COMPUTERLINK
We Make Technology Work!

TAB 14

Bidders Registry-Eligibility Certificate

RFP NO: PRDE-OSIATD-FY2018-001
MOBILE DEVICE TECHNOLOGY AND SERVICES FOR NEW GENERALTION SCHOOLS
PUERTO RICO DEPARTMENT OF EDUCATION

Estado Libre Asociado de Puerto Rico

Administración de Servicios Generales
Registro Único de Licitadores

CERTIFICADO DE ELEGIBILIDAD

Fecha de Expedición	Número de Certificado	Fecha de Vencimiento
19-Julio-2017	**201701513**	**19-Julio-2018**

Nombre del Licitador: **COMPUTER NETWORK SYSTEMS CORP.**

Seguro Social: **660444154**

Número de Licitador: **1658**

Dirección Postal: **PO BOX 193724 , SAN JUAN PR, 00919-3724**

Teléfono: **7872505465 /**

Fax: **7872500306**

Email: **iris.borges@computerlink.cc**

* Persona Autorizada a Firmar Oferta	Título que Ostenta
ANGEL M. OTERO	GERENTE DE CUENTA
DAVID MORALES	VICE-PRESIDENTE
JESENIA LOPEZ	GERENTE DE CUENTA

*Este Licitador tiene otras personas autorizadas a firmar ofertas. Favor de consultar la página de Internet del Registro Único de Licitadores o contactar al Licitador para más información.

ADVERTENCIA: Cualquier alteración anula este certificado y podría ser sancionado criminalmente conforme a las disposiciones aplicables del Código Penal de Puerto Rico. Para validar la información en este certificado, favor de acceder al portal https://serviciosenlinea.gobierno.pr/validacionelectronica/ y usar el número de certificado como código de validación.

ESTADO LIBRE ASOCIADO DE PUERTO RICO
Administración de Servicios Generales

pr.gov

GOBIERNO DE PUERTO RICO

JUNTA PARA LA INVERSIÓN EN LA INDUSTRIA PUERTORRIQUEÑA

RESOLUCIÓN

DE CERTIFICACIÓN PARA CONCEDER EL POR CIENTO DEL PARÁMETRO DE INVERSIÓN A LOS PRODUCTOS DE LA EMPRESA:

Computer Network Systems Corp. d/b/a Computerlink
P.O. Box 193724
SAN JUAN P.R. 00919-3724

Clasificación: Distribución

La Junta de Inversión en la Industria Puertorriqueña, en su reunión ordinaria del mes de abril de 2018, evaluó la solicitud de por ciento del parámetro de inversión por distribución de los productos que más adelante se detallan. Evaluada la solicitud del peticionario y por la facultad que le confiere la Ley Núm. 14 de 8 de enero de 2004, según enmendada, se asigna:

PARÁMETRO DE INVERSIÓN DE DOS por ciento (2%).

Este parámetro de inversión de los productos distribuidos en Puerto Rico por el peticionario (con exclusión de cualquiera otro producto no incluido en esta Resolución) y que a continuación se describen, cuando se presente junto con una oferta o licitación responsiva, será aplicado al momento de la adjudicación en las compras del Estado Libre Asociado de Puerto Rico y sus agencias (según definidas por Ley).

	Producto	**Marca**
1	Proyectores	3M COMPANY
2	Accesorios / Materiales Computadoras	3M COMPANY
3	Licencias de Programas	AIRWATCH
4	Programas (Software)	AIRWATCH
5	Licencias de Programas	ACCPAC
6	Programas (Software)	ACCPAC
7	Monitores	ACER
8	Computadoras All in One	ACER
9	Proyectores	ACER
10	Accesorios de Computadoras	ACER
11	Computadores Portátiles	ACER
12	Computadoras Personales	ACER
13	Tablet	ACER
14	Netbook	ACER

15	Licencias de Programas	ADOBE
16	Programas (Software)	ADOBE
17	Monitores,TV, Multifution Displays	AOC
18	PC/Tablets	AOC
19	Baterías	APC
20	Gabinetes	APC
21	UPS	APC
22	KVM Switch	APC
23	Refrigeracion	APC
24	Distribucion de Energia	APC
25	Software de Administracion	APC
26	Line Conditioner	APC
27	Data Center , Server Room	APC
28	Ipod	APPLE
29	Macbook	APPLE
30	Imac	APPLE
31	Mac Pro	APPLE
32	IPADS	APPLE
33	Mac Mini	APPLE
34	Apple TV	APPLE
35	Iphone	APPLE
36	Accesorios de Computadoras	APPLE
37	VideoPhone	ASUS
38	Accesorios de Computadoras	ASUS
39	DVD's	ASUS
40	DVDRW	ASUS
41	Modems	ASUS
42	Proyectores	ASUS
43	Tablet	ASUS
44	NetBooks	ASUS
45	Laptop	ASUS
46	All in One PC	ASUS
47	PAD	ASUS
48	Adapter	AXIOM
49	Card Reader	AXIOM
50	Memorias	AXIOM
51	Transceiver	AXIOM
52	Power Supplies	AXIOM
53	Discos Duros	AXIOM

54	Replicadodes de Puertos	AXIOM
55	Repeaters	AXIOM
56	Converters	AXIOM
57	Mouse	BELKIN
58	Teclados	BELKIN
59	Accesorios de Computadoras	BELKIN
60	KVM	BELKIN
61	LCD Rack Console	BELKIN
62	Adapters , Networking	BELKIN
63	Flash Card Reader	BELKIN
64	AV Carts	BRETFORD
65	Book Trucks	BRETFORD
66	Carrels	BRETFORD
67	Circulation Desk	BRETFORD
68	Credenzas	BRETFORD
69	Notebook Carts	BRETFORD
70	Storage Networking	BROCADE
71	Swtches & Routers	BROCADE
72	Software Network	BROCADE
73	Automation	BROCADE
74	Network Visibility	BROCADE
75	Mobile Networking	BROCADE
76	Transceivers	BROCADE
77	Network Management	BROCADE
78	Scanners	BROTHER
79	Video Conferencia	BROTHER
80	Fax	BROTHER
81	Impresora Laser	BROTHER
82	Impresoras de Impacto	BROTHER
83	Impresoras de Tinta	BROTHER
84	Toner , Cintas	BROTHER
85	Impresoras Multifuncionales	BROTHER
86	NAS	BUFFALO TECHNOLOGY
87	Hard Drive	BUFFALO TECHNOLOGY
88	DriveStation	BUFFALO TECHNOLOGY
89	Adapter	BUFFALO TECHNOLOGY
90	Camaras Digitales	CANON
91	Fax	CANON
92	Impresoras de Tinta	CANON

93	Impresoras Laser	CANON
94	Memorias	CANON
95	Toner	CANON
96	AV Furniture	CHIEF
97	Custom made cables	CABLES TO GO
98	Access Point	CISCO
99	Antenas	CISCO
100	Firewall	CISCO
101	Modem	CISCO
102	Network Card	CISCO
103	Telefonía IP	CISCO
104	Wireless Lan Card	CISCO
105	Appliances	CISCO
106	Router & Switch	CISCO
107	Security Appliance	CISCO
108	Servidores	CISCO
109	Unidades de Resguardo (Storage)	CISCO
110	Software	CISCO
111	Licencias de Programas	CISCO
112	Baterías, UPS	HEWLETT PACKARD
113	Camaras Digitales	HEWLETT PACKARD
114	CD writers,CD-Roms,DVD's, DVDRW	HEWLETT PACKARD
115	Blu-ray	HEWLETT PACKARD
116	Piezas de Computadoras	HEWLETT PACKARD
117	Accesorios de Computadoras	HEWLETT PACKARD
118	Proyectores	HEWLETT PACKARD
119	Monitores , TV, Multifution Displays	HEWLETT PACKARD
120	Digital Signage	HEWLETT PACKARD
121	Racks, Gabinetes, Data Center	HEWLETT PACKARD
122	Impresoras Laser,Tinta,Cinta,Termal,3d	HEWLETT PACKARD
123	Impr. Multifuncionales Laser, Tintas	HEWLETT PACKARD
124	Toner, Tintas, Cintas, Papel Termal	HEWLETT PACKARD
125	Scanner	HEWLETT PACKARD
126	Access Point	HEWLETT PACKARD
127	Cuadro Telefónico	HEWLETT PACKARD
128	Antenas	HEWLETT PACKARD
129	Firewall & Security Appliance	HEWLETT PACKARD
130	Router , Switches	HEWLETT PACKARD
131	Software	HEWLETT PACKARD

132	Licencias de Programas	HEWLETT PACKARD
133	Appliances	HEWLETT PACKARD
134	Wireless Lan Card	HEWLETT PACKARD
135	Computadoras Personales	HEWLETT PACKARD
136	Computadoras Portátiles	HEWLETT PACKARD
137	PAD	HEWLETT PACKARD
138	Tablet	HEWLETT PACKARD
139	Cart, Storage, Station, Charging Cart	HEWLETT PACKARD
140	All in One PC	HEWLETT PACKARD
141	Terminales (Thin Client)	HEWLETT PACKARD
142	Servidores	HEWLETT PACKARD
143	Unidades de Resguardo (Storage)	HEWLETT PACKARD
144	Enclosure	HEWLETT PACKARD
145	Kiosks	HEWLETT PACKARD
146	Media Player	HEWLETT PACKARD
147	Licencias de Programas	COMPUTER ASSOCIATES
148	Programas (Software)	COMPUTER ASSOCIATES
149	Screen Surface Selection	DA-LITE
150	Electric Screens	DA-LITE
151	Manual Wall and Ceiling	DA-LITE
152	Portable and Tripod Screens	DA-LITE
153	Fixed Frame Screens	DA-LITE
154	Rear Projection Screens	DA-LITE
155	Fast-Fold Portable Screens	DA-LITE
156	Carts and Stands	DA-LITE
157	Oravisual Easels	DA-LITE
158	Multi-Media Support Funiture	DA-LITE
159	Lecterns,Equipment Rack Carts	DA-LITE
160	and Conferen Cabinets	DA-LITE
161	Software & Licences	DATA CORE
162	Monitores	DELL
163	Proyectores	DELL
164	Rack	DELL
165	Computadoras personales	DELL
166	Computadoras portátiles	DELL
167	Impresoras Laser	DELL
168	Servidores	DELL
169	Enclosure	DELL
170	Unidades de Resguardo (Storage)	DELL

171	Switches	DELL
172	Router	DELL
173	Firewall	D-LINK
174	Modem	D-LINK
175	Network Card	D-LINK
176	PrintServer	D-LINK
177	Router	D-LINK
178	Switch	D-LINK
179	Screen Surface Selection	DRAPER
180	Electric Screens	DRAPER
181	Manual Wall and Ceilling Screens	DRAPER
182	Portable and Tripod Screens	DRAPER
183	AV	DRAPER
184	Projection Screen	DRAPER
185	Lifts and mounts	DRAPER
186	Window shades	DRAPER
187	Home Theatre	DRAPER
188	Fixed Frame Screens	DRAPER
189	Rear Projection Screens	DRAPER
190	Fast-Fold Portable Screens	DRAPER
191	Carts and Stands	DRAPER
192	Oravisual Easels	DRAPER
193	Multi-Media Support Funiture	DRAPER
194	Lecterns,Equipment Rack Carts	DRAPER
195	and Conferen Cabinets	DRAPER
196	Baterías	EATON
197	Gabinetes	EATON
198	UPS	EATON
199	KVM Switch	EATON
200	Refrigeracion	EATON
201	Distribucion de Energia	EATON
202	Software de Administracion	EATON
203	Line Conditioner	EATON
204	Unidades de Resguardo (Storage)	EMC
205	Unidades de Backup	EMC
206	Appliances	EMC
207	Software	EMC
208	Licencias de Programas	EMC
209	Baterías	ENERGIZER

210	UPS	ENERGIZER
211	Monitores	ENVISION
212	Adapters & Interface/ Cables	EPSON
213	Multifuntion/ Fax Machines	EPSON
214	LAN/Wan Bus Adapters/Serials I/O	EPSON
215	Scanners	EPSON
216	Projector	EPSON
217	Printers	EPSON
218	Desk Mount	ERGOTRON
219	Wall mount	ERGOTRON
220	Carts and Stands	ERGOTRON
221	Multimonitor Mount	ERGOTRON
222	Large Display Mount	ERGOTRON
223	Laptop Mounts	ERGOTRON
224	Plastic card printers badge	EVOLIS
225	Ribbons	EVOLIS
226	Unidades de Resguardo	EXABYTE
227	DVD's	EXABYTE
228	DVDRW	EXABYTE
229	Mouse	EXABYTE
230	Teclados	EXABYTE
231	Shredders	FELLOWES
232	Ergonomic Workspaces	FELLOWES
233	Binding Machines	FELLOWES
234	Laminating machines	FELLOWES
235	Cutters	FELLOWES
236	Trimmers	FELLOWES
237	Air Purifiers	FELLOWES
238	Firewalls	FORTINET
239	Security Subscription , Appliance	FORTINET
240	IPS , Sand Box	FORTINET
241	Endpoint Security	FORTINET
242	Web Application Firewall (WAF)	FORTINET
243	SIEM	FORTINET
244	Secure Switching	FORTINET
245	Identity and Access Management	FORTINET
246	Application Delivery Controller (ADC)	FORTINET
247	DDoS	FORTINET
248	Accesorios de Computadoras	FUJITSU

249	CD Roms	FUJITSU
250	DVD's	FUJITSU
251	DVDRW	FUJITSU
252	Hard Drives	FUJITSU
253	Scanners	FUJITSU
254	Gabinetes	GREATLAKES
255	Baterías	IBM
256	CD writers	IBM
257	CD-Roms	IBM
258	DVD	IBM
259	Memoria	IBM
260	Modem	IBM
261	Mouse	IBM
262	Servidores	IBM
263	Unidades de Resguardo (Storage)	IBM
264	RACK	IBM
265	Servidores	IBM
266	Appliances	IBM
267	Enclosure	IBM
268	Software	IBM
269	Licencias de Programas	IBM
270	IdentiMetrics Finger Scanning ID System	IBM
271	Proyectores	INFOCUS
272	Pantallas	INFOCUS
273	Mondopad	INFOCUS
274	Wireless Products	INFOCUS
275	Network Card	INTEL
276	PrintServer	INTEL
277	Procesadores	INTEL
278	Router	INTEL
279	Switch	INTEL
280	Racks	IOMEGA
281	Tintas	IOMEGA
282	Unidades de Resguardo	IOMEGA
283	Discos Duros	IOMEGA
284	Camaras/Digital Camaras	JVC
285	Peripherals	JVC
286	Storage	JVC
287	UPS/Power Device	JVC

288	Supplies and Accessories	JVC
289	CD Rom	KENSIGTON
290	DVD's	KENSIGTON
291	Mouse	KENSIGTON
292	Teclados	KENSIGTON
293	Accesorios de Computadoras	KENSIGTON
294	DVDRW	KENSIGTON
295	Memorias	KINGSTON
296	Flash Card Readers	KINGSTON
297	USB Memory	KINGSTON
298	Adapter	LACIE
299	Card Reader	LACIE
300	Speakers	LACIE
301	Accesorios de Computadoras	LACIE
302	Monitores	LACIE
303	Discos Duros	LACIE
304	Hosted Video Conferencing	LIFESIZE
305	Software Products	LIFESIZE
306	Cameras	LIFESIZE
307	Phones	LIFESIZE
308	MicPods	LIFESIZE
309	DVD/CD Drives	LG
310	LCD/LCD TV/ Plasmas TV	LG
311	Home Theater	LG
312	AV Furniture	LG
313	Remote Controls	LG
314	Blu-Ray	LG
315	Proyectores	LG
316	Cableado Estructurado	LEVITON
317	Computadoras Portátiles	LENOVO
318	Computadoras Personales	LENOVO
319	Accesorios de Computadoras	LENOVO
320	Tablet	LENOVO
321	Terminales (Thin Client)	LENOVO
322	Servidores	LENOVO
323	Unidades de Resguardo (Storage)	LENOVO
324	Workstation	LENOVO
325	All in one PC	LENOVO
326	Cintas, Toner , Tinta	LEXMARK

327	Impresora Laser, Tinta , Impacto	LEXMARK
328	Impresoras de Impacto	LEXMARK
329	Impresoras Multifuncionales Laser y Tinta	LEXMARK
330	Software	LEXMARK
331	Accesorios de Impresoras	LEXMARK
332	Briges/Routers	LINKSYS
333	Hubs & Switches	LINKSYS
334	LAN/Wan Bus Adapters	LINKSYS
335	Converters/Transceiver	LINKSYS
336	Wireless Products	LINKSYS
337	Accesorios de Computadoras	LOGITECH
338	Bocinas	LOGITECH
339	Micrófonos	LOGITECH
340	Mouse	LOGITECH
341	Teclados	LOGITECH
342	Web Cam	LOGITECH
343	Licencias de Programas	McAFEE
344	Programas (Software)	McAFEE
345	Licencias de Programas	MICROSOFT
346	Programas (Software)	MICROSOFT
347	Accesorios de Computadoras	MICROSOFT
348	Tablet	MICROSOFT
349	Software	NAUCE OPEN LICENSE
350	Licencias de Programas	NAUCE OPEN LICENSE
351	Monitores	NEC
352	Proyectores	NEC
353	Server & Storage	NEC
354	Modem	NETGEAR
355	Network Card	NETGEAR
356	Access Point	NETGEAR
357	Firewall	NETGEAR
358	Switches	NETGEAR
359	PrintServer	NETGEAR
360	Router	NETGEAR
361	Switches	NETGEAR
362	Router	NORTEL
363	Switch	NORTEL
364	Telephone	NORTEL
365	Cintas	OKIDATA

366	Impresora Laser	OKIDATA
367	Impresoras de Impacto	OKIDATA
368	Impresoras de Tinta	OKIDATA
369	Toner	OKIDATA
370	Camaras Digitales	OLYMPUS
371	Memorias	OLYMPUS
372	Cableado Estructurado	ORTRONICS
373	Cintas	PANASONIC
374	Comunication Headset	PANASONIC
375	Computadoras portátiles	PANASONIC
376	Fax	PANASONIC
377	Impresoras Laser	PANASONIC
378	Toners	PANASONIC
379	Computadoras Portatiles (Tough Book)	PANASONIC
380	Network camera	PANASONIC
381	Impresoras Multifuncionales	PANASONIC
382	Interactive Board (Whiteboard)	PANASONIC
383	Proyectores	PANASONIC
384	Headsets	PLANTRONICS
385	Lifter	PLANTRONICS
386	Headset battery	PLANTRONICS
387	Amplifier	PLANTRONICS
388	Universal Video Collaboration	POLYCOM
389	Video Resource Management	POLYCOM
390	Virtualization Management	POLYCOM
391	Telepresence and Video	POLYCOM
392	RealPresence	POLYCOM
393	Collaboration System	POLYCOM
394	Conference Station	POLYCOM
395	IP Conference Phone	POLYCOM
396	IP Phone	POLYCOM
397	Desktop Phone	POLYCOM
398	Conferencing Solutions	POLYCOM
399	Baterías	POWER WARE
400	UPS	POWER WARE
401	Antenas	POWER WARE
402	Equipos de Comunicación Wireless	POWER WARE
403	Unidades de Resguardo	QUANTUM
404	Point to Pont Wireless	RADWIN

405	Point to Multi-Point Wireless	RADWIN
406	FiberinMotion Wireless	RADWIN
407	Management Applications	RADWIN
408	Software & Licenses	REDHAT
409	Impresoras Laser	SAMSUNG
410	Monitores	SAMSUNG
411	Toners	SAMSUNG
412	Tablet	SAMSUNG
413	Smart Phones	SAMSUNG
414	Wearable	SAMSUNG
415	Cameras	SAMSUNG
416	Memorias, Mobile Storage	SANDISK
417	Hard Drive	SEAGATE
418	Enclosure	SEAGATE
419	Adapter	SIIG
420	Card Reader	SIIG
421	Speakers	SIIG
422	Firewall	SONICWALL
423	Camaras Digitales	SONY
424	Proyectores	SONY
425	Camaras de Video	SONY
426	Computadoras Portatiles	SONY
427	Tablet	SONY
428	All in One Computer	SONY
429	Accesorios de Computadoras	SONY
430	Analytical Statistics Software	SPSS
431	LCD/LCD TV/ Plasmas TV	SHARP
432	Adapter	STARTECH
433	Card Reader	STARTECH
434	Speakers	STARTECH
435	Docking Station	STARTECH
436	KVM Console	STARTECH
437	Licencias de Programas	SYMANTEC
438	Programas (Software)	SYMANTEC
439	Cases & Bags	TARGUS
440	LaptopCooling	TARGUS
441	Mice/Pointers	TARGUS
442	Keyboards/Keypads	TARGUS
443	Doking Station/ Port Replicator	TARGUS

444	Acesorios de Computadoras	TARGUS
445	Baterías	TOSHIBA
446	CD Roms	TOSHIBA
447	Cd Writers	TOSHIBA
448	Computadoras Portátiles	TOSHIBA
449	DVD's	TOSHIBA
450	DVDRW	TOSHIBA
451	Hard Dives	TOSHIBA
452	Memorias	TOSHIBA
453	Modem	TOSHIBA
454	Monitores	TOSHIBA
455	Accesorios de Computadoras	TOSHIBA
456	Wireless	TRENDNET
457	Fiber Switch	TRENDNET
458	Gigabit Voice over Internet Protocol (VoIP)	TRENDNET
459	Keyboard/Video/Mouse (KVM)	TRENDNET
460	Internet Camera	TRENDNET
461	Network accessories Print servers	TRENDNET
462	Bluetooth	TRENDNET
463	Network adapters	TRENDNET
464	Powerlines	TRENDNET
465	Baterías	TRIPP LITE
466	Gabinetes, Rack	TRIPP LITE
467	Data Center	TRIPP LITE
468	UPS	TRIPP LITE
469	KVM Switch	TRIPP LITE
470	Refrigeracion	TRIPP LITE
471	Distribucion de Energia	TRIPP LITE
472	Software de Administracion	TRIPP LITE
473	Line Conditioner	TRIPP LITE
474	Cart, Storage, Station, Charging Cart	TRIPP LITE
475	LCD Rack Console	TRIPP LITE
476	Software	VEEAN
477	Licencias de Programas	VEEAN
478	Virtual Infrastructure Backup and Replication	VEEAN
479	Blu-ray , DVD, CD	VERBATIM
480	Hard drives, SSD	VERBATIM
481	USB drives	VERBATIM

482	Memory Cards	VERBATIM
483	Accessories	VERBATIM
484	Licencias de Programas	VERITAS
485	Programas (Software)	VERITAS
486	Layaout	VERITY
487	Scan	VERITY
488	Touch Writer	VERITY
489	Count	VERITY
490	Relay	VERITY
491	Build	VERITY
492	Computadoras Portátiles	VIEWSONIC
493	Monitores,Digital Signage,Comercial Display	VIEWSONIC
494	Accesorios de Computadoras	VIEWSONIC
495	Tablet	VIEWSONIC
496	Pantallas Interactivas	VIEWSONIC
497	Proyectores	VIEWSONIC
498	All in One Computer	VIEWSONIC
499	Kiosks	VIEWSONIC
500	Media Player	VIEWSONIC
501	Software	VISION SOLUTION
502	Licencias de Programas	VISION SOLUTION
503	Virtual Infrastructure Backup and Replication	VISION SOLUTION
504	Software	VMWARE
505	Licencias de Programas	VMWARE
506	Software	WATERFORD
507	Licencias de Programas	WATERFORD
508	Internal and External Hard Drive	WESTERN DIGITAL
509	Enclosure	WESTERN DIGITAL
510	Licencias de Programas	WRQ
511	Programas (Software)	WRQ
512	Monitores	WYSE
513	Teclados	WYSE
514	Terminales	WYSE
515	Impresoras Laser	XEROX
516	Toner	XEROX
517	Impresoras Multifuncionales	XEROX
518	Fotocopiadoras	XEROX

519	Proyectores	3M COMPANY
520	Accesorios / Materiales Computadoras	3M COMPANY
521	Licencias de Programas	AIRWATCH
522	Programas (Software)	AIRWATCH
523	Licencias de Programas	ACCPAC
524	Programas (Software)	ACCPAC
525	Monitores	ACER
526	Computadoras All in One	ACER
527	Proyectores	ACER
528	Accesorios de Computadoras	ACER
529	Computadores Portátiles	ACER
530	Computadoras Personales	ACER
531	Tablet	ACER
532	Netbook	ACER
533	Licencias de Programas	ADOBE
534	Programas (Software)	ADOBE
535	Monitores,TV, Multifution Displays	AOC
536	PC/Tablets	AOC
537	Baterías	APC
538	Gabinetes	APC
539	UPS	APC
540	KVM Switch	APC
541	Refrigeracion	APC
542	Distribucion de Energia	APC
543	Software de Administracion	APC
544	Line Conditioner	APC
545	Data Center , Server Room	APC
546	Ipod	APPLE
547	Macbook	APPLE
548	Imac	APPLE
549	Mac Pro	APPLE
550	IPADS	APPLE
551	Mac Mini	APPLE
552	Apple TV	APPLE
553	Iphone	APPLE
554	Accesorios de Computadoras	APPLE
555	VideoPhone	ASUS
556	Accesorios de Computadoras	ASUS
557	DVD's	ASUS

558	DVDRW	ASUS
559	Modems	ASUS
560	Proyectores	ASUS
561	Tablet	ASUS
562	NetBooks	ASUS
563	Laptop	ASUS
564	All in One PC	ASUS
565	PAD	ASUS
566	Adapter	AXIOM
567	Card Reader	AXIOM
568	Memorias	AXIOM
569	Transceiver	AXIOM
570	Power Supplies	AXIOM
571	Discos Duros	AXIOM
572	Replicadodes de Puertos	AXIOM
573	Repeaters	AXIOM
574	Converters	AXIOM
575	Mouse	BELKIN
576	Teclados	BELKIN
577	Accesorios de Computadoras	BELKIN
578	KVM	BELKIN
579	LCD Rack Console	BELKIN
580	Adapters , Networking	BELKIN
581	Flash Card Reader	BELKIN
582	AV Carts	BRETFORD
583	Book Trucks	BRETFORD
584	Carrels	BRETFORD
585	Circulation Desk	BRETFORD
586	Credenzas	BRETFORD
587	Notebook Carts	BRETFORD
588	Storage Networking	BROCADE
589	Swtches & Routers	BROCADE
590	Software Network	BROCADE
591	Automation	BROCADE
592	Network Visibility	BROCADE
593	Mobile Networking	BROCADE
594	Transceivers	BROCADE
595	Network Management	BROCADE
596	Scanners	BROTHER

597	Video Conferencia	BROTHER
598	Fax	BROTHER
599	Impresora Laser	BROTHER
600	Impresoras de Impacto	BROTHER
601	Impresoras de Tinta	BROTHER
602	Toner , Cintas	BROTHER
603	Impresoras Multifuncionales	BROTHER
604	NAS	BUFFALO TECHNOLOGY
605	Hard Drive	BUFFALO TECHNOLOGY
606	DriveStation	BUFFALO TECHNOLOGY
607	Adapter	BUFFALO TECHNOLOGY
608	Camaras Digitales	CANON
609	Fax	CANON
610	Impresoras de Tinta	CANON
611	Impresoras Laser	CANON
612	Memorias	CANON
613	Toner	CANON
614	AV Furniture	CHIEF
615	Custom made cables	CABLES TO GO
616	Access Point	CISCO
617	Antenas	CISCO
618	Firewall	CISCO
619	Modem	CISCO
620	Network Card	CISCO
621	Telefonía IP	CISCO
622	Wireless Lan Card	CISCO
623	Appliances	CISCO
624	Router & Switch	CISCO
625	Security Appliance	CISCO
626	Servidores	CISCO
627	Unidades de Resguardo (Storage)	CISCO
628	Software	CISCO
629	Licencias de Programas	CISCO
630	Baterías, UPS	HEWLETT PACKARD
631	Camaras Digitales	HEWLETT PACKARD
632	CD writers,CD-Roms,DVD's, DVDRW	HEWLETT PACKARD
633	Blu-ray	HEWLETT PACKARD
634	Piezas de Computadoras	HEWLETT PACKARD
635	Accesorios de Computadoras	HEWLETT PACKARD

636	Proyectores	HEWLETT PACKARD
637	Monitores , TV, Multifution Displays	HEWLETT PACKARD
638	Digital Signage	HEWLETT PACKARD
639	Racks, Gabinetes, Data Center	HEWLETT PACKARD
640	Impresoras Laser,Tinta,Cinta,Termal,3d	HEWLETT PACKARD
641	Impr. Multifuncionales Laser, Tintas	HEWLETT PACKARD
642	Toner, Tintas, Cintas, Papel Termal	HEWLETT PACKARD
643	Scanner	HEWLETT PACKARD
644	Access Point	HEWLETT PACKARD
645	Cuadro Telefónico	HEWLETT PACKARD
646	Antenas	HEWLETT PACKARD
647	Firewall & Security Appliance	HEWLETT PACKARD
648	Router , Switches	HEWLETT PACKARD
649	Software	HEWLETT PACKARD
650	Licencias de Programas	HEWLETT PACKARD
651	Appliances	HEWLETT PACKARD
652	Wireless Lan Card	HEWLETT PACKARD
653	Computadoras Personales	HEWLETT PACKARD
654	Computadoras Portátiles	HEWLETT PACKARD
655	PAD	HEWLETT PACKARD
656	Tablet	HEWLETT PACKARD
657	Cart, Storage, Station, Charging Cart	HEWLETT PACKARD
658	All in One PC	HEWLETT PACKARD
659	Terminales (Thin Client)	HEWLETT PACKARD
660	Servidores	HEWLETT PACKARD
661	Unidades de Resguardo (Storage)	HEWLETT PACKARD
662	Enclosure	HEWLETT PACKARD
663	Kiosks	HEWLETT PACKARD
664	Media Player	HEWLETT PACKARD
665	Licencias de Programas	COMPUTER ASSOCIATES
666	Programas (Software)	COMPUTER ASSOCIATES
667	Screen Surface Selection	DA-LITE
668	Electric Screens	DA-LITE
669	Manual Wall and Ceiling	DA-LITE
670	Portable and Tripod Screens	DA-LITE
671	Fixed Frame Screens	DA-LITE
672	Rear Projection Screens	DA-LITE
673	Fast-Fold Portable Screens	DA-LITE
674	Carts and Stands	DA-LITE

675	Oravisual Easels	DA-LITE
676	Multi-Media Support Funiture	DA-LITE
677	Lecterns,Equipment Rack Carts	DA-LITE
678	and Conferen Cabinets	DA-LITE
679	Software & Licences	DATA CORE
680	Monitores	DELL
681	Proyectores	DELL
682	Rack	DELL
683	Computadoras personales	DELL
684	Computadoras portátiles	DELL
685	Impresoras Laser	DELL
686	Servidores	DELL
687	Enclosure	DELL
688	Unidades de Resguardo (Storage)	DELL
689	Switches	DELL
690	Router	DELL
691	Firewall	D-LINK
692	Modem	D-LINK
693	Network Card	D-LINK
694	PrintServer	D-LINK
695	Router	D-LINK
696	Switch	D-LINK
697	Screen Surface Selection	DRAPER
698	Electric Screens	DRAPER
699	Manual Wall and Ceilling Screens	DRAPER
700	Portable and Tripod Screens	DRAPER
701	AV	DRAPER
702	Projection Screen	DRAPER
703	Lifts and mounts	DRAPER
704	Window shades	DRAPER
705	Home Theatre	DRAPER
706	Fixed Frame Screens	DRAPER
707	Rear Projection Screens	DRAPER
708	Fast-Fold Portable Screens	DRAPER
709	Carts and Stands	DRAPER
710	Oravisual Easels	DRAPER
711	Multi-Media Support Funiture	DRAPER
712	Lecterns,Equipment Rack Carts	DRAPER
713	and Conferen Cabinets	DRAPER

714	Baterías	EATON
715	Gabinetes	EATON
716	UPS	EATON
717	KVM Switch	EATON
718	Refrigeracion	EATON
719	Distribucion de Energia	EATON
720	Software de Administracion	EATON
721	Line Conditioner	EATON
722	Unidades de Resguardo (Storage)	EMC
723	Unidades de Backup	EMC
724	Appliances	EMC
725	Software	EMC
726	Licencias de Programas	EMC
727	Baterías	ENERGIZER
728	UPS	ENERGIZER
729	Monitores	ENVISION
730	Adapters & Interface/ Cables	EPSON
731	Multifuntion/ Fax Machines	EPSON
732	LAN/Wan Bus Adapters/Serials I/O	EPSON
733	Scanners	EPSON
734	Projector	EPSON
735	Printers	EPSON
736	Desk Mount	ERGOTRON
737	Wall mount	ERGOTRON
738	Carts and Stands	ERGOTRON
739	Multimonitor Mount	ERGOTRON
740	Large Display Mount	ERGOTRON
741	Laptop Mounts	ERGOTRON
742	Plastic card printers badge	EVOLIS
743	Ribbons	EVOLIS
744	Unidades de Resguardo	EXABYTE
745	DVD's	EXABYTE
746	DVDRW	EXABYTE
747	Mouse	EXABYTE
748	Teclados	EXABYTE
749	Shredders	FELLOWES
750	Ergonomic Workspaces	FELLOWES
751	Binding Machines	FELLOWES
752	Laminating machines	FELLOWES

753	Cutters	FELLOWES
754	Trimmers	FELLOWES
755	Air Purifiers	FELLOWES
756	Firewalls	FORTINET
757	Security Subscription , Appliance	FORTINET
758	IPS , Sand Box	FORTINET
759	Endpoint Security	FORTINET
760	Web Application Firewall (WAF)	FORTINET
761	SIEM	FORTINET
762	Secure Switching	FORTINET
763	Identity and Access Management	FORTINET
764	Application Delivery Controller (ADC)	FORTINET
765	DDoS	FORTINET
766	Accesorios de Computadoras	FUJITSU
767	CD Roms	FUJITSU
768	DVD's	FUJITSU
769	DVDRW	FUJITSU
770	Hard Drives	FUJITSU
771	Scanners	FUJITSU
772	Gabinetes	GREATLAKES
773	Baterías	IBM
774	CD writers	IBM
775	CD-Roms	IBM
776	DVD	IBM
777	Memoria	IBM
778	Modem	IBM
779	Mouse	IBM
780	Servidores	IBM
781	Unidades de Resguardo (Storage)	IBM
782	RACK	IBM
783	Servidores	IBM
784	Appliances	IBM
785	Enclosure	IBM
786	Software	IBM
787	Licencias de Programas	IBM
788	IdentiMetrics Finger Scanning ID System	IBM
789	Proyectores	INFOCUS
790	Pantallas	INFOCUS
791	Mondopad	INFOCUS

792	Wireless Products	INFOCUS
793	Network Card	INTEL
794	PrintServer	INTEL
795	Procesadores	INTEL
796	Router	INTEL
797	Switch	INTEL
798	Racks	IOMEGA
799	Tintas	IOMEGA
800	Unidades de Resguardo	IOMEGA
801	Discos Duros	IOMEGA
802	Camaras/Digital Camaras	JVC
803	Peripherals	JVC
804	Storage	JVC
805	UPS/Power Device	JVC
806	Supplies and Accessories	JVC
807	CD Rom	KENSIGTON
808	DVD's	KENSIGTON
809	Mouse	KENSIGTON
810	Teclados	KENSIGTON
811	Accesorios de Computadoras	KENSIGTON
812	DVDRW	KENSIGTON
813	Memorias	KINGSTON
814	Flash Card Readers	KINGSTON
815	USB Memory	KINGSTON
816	Adapter	LACIE
817	Card Reader	LACIE
818	Speakers	LACIE
819	Accesorios de Computadoras	LACIE
820	Monitores	LACIE
821	Discos Duros	LACIE
822	Hosted Video Conferencing	LIFESIZE
823	Software Products	LIFESIZE
824	Cameras	LIFESIZE
825	Phones	LIFESIZE
826	MicPods	LIFESIZE
827	DVD/CD Drives	LG
828	LCD/LCD TV/ Plasmas TV	LG
829	Home Theater	LG
830	AV Furniture	LG

831	Remote Controls	LG
832	Blu-Ray	LG
833	Proyectores	LG
834	Cableado Estructurado	LEVITON
835	Computadoras Portátiles	LENOVO
836	Computadoras Personales	LENOVO
837	Accesorios de Computadoras	LENOVO
838	Tablet	LENOVO
839	Terminales (Thin Client)	LENOVO
840	Servidores	LENOVO
841	Unidades de Resguardo (Storage)	LENOVO
842	Workstation	LENOVO
843	All in one PC	LENOVO
844	Cintas, Toner , Tinta	LEXMARK
845	Impresora Laser, Tinta , Impacto	LEXMARK
846	Impresoras de Impacto	LEXMARK
847	Impresoras Multifuncionales Laser y Tinta	LEXMARK
848	Software	LEXMARK
849	Accesorios de Impresoras	LEXMARK
850	Briges/Routers	LINKSYS
851	Hubs & Switches	LINKSYS
852	LAN/Wan Bus Adapters	LINKSYS
853	Converters/Transceiver	LINKSYS
854	Wireless Products	LINKSYS
855	Accesorios de Computadoras	LOGITECH
856	Bocinas	LOGITECH
857	Micrófonos	LOGITECH
858	Mouse	LOGITECH
859	Teclados	LOGITECH
860	Web Cam	LOGITECH
861	Licencias de Programas	McAFEE
862	Programas (Software)	McAFEE
863	Licencias de Programas	MICROSOFT
864	Programas (Software)	MICROSOFT
865	Accesorios de Computadoras	MICROSOFT
866	Tablet	MICROSOFT
867	Software	NAUCE OPEN LICENSE
868	Licencias de Programas	NAUCE OPEN LICENSE
869	Monitores	NEC

870	Proyectores	NEC
871	Server & Storage	NEC
872	Modem	NETGEAR
873	Network Card	NETGEAR
874	Access Point	NETGEAR
875	Firewall	NETGEAR
876	Switches	NETGEAR
877	PrintServer	NETGEAR
878	Router	NETGEAR
879	Switches	NETGEAR
880	Router	NORTEL
881	Switch	NORTEL
882	Telephone	NORTEL
883	Cintas	OKIDATA
884	Impresora Laser	OKIDATA
885	Impresoras de Impacto	OKIDATA
886	Impresoras de Tinta	OKIDATA
887	Toner	OKIDATA
888	Camaras Digitales	OLYMPUS
889	Memorias	OLYMPUS
890	Cableado Estructurado	ORTRONICS
891	Cintas	PANASONIC
892	Comunication Headset	PANASONIC
893	Computadoras portátiles	PANASONIC
894	Fax	PANASONIC
895	Impresoras Laser	PANASONIC
896	Toners	PANASONIC
897	Computadoras Portatiles (Tough Book)	PANASONIC
898	Network camera	PANASONIC
899	Impresoras Multifuncionales	PANASONIC
900	Interactive Board (Whiteboard)	PANASONIC
901	Proyectores	PANASONIC
902	Headsets	PLANTRONICS
903	Lifter	PLANTRONICS
904	Headset battery	PLANTRONICS
905	Amplifier	PLANTRONICS
906	Universal Video Collaboration	POLYCOM
907	Video Resource Management	POLYCOM
908	Virtualization Management	POLYCOM

909	Telepresence and Video	POLYCOM
910	RealPresence	POLYCOM
911	Collaboration System	POLYCOM
912	Conference Station	POLYCOM
913	IP Conference Phone	POLYCOM
914	IP Phone	POLYCOM
915	Desktop Phone	POLYCOM
916	Conferencing Solutions	POLYCOM
917	Baterías	POWER WARE
918	UPS	POWER WARE
919	Antenas	POWER WARE
920	Equipos de Comunicación Wireless	POWER WARE
921	Unidades de Resguardo	QUANTUM
922	Point to Pont Wireless	RADWIN
923	Point to Multi-Point Wireless	RADWIN
924	FiberinMotion Wireless	RADWIN
925	Management Applications	RADWIN
926	Software & Licenses	REDHAT
927	Impresoras Laser	SAMSUNG
928	Monitores	SAMSUNG
929	Toners	SAMSUNG
930	Tablet	SAMSUNG
931	Smart Phones	SAMSUNG
932	Wearable	SAMSUNG
933	Cameras	SAMSUNG
934	Memorias, Mobile Storage	SANDISK
935	Hard Drive	SEAGATE
936	Enclosure	SEAGATE
937	Adapter	SIIG
938	Card Reader	SIIG
939	Speakers	SIIG
940	Firewall	SONICWALL
941	Camaras Digitales	SONY
942	Proyectores	SONY
943	Camaras de Video	SONY
944	Computadoras Portatiles	SONY
945	Tablet	SONY
946	All in One Computer	SONY
947	Accesorios de Computadoras	SONY

948	Analytical Statistics Software	SPSS
949	LCD/LCD TV/ Plasmas TV	SHARP
950	Adapter	STARTECH
951	Card Reader	STARTECH
952	Speakers	STARTECH
953	Docking Station	STARTECH
954	KVM Console	STARTECH
955	Licencias de Programas	SYMANTEC
956	Programas (Software)	SYMANTEC
957	Cases & Bags	TARGUS
958	LaptopCooling	TARGUS
959	Mice/Pointers	TARGUS
960	Keyboards/Keypads	TARGUS
961	Doking Station/ Port Replicator	TARGUS
962	Acesorios de Computadoras	TARGUS
963	Baterías	TOSHIBA
964	CD Roms	TOSHIBA
965	Cd Writers	TOSHIBA
966	Computadoras Portátiles	TOSHIBA
967	DVD's	TOSHIBA
968	DVDRW	TOSHIBA
969	Hard Dives	TOSHIBA
970	Memorias	TOSHIBA
971	Modem	TOSHIBA
972	Monitores	TOSHIBA
973	Accesorios de Computadoras	TOSHIBA
974	Wireless	TRENDNET
975	Fiber Switch	TRENDNET
976	Gigabit Voice over Internet Protocol (VoIP)	TRENDNET
977	Keyboard/Video/Mouse (KVM)	TRENDNET
978	Internet Camera	TRENDNET
979	Network accessories Print servers	TRENDNET
980	Bluetooth	TRENDNET
981	Network adapters	TRENDNET
982	Powerlines	TRENDNET
983	Baterías	TRIPP LITE
984	Gabinetes, Rack	TRIPP LITE
985	Data Center	TRIPP LITE
986	UPS	TRIPP LITE

987	KVM Switch	TRIPP LITE
988	Refrigeracion	TRIPP LITE
989	Distribucion de Energia	TRIPP LITE
990	Software de Administracion	TRIPP LITE
991	Line Conditioner	TRIPP LITE
992	Cart, Storage, Station, Charging Cart	TRIPP LITE
993	LCD Rack Console	TRIPP LITE
994	Software	VEEAN
995	Licencias de Programas	VEEAN
996	Virtual Infrastructure Backup and Replication	VEEAN
997	Blu-ray , DVD, CD	VERBATIM
998	Hard drives, SSD	VERBATIM
999	USB drives	VERBATIM
1000	Memory Cards	VERBATIM
1001	Accessories	VERBATIM
1002	Licencias de Programas	VERITAS
1003	Programas (Software)	VERITAS
1004	Layaout	VERITY
1005	Scan	VERITY
1006	Touch Writer	VERITY
1007	Count	VERITY
1008	Relay	VERITY
1009	Build	VERITY
1010	Computadoras Portátiles	VIEWSONIC
1011	Monitores,Digital Signage,Comercial Display	VIEWSONIC
1012	Accesorios de Computadoras	VIEWSONIC
1013	Tablet	VIEWSONIC
1014	Pantallas Interactivas	VIEWSONIC
1015	Proyectores	VIEWSONIC
1016	All in One Computer	VIEWSONIC
1017	Kiosks	VIEWSONIC
1018	Media Player	VIEWSONIC
1019	Software	VISION SOLUTION
1020	Licencias de Programas	VISION SOLUTION
1021	Virtual Infrastructure Backup and Replication	VISION SOLUTION
1022	Software	VMWARE

1023	Licencias de Programas	VMWARE
1024	Software	WATERFORD
1025	Licencias de Programas	WATERFORD
1026	Internal and External Hard Drive	WESTERN DIGITAL
1027	Enclosure	WESTERN DIGITAL
1028	Licencias de Programas	WRQ
1029	Programas (Software)	WRQ
1030	Monitores	WYSE
1031	Teclados	WYSE
1032	Terminales	WYSE
1033	Impresoras Laser	XEROX
1034	Toner	XEROX
1035	Impresoras Multifuncionales	XEROX
1036	Fotocopiadoras	XEROX

Copia de esta Resolución, que enumera los productos para los cuales se concede el porciento de preferencia, deberá ser entregada a las Agencias de Gobierno cada vez que participe en un proceso de compras. Las Agencias vienen llamadas a adjudicar utilizando dicho parámetro según disposiciones reglamentarias. **Esta Resolución tendrá una vigencia de dieciocho (18) meses, hasta el 4 de octubre de 2019. La petición de renovación del por ciento deberá hacerse no más tarde del 6 de julio de 2019, noventa (90) días previos a la fecha de expiración.**

Esta Resolución deja sin efecto cualquier Resolución emitida previamente concediendo beneficios por el mismo concepto. Se le advierte al peticionario que hacer utilización de resoluciones previas puede resultar en procesos adjudicativos y sanciones. El beneficio del por ciento de parámetro de inversión aquí concedido no se entenderá como un medio para aumentar el precio del producto, sino como uno para enfrentarse a la competencia en los procesos de compras gubernamentales.

Si el recipiente del beneficio aquí concedido no estuviera de acuerdo con el mismo, podrá solicitar reconsideración de la determinación de la Junta de Inversión dentro de quince (15) días calendario siguientes al recibo de esta notificación. La Junta deberá emitir una determinación por escrito sobre la solicitud de reconsideración presentada dentro de los quince (15) días de recibo de la solicitud. La determinación de la Junta será notificada al solicitante. De resultar adversamente afectado, el solicitante podrá recurrir ante el

Tribunal de Primera Instancia, Sala Superior de San Juan, dentro de un término de treinta (30) días a partir de la fecha de la notificación de la Junta.

CERTIFICACIÓN

Yo, Carmen Nadal Ruvira, Secretaria Ejecutiva de la Junta para la Inversión en la Industria Puertorriqueña (JIIP), CERTIFICO que la Junta de Directores de la JIIP aprobó el 4 de abril de 2018, la concesión del parámetro de inversión presentada en esta Resolución.

Por tanto, esta Resolución entra en vigor inmediatamente después de su aprobación.

En San Juan, Puerto Rico, hoy, 4 de abril de 2018.

Carmen L. Nadal Ruvira
Secretaria Ejecutiva

COMPUTERLINK
We Make Technology Work!

TAB 15

W-9 (IRS),

SC2908 (Dept. Hacienda)

FORM 9

W-9 TAXPAYER IDENTIFICATION NUMBER AND CERTIFICATION (IRS)

THIS FORM IS AVAILABLE FOR DOWNLOAD AT

https://www.irs.gov/uac/about-form-w9

SC-2908 CERTIFICATION OF REGISTRATION FILING FOR CORPORATIONS AND COMPANIES (DEPARTAMENTO DE HACIENDA)

THIS FORM IS AVAILABLE FOR DOWNLOAD AT

http://www.pr.gov/Attachments/pdf/024%20hacienda%20forma-sol_correo%20certif_deuda-radic-infor_plan%20sc%202908%20rev_nov04.pdf

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Form **W-9**
(Rev. November 2017)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

▶ Go to *www.irs.gov/FormW9* for instructions and the latest information.

Give Form to the requester. Do not send to the IRS.

Print or type. See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

Computer Network Systems Corp.

2 Business name/disregarded entity name, if different from above

Computerlink

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC ☑ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is **not** disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) _____

Exemption from FATCA reporting code (if any) _____

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

Altagracia Building, 262 Uruguay Street, Suite C-2

Requester's name and address (optional)

6 City, state, and ZIP code

San Juan, PR 00917

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

			–			–				

or

Employer identification number

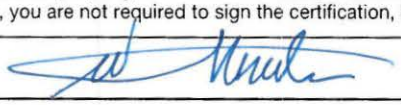
6	6	–	0	4	4	4	1	5	4

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here | **Signature of U.S. person ▶**  **Date ▶** July 3, 2018

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9*.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, *later.*

MODELO
SC 6096A
17 MAY 10

GOBIERNO DE PUERTO RICO
DEPARTAMENTO DE HACIENDA
AREA DE RENTAS INTERNAS

FECHA: 03-07-2018
HORA : 11:12
PAG. 1 DE 1

CERTIFICACION DE DEUDA VIA ELECTRONICA

NUM. CUENTA: 001 XX-XXX4154/000 COMPUTER NETWORK SYSTEM CORP

PO BOX 193724
SAN JUAN PR 00919

*COMPUTOS HASTA: 03-07-2018

CERTIFICO QUE EL CONTRIBUYENTE ARRIBA DESCRITO NO TIENE DEUDAS TASADAS POR CONCEPTO DE CONTRIBUCION SOBRE INGRESOS, PATRONAL Y ARBITRIOS AL DIA DE 03-07-2018 EN NUESTRO SISTEMA PRITAS.

ESTA CERTIFICACION NO INCLUYE DEUDAS PENDIENTES POR TASAR O EN PROCESO DE INVESTIGACION POR EL NEGOCIADO IMPOSITIVO A LA FECHA DE ESTA CERTIFICACION.

A D V E R T E N C I A :

FAVOR DE REVISAR ESTE DOCUMENTO EN DETALLE. DE EXISTIR DEUDA, Y ESTAR DE ACUERDO, PUEDE REALIZAR EL PAGO EN CUALQUIERA DE LAS COLECTURIAS DE RENTAS INTERNAS DEL DEPARTAMENTO DE HACIENDA O COLECTURIA VIRTUAL. DE NO ESTAR DE ACUERDO, DEBERA PRESENTAR SU RECLAMACION EN LOS CENTROS DE SERVICIO AL CONTRIBUYENTE. LA RECLAMACION DEBE DE INCLUIR LA EVIDENCIA DEL PAGO PARA CADA UNO DE LOS PERIODOS CONTRIBUTIVOS RECLAMADOS, COPIAS DE LAS PLANILLAS O CUALQUIER OTRO DOCUMENTO QUE EVIDENCIA QUE LA DEUDA NO PROCEDE.

CODIGO: D1818420465913

SI NECESITA VALIDAR LA INFORMACION CONTENIDA EN ESTE DOCUMENTO, FAVOR DE ACCEDER A HTTP://WWW.PR.GOV

MODELO
SC 6088A
9 DIC 09

GOBIERNO DE PUERTO RICO
DEPARTAMENTO DE HACIENDA
AREA DE RENTAS INTERNAS

FECHA: 03-07-2018
HORA : 11:13
PAG. 1 DE 1

CERTIFICACION DE RADICACION DE PLANILLAS DE
CONTRIBUCION SOBRE INGRESOS
VIA ELECTRONICA

NUM. CUENTA: XX-XXX4154 COMPUTER NETWORK SYSTEM CORP

PO BOX 193724
SAN JUAN PR 00919

PERIODO CONTRIBUTIVO	INFORMACION SEGUN SISTEMA
2016	RINDIO PLANILLA
2015	RINDIO PLANILLA
2014	RINDIO PLANILLA
2013	RINDIO PLANILLA
2012	RINDIO PLANILLA

I N F O R M A C I O N A L C O N T R I B U Y E N T E

DE NO ESTAR DE ACUERDO CON LA INFORMACION CONTENIDA EN ESTA CERTIFICACION DEBERA PRESENTAR SU RECLAMACION CON LA EVIDENCIA DE RADICACION EN CUALQUIERA DE LOS CENTROS DE SERVICIOS AL CONTRIBUYENTE.

DE NO ESTAR OBLIGADO POR LEY A RENDIR UNA PLANILLA (APLICA SOLO A INDIVIDUOS) DEBERA LLENAR EL MODELO SC 2781, CERTIFICACION DE RAZONES POR LAS CUALES EL CONTRIBUYENTE NO ESTA OBLIGADO POR LEY A RENDIR UNA PLANILLA DE CONTRIBUCION SOBRE INGRESOS DE INDIVIDUOS, EN CUALQUIERA DE LOS CENTROS DE SERVICIO AL CONTRIBUYENTE (CENTROS) Y PRESENTAR LA EVIDENCIA SOLICITADA.

PARA LA UBICACION DE LOS CENTROS, PUEDE COMUNICARSE A LOS SIGUIENTES TELEFONOS:

SAN JUAN (787) 723-5556 / 1-877-684-3422
PONCE (787) 844-8800
BAYAMON (787) 778-4949 / (787) 778-4973 / (787) 778-4974
CAGUAS (787) 258-5272 / (787) 745-0666
MAYAGUEZ (787) 265-5200

CODIGO: C1818400465923
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FAVOR DE ACCEDER A HTTP://WWW.PR.GOV

COMPUTERLINK
We Make Technology Work!

TAB 16
Portable Computing Device Specifications

RFP NO: PRDE-OSIATD-FY2018-001
MOBILE DEVICE TECHNOLOGY AND SERVICES FOR NEW GENERALTION SCHOOLS
PUERTO RICO DEPARTMENT OF EDUCATION

FORM 10

PORTABLE COMPUTING DEVICE SPECIFICATIONS

Instructions: Complete this worksheet for each type of technology solution proposed. Fill in each blank with the requested information. You may attach additional pages to provide complete information where required. This RFP does not require that all these fields be accounted for, but if a proposer is providing an option that fits one of these categories, these fields must be completed. Please specify which items are optional, if any. If additional items (fields) need to be added to this list of products and services to best reflect your proposed solution, please make note of this and add any necessary data.

Portable Device Description

Manufacturer	HP
Model	ProBook x360 11 G1 EE
Processor Speed	1.1 GHz up to 2.5 GHz
Chip Manufacturer	Intel
Chip Type	Integrated
Number of Processor Cores	4 Cores
Number of Video Cores	UMA only, 1 core in processor
Amount Random Access Memory	4 GB
Amount of Random Access Memory Dedicated to CPU	3 GB (Depends on configuration)
Operating System	Windows 10
Wireless Type (ex. 802.11 a/b/g/n/ac)	802.11a/b/g/n/ac
Wireless Speed (ex. 150/1000)	2.4 GHz - 5.8 GHz
Hard Drive Type	SSD
Hard Drive Capacity	128GB
Audio Chipset Manufacturer	Conexant
Video Chipset Manufacturer	Intel
Front Camera Resolution (Still/Video)	1MP HD Webcam
Back Camera Resolution (Still/Video)	2MP FHD Webcam
Display Size	11.6"
Display Resolution	HD (1366 x 768)
Number of Touch Points	10 touch points
USB Port Type and Count	(2) USB 3.1 Gen 1 Type-A / (1) USB Type-
Keyboard size	Full Size (27.6cm Diagonal) 10x26 cm
Optional input device	None
Battery Capacity (ex. 7200mAh)	3700mAH. Charge to 90% in 90 mins
Duration (ex. 8 hrs.)	Battery life up to 10.5hrs (for SSD)
Weight	3.19 lbs.

Provide industry benchmark test results, including information about how long the device will operate on a single battery charge under these conditions:	
Activity	**Time**
Web-browsing	Estimated time 8hrs
Multimedia (video/audio)	Estimated time 6hrs
Reading eBooks	Estimated time 7hrs
Stand by time	Estimated time 10 Hrs

FORM 10

PORTABLE COMPUTING DEVICE SPECIFICATIONS

Instructions: Complete this worksheet for each type of technology solution proposed. Fill in each blank with the requested information. You may attach additional pages to provide complete information where required. This RFP does not require that all these fields be accounted for, but if a proposer is providing an option that fits one of these categories, these fields must be completed. Please specify which items are optional, if any. If additional items (fields) need to be added to this list of products and services to best reflect your proposed solution, please make note of this and add any necessary data.

Portable Device Description

Manufacturer	HP
Model	HP x2 210 G2
Processor Speed	1.44GHz up to 1.92 GHz
Chip Manufacturer	Intel
Chip Type	Integrated
Number of Processor Cores	4 Cores
Number of Video Cores	UMA only, 1 core in processor
Amount Random Access Memory	2 GB
Amount of Random Access Memory Dedicated to CPU	512 MB (Depends on configuration)
Operating System	Windows 10
Wireless Type (ex. 802.11 a/b/g/n/ac)	802.11a/b/g/n/ac
Wireless Speed (ex. 150/1000)	2.4 GHz - 5.8 GHz
Hard Drive Type	eMMC
Hard Drive Capacity	32GB
Audio Chipset Manufacturer	Conexant
Video Chipset Manufacturer	Intel
Front Camera Resolution (Still/Video)	1MP HD Webcam
Back Camera Resolution (Still/Video)	5MP FHD Webcam
Display Size	10.6"
Display Resolution	WXGA (1280 x 800)
Number of Touch Points	10 touch points
USB Port Type and Count	(1) USB 3.0 Type-A / (1) USB Type-C
Keyboard size	N/A
Optional input device	None
Battery Capacity (ex. 7200mAh)	4000mAH, Charge to 50% in 30 mins
Duration (ex. 8 hrs.)	Battery life up to 10hrs
Weight	1.30 lbs.

Provide industry benchmark test results, including information about how long the device will operate on a single battery charge under these conditions:	
Activity	**Time**
Web-browsing	Estimated time 8hrs
Multimedia (video/audio)	Estimated time 6hrs
Reading eBooks	Estimated time 7hrs
Stand by time	Estimated time 10hrs

Datasheet

HP ProBook x360 11 G1 EE Notebook PC

Improve learning outcomes, save teacher time, and engage students like never before with the powerful, durable, flexible HP ProBook x360 11 G1 Education Edition. It converts easily from a notebook to a tablet to a stand to a tent and moves seamlessly between the classroom and home.

HP recommends Windows 10 Pro.

Built to survive students and the school day

Make life simple for IT and educators with an easy-to-carry PC that's designed to protect against bumps and pass MIL-STD 810G[1], with Corning® Gorilla® Glass 4, co-molded industrial rubber, and pick- and minor spill-resistant keyboard.

Encourage blended learning

Flip, fold, and learn with a 360° hinge and optional dual cameras[2] that adapt to every activity. Create content in notebook mode, collaborate in stand mode, share and present in tent mode, and read, write, and draw in tablet mode.

Touch or tap

Annotate, draw, solve math problems, and take notes right on your screen with integrated premium touch technology and an optional Active Pen[3] that supports an authentic digital inking experience similar to paper and pen or paintbrush.

- Deploy a device with the Windows 10 Pro[4] operating system that's already second nature to your students and teachers.
- Enable project-based learning with the optional dual-camera system that allows students to see what they're recording in four modes: notebook, tablet, tent, and stand.[2]
- Empower students to quickly and easily work on multiple applications with the latest Intel® processors, which deliver impressive productivity and graphics performance and help extend battery life.
- Take on the school day and homework with up 11 hours of battery life.[5]
- Meet and exceed the global requirements of learners with the HP School Pack 2.5 suite of digital tools and content designed for collaborative, standards-aligned, and personalized learning.
- Help ensure reliable connectivity with Intel® 2x2 AC wireless and an RJ-45 port.
- Connect to devices and displays with two USB 3.1 Gen 1, HDMI, 3.5 mm mic and speaker ports, and USB-C™, which supports cell phone charging and data transfer and the use of USB-C™ flash drives.
- Breathe easy with an IT investment that is supported by a one-year standard limited warranty that's extendable with an optional HP Care service.[5]

HP recommends Windows 10 Pro.

HP ProBook x360 11 G1 EE Notebook PC Specifications Table

Available Operating System	Windows 10 Pro 64 – HP recommends Windows 10 Pro. [1] Windows 10 Home 64 [1] Windows 10 Pro (National Academic License) [22] Windows 10 S
Processor Family	Intel® Celeron® processor; Intel® Pentium® processor
Available Processors	Intel® Celeron® N3350 with Intel® HD Graphics 500 (1.1 GHz base frequency, up to 2.4 GHz burst frequency, 2 MB cache, 2 cores) Intel® Celeron® N3450 with Intel® HD Graphics 500 (1.1 GHz base frequency, up to 2.2 GHz burst frequency, 2 MB cache, 4 cores) Intel® Pentium® N4200 with Intel® HD Graphics 505 (1.1 GHz base frequency, up to 2.5 GHz burst frequency, 2 MB cache, 4 cores) [2 23] In accordance with Microsoft s support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on http://www.support.hp.com
Chipset	Chipset is integrated with processor
Maximum Memory	4 GB DDR3L-1600 SDRAM (Transfer rates up to 1600 MT/s)
Internal Storage	128 GB up to 256 GB M.2 SSD [3 4] 64 GB eMMC SSD [3 5]
Display	11.6" diagonal HD SVA eDP LED anti-glare slim (1366 x 768); 11.6" diagonal HD SVA eDP LED slim touch screen (1366 x 768) [6 11]
Available Graphics	Integrated: Intel® HD Graphics 500; Intel® HD Graphics 505[6]
Wireless Technologies	Intel® Dual Band Wireless-AC 7265 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 4.2 Combo [8]
Communications	Realtek RTL8111HSH Gigabit Ethernet
Expansion Slots	1 microSD [7] (Supports micro SD, SDHC, SDXC)
Ports and Connectors	2 USB 3.1 Gen 1; 1 USB Type-C™ (Data transfer only); 1 HDMI 1.4b; 1 AC power connector; 1 RJ-45; 1 headphone/microphone combo jack [10]
Audio	HD audio; Dual speakers; Dual digital microphones; Headphone/microphone combo jack
Input Device	Full-sized, spill and pick-resistant; Clickpad with multitouch gestures
Camera	User-facing 720p camera; World-facing 1080p secondary camera (select models) [6 9]
Available Software	HP 3D Driveguard (Windows required); HP ePrint Driver + JetAdvantage; HP Hotkey Support; HP Recovery Manager; HP Support Assistant; HP Noise Cancellation; HP Velocity; For a complete list of preinstalled software, please refer to the quick spec document for this product. [12]
Security Management	Absolute persistence module; HP Client Security Gen3; HP Device Access Manager; HP Secure Erase; HP Sure Start Gen3; Smart card reader; TPM 2.0; [13 16 17 18]
Management Features	HP Driver Packs; HP SoftPaq Download Manager (SDM); HP System Software Manager (SSM); HP BIOS Config Utility (BCU); HP Client Catalog; HP Management Integration Kit for Microsoft System Center Configuration Manager; LANDESK Management [14 15]
Power	45 W Smart AC adapter; 65 W EM Smart AC adapter HP Long Life 3-cell, 41 Wh Li-ion Up to 11 hours[20] Battery is internal and not replaceable by customer. Serviceable by warranty.
Dimensions	8.19 x 11.91 x 0.78 in 20.79 x 30.24 x 1.99 cm
Weight	Starting at 2.97 lb (non-touch); Starting at 3.19 lb (touch) Starting at 1.35 kg (non-touch); Starting at 1.45 kg (touch) (Weight varies by configuration and components)
Environmental	Low halogen [21]
Energy Efficiency Compliance	ENERGY STAR® certified configurations available; EPEAT® Gold [24]
Warranty	Limited 3-year and 1-year warranty options available, depending on country. 3-year limited warranty on HP Long Life Battery (only available with 3-year platform warranty). Optional HP Care Pack Services are available to extend your protection beyond the standard warranty. For more details visit: hp.com/go/cpc.[19]

HP recommends Windows 10 Pro.

HP ProBook x360 11 G1 EE Notebook PC

Accessories and services (not included)

HP 45W Smart AC Adapter

Be productive throughout the day and keep an extra adapter on hand with the lightweight and versatile HP 45W Smart AC Adapter.
Product number: H6Y88AA

HP Keyed Cable Lock 10 mm

Help keep your notebook safe in the office and high-traffic areas by tethering it to a secure surface with the HP Master Keyed Cable Lock 10mm, designed specifically for ultra-thin profile notebooks.
Product number: T1A62AA

HP Stereo USB Headset

Quickly and easily collaborate, chat online or listen to personal media with the crystal-clear sound and noise cancelling features of the sleek, lightweight HP Stereo USB Headset, designed to complement your professional workspace.[1,2]
Product number: T1A67AA

HP Slim USB Keyboard and Mouse

Work smart and maximize your workspace with the stylish HP Slim USB Keyboard and Mouse, designed to complement the 2015 class of HP Business PCs.
Product number: T6T83AA

HP 3005pr USB3 Port Replicator

Get online and get to work, fast, with the HP 3005pr USB3 Universal Port Replicator, which delivers device, display, and network connectivity to your Windows® or Chromebook™ notebook with one USB 3.0 cable connection—no reboot required!
Product number: Y4H06AA

HP 3 year Next Business Day Onsite with Accidental Damage Protection

Care Pack

When hardware issues come up, the sooner you can get running again, the better. Have expertise at the ready with HP Hardware Next Business Day Onsite Service with Accidental Damage Protection, and vastly improve your product uptime. With high-quality remote assistance or convenient onsite support available the next business day, help is there when you need it—so you can get back to work.
Product number: UK726E

HP recommends Windows 10 Pro.

Messaging Footnotes

[1] MIL-STD testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Damage under the MIL-STD test conditions or any accidental damage requires an optional HP Accidental Damage Protection Care Pack.
[2] Requires optional rear-facing camera on select configurations only. Front-facing camera is standard on all models.
[3] Sold separately or as an add-on feature.
[4] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.
[5] Sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.
[6] Windows 10/MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See www.bapco.com for additional details.

Technical Specifications Footnotes

[1] Not all features are available in all editions or versions of Windows of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com/.
[2] Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering is not a measurement of higher performance.
[3] For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10) is reserved for system recovery software.
[4] Not available with eMMC storage.
[5] No HPRM.
[6] HD content required to view HD images.
[7] All cables are sold separately.
[8] Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.
[9] Internet access required.
[10] HDMI cable sold separately.
[11] Resolutions are dependent upon monitor capability, and resolution and color depth settings.
[12] HP ePrint Driver requires an Internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see www.hp.com/go/eprintcenter).
[13] HP BIOSphere available only on business PCs with HP BIOS.
[14] HP SoftPaq Download Manager (SDM); HP System Software Manager (SSM); HP Microsoft Integration Kit for Microsoft Systen Center Configuaton Manager: Not preinstalled, however available for download at http://www.hp.com/go/clientmanagement.
[15] LANDESK Management subscription required.
[16] Lock sold separately.
[17] Absolute agent is shipped turned off, and will be activated when customers activate a purchased subscription. Subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. The Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit: http://www.absolute.com/company/legal/agreements/computrace-agreement. Data Delete is an optional service provided by Absolute Software. If utilized, the Recovery Guarantee is null and void. In order to use the Data Delete service, customers must first sign a Pre-Authorization Agreement and either obtain a PIN or purchase one or more RSA SecurID tokens from Absolute Software.
[18] Sure Start Gen3 requires a 7th Generation Intel® Processor.
[19] HP Care Packs are sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.
[20] Windows 10 MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See www.bapco.com for additional details.
[21] External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
[22] Some devices for academic use will automatically be updated to Windows 10 Pro Education with the Windows 10 Anniversary Update. Features vary, see https://aka.ms/ProEducation for Windows 10 Pro Education feature information.
[23] NOTE: In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on http://www.support.hp.com.
[24] EPEAT ® registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country. See HP's 3rd party option store for solar energy accessory www.hp.com/go/options.

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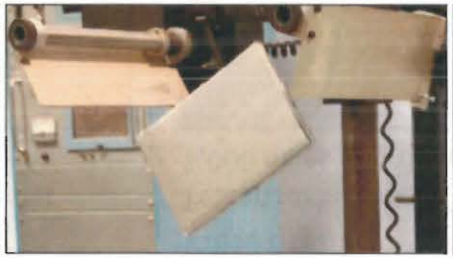
4AA6-8727ENUC, April 18th 2018

HP Business PC MIL-STD-810G testing *

Sand and dust resistance

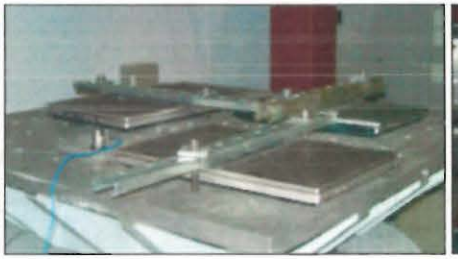
Simulates notebook subjected to Arizona road dust for 6 hours while operating.

Drop test



Tests notebook safe operation after dropping 30 inches-26 times on each side & edge.

Vibration test



Simulates 1000 miles of US highway truck vibration.

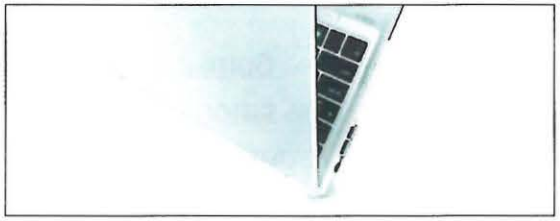
Thermal shock

High-to-low temperature tests - from 96°C (205°F) to -51°C (-60°F) three times & then powered on.

* MIL-STD-810G testing was not intended to demonstrate fitness for U.S. Department of Defense contracts or for military use. Test results are not a guarantee of future performance under these test conditions. Select HP models tested. Tests conducted for each model may vary.

Tested reliability

Elite PCs pass up to 12 U.S. MIL-STD 810G reliability tests [8] and receive 115,000 test hours



Drops

26 times – each side, edge and corner – for business-rugged design. [8]

Vibration

Tested for vibration resistance simulating 1,000 miles of ground transport. [8]

Dust

Dust is blasted at HP EliteBooks for six straight hours. [8]

Temperature

Passed testing for repeated, extreme temperature changes. [8]

Mechanical shock

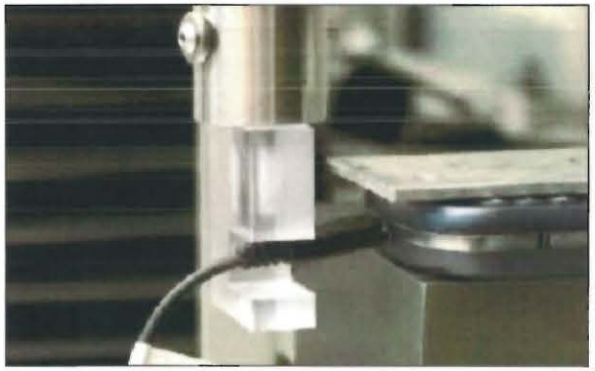
Subject to three shocks per axis and direction for a total of 18 shocks. [8]

Altitude

Tested in simulated pressures equal to altitudes of 15,000 feet (4,572m). [8]

HP Business PC Total Test Process *

Connector fatigue



Simulates extended stress applied to connectors over time to ensure lifetime I/O reliability

Flexural resistance

Simulates lifting notebooks by the base enclosure in various locations to design for minimal flex.

System acoustics

Simulates various operational modes & measures the acoustic levels to reduce product noise.

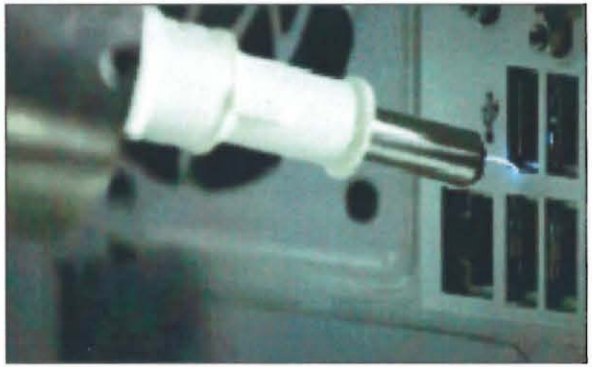
* Test results are not a guarantee of future performance under these test conditions

HP Business PC Total Test Process *

Coffee spill / drain test

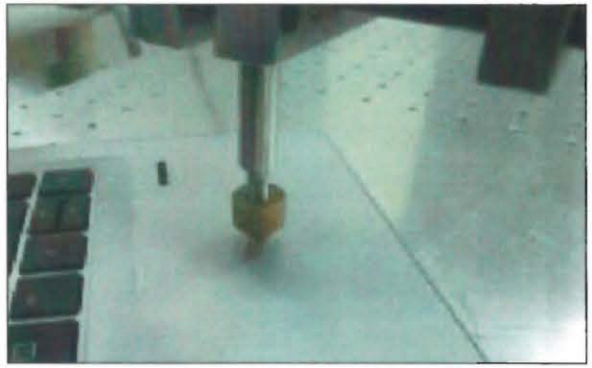
Simulated coffee spill directly on the PC - tests spill-resistant keyboard & drain system.

Electrostatic discharge testing



Simulates office static-electric discharge to ensure static electricity won't damage business-critical information.

Enclosure force test



Simulates pressure applied on the enclosure at various locations to test structural integrity during usage, handling & transport.

* Test results are not a guarantee of future performance under these test conditions

HP Business PC Total Test Process *

Display latch test

Simulates extended use of latches to test strength & reliability.

Operational vibration

Simulates vibrational stresses experienced in long-term field use to increase durability.

Package vibration

Simulates stresses experienced in normal shipping & handling to ensure reliability.

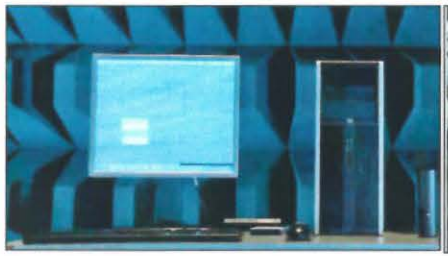
Hinge cycling test

Simulates repeated notebook opening & closing to test hinge strength & reliability.

* Test results are not a guarantee of future performance under these test conditions

HP Business PC Total Test Process *

Electromagnetic interference test



Test for electromagnetic interference to ensure desktop PCs won't affect other devices.

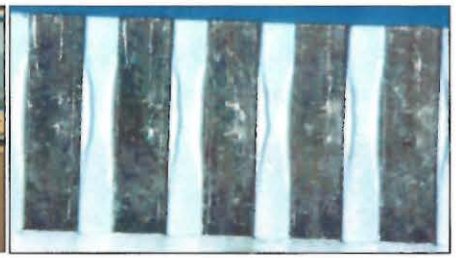
Keyboard system test

Simulated lifetime notebook keyboard use to ensure strength & reliability.

Mechanical shock test

Simulates sudden shock to test PC against stresses of shipping, setup, & accidents.

Post-test evaluation



Critical components are inspected after tests for signs of unusual wear, degradation or corrosion.

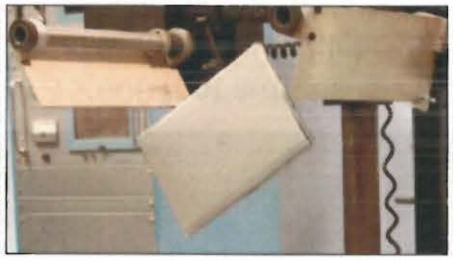
* Test results are not a guarantee of future performance under these test conditions

HP Business PC MIL-STD-810G testing *

Sand and dust resistance

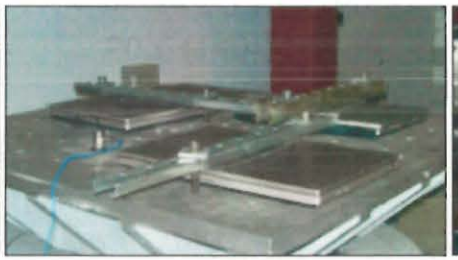
Simulates notebook subjected to Arizona road dust for 6 hours while operating.

Drop test



Tests notebook safe operation after dropping 30 inches-26 times on each side & edge.

Vibration test



Simulates 1000 miles of US highway truck vibration.

Thermal shock

High-to-low temperature tests - from 96°C (205°F) to -51°C (-60°F) three times & then powered on.

* MIL-STD-810G testing was not intended to demonstrate fitness for U.S. Department of Defense contracts or for military use. Test results are not a guarantee of future performance under these test conditions. Select HP models tested. Tests conducted for each model may vary.

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HP Business PC MIL-STD-810G testing *

Humidity

Ten 24-hour cycles with temperature changes between 30°C (86°F) & 60°C (140°F); & constant 95% relative humidity. [7, 8]

Altitude

15,000 foot altitude-level simulation - the highest equivalent altitude for cargo pressures in military aircraft.

High / low temperature

Notebook tested up to 60°C (140°F) while running & 71°C (160°F) turned off.

Physical shock

Notebook tested in six different directions for a total of 18 mechanical shocks.

* MIL-STD-810G testing was not intended to demonstrate fitness for U.S. Department of Defense contracts or for military use. Test results are not a guarantee of future performance under these test conditions. Select HP models tested. Tests conducted for each model may vary.

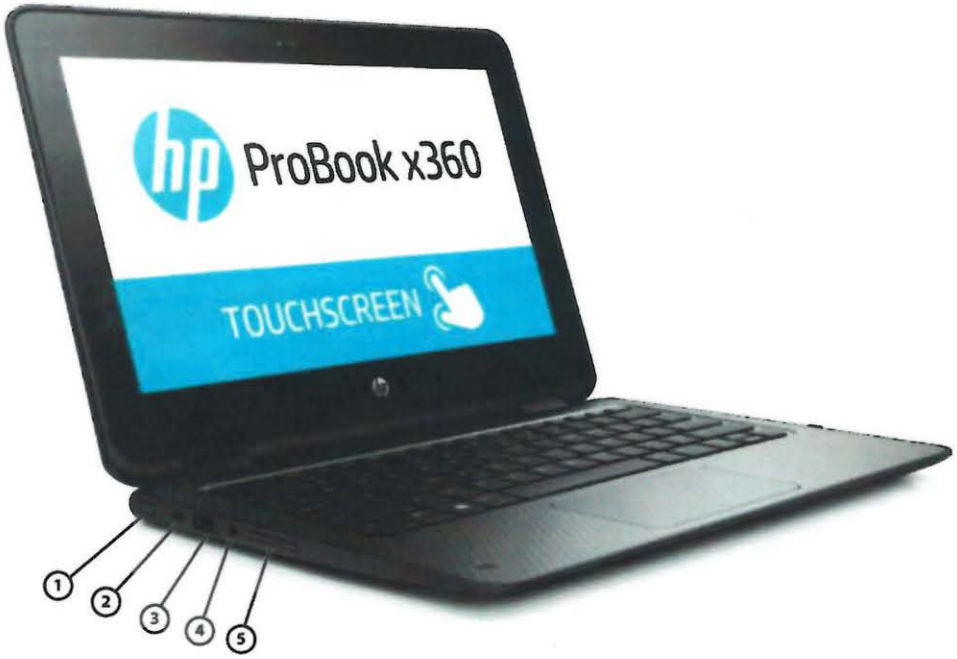
Overview

HP ProBook x360 11 G1 EE Notebook PC

Front Right

1. WLAN antennas (2)
2. Internal microphones (2)
3. User-facing webcam LED
4. User-facing 720p webcam
5. Power connector
6. Ethernet (RJ-45) port
7. HDMI v1.4b
8. USB 3.1 Gen 1 port
9. USB Type-C™ (Data only)
10. Micro SD card reader
11. ClickPad
12. World-facing 1080p webcam (select models only)
13. World-facing webcam LED (select models only)

Overview



Front Left

1. Power button
2. Security lock slot
3. USB 3.1 Gen 1 Port
4. Headphone / Microphone Combo Jack
5. Volume button

Overview

Stand Mode

Tablet Mode

Tent Mode

Overview

AT A GLANCE

- Starting at 2.98 lbs (1.35 kg) non-touch and 3.19 lbs (1.45 kg) touch
- Less than 20 mm (0.79"), this flexible 360° hinge converts to laptop, tablet, tent, or stand mode easily
- Designed to pass MIL-STD 810G testing[1] with rugged features such as co-molded rubber trim, spill- and pick-resistant keyboard, and Corning® Gorilla® Glass 4 touch screen
- Optional dual camera system for project-based learning
- Optional HP Active Pen provides an authentic digital inking experience
- Pre-installed with Windows 10 Pro 64, Windows 10 Pro 64 (National Academic), Windows 10 Home 64, or Windows 10 S
- Powered by Intel® Celeron® N3350, Intel® Celeron® N3450 and Intel® Pentium® N4200 processors
- Choice of 29.4 cm (11.6") diagonal HD SVA anti-glare slim LED non-touch (1366 x 768) or 29.4 cm (11.6") diagonal HD SVA slim LED touch screen (1366 x 768) displays
- 64 GB eMMC or up to 256GB SATA-3 Solid State Drive storage options
- Up to 8 GB system memory for enhanced memory management
- Reliable connectivity with Intel® Dual Band Wireless-AC 7265 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 4.2 Combo WLAN for learning and collaboration beyond the classroom
- Built-in ports include: Ethernet (RJ-45), USB 3.1 Gen 1, USB Type-C™, and HDMI 1.4b port for connecting to high-resolution displays
- Enhanced security TPM 2.0 discrete chip
- Battery life up to 11 hours

1. MIL STD 810G testing is pending and is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Damage under the MIL STD test conditions or any accidental damage requires an optional HP Accidental Damage Protection Care Pack.

NOTE: See important legal disclosures for all listed specs in their respective features sections.

Technical Specifications

PRODUCT NAME

HP ProBook x360 11 G1 EE Notebook PC

OPERATING SYSTEM

Preinstalled	Windows 10 Pro 64[1] Windows 10 Home 64[1] Windows 10 Pro (National Academic License)[2] Windows 10 S[3]
Web supported	Windows 10 Enterprise 64[1]

NOTE: Your product does not support Windows 8 or Windows 7
In accordance with Microsoft's support policy, HP does not support the Windows® 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows® 8 or Windows 7 drivers on http://www.support.hp.com.

1. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.
2. Some devices for academic use will automatically be updated to Windows 10 Pro Education with the Windows 10 Anniversary Update. Features vary; see https://aka.ms/ProEducation for Windows 10 Pro Education feature information
3. Windows 10 S is available in North America, UK and Australia and requires one of the following configurations: Intel® Celeron® N3340 (DC), 2GB memory, 64GB eMMC; Intel® Celeron® N3350 (DC), 4GM memory, 64GB eMMC; or Intel® Celeron® N3450 (QC), 4GB memory, 64GB eMMC. Supports Windows Store apps only.

PROCESSORS

Intel® Celeron® N3350 with Intel® HD Graphics 500 (1.1 GHz, up to 2.4 GHz,2 MB cache, 2 cores)[1,2]
Intel® Pentium® N4200 with Intel® HD Graphics 505 (1.1 GHz, up to 2.5 GHz, 2 MB cache, 4 cores)[1,2]
Intel® Celeron® N3450 with Intel® HD Graphics 500 (1.1 GHz, up to 2.2 GHz, 2 MB cache, 4 cores)[1]

Processors Family
7th Generation Intel® Celeron® processor (N3350 model)
7th Generation Intel® Pentium® processor (N4200 model)

Note: In accordance with Microsoft's support policy, HP does not support the Windows® 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows® 8 or Windows 7 drivers on http://www.support.hp.com.

Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

Technical Specifications

1. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering is not a measurement of higher performance.

2. In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel® and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on http://www.support.hp.com

CHIPSET

Chipset is integrated with processor

GRAPHICS

Integrated
Intel® HD[1] Graphics 500
Intel® HD[1] Graphics 505

1. HD content required to view HD images.
NOTE: View processor section for details.

DISPLAY

Internal
29.4 cm (11.6") diagonal HD SVA anti-glare slim LED non-touch with user-facing camera (1366 x 768)[1]
29.4 cm (11.6") diagonal HD SVA slim LED touch screen with user-facing camera (1366 x 768) [1]

External
Up to 32-bit per pixel color depth

HDMI[2]
HDMI v1.4b supporting: up to 3840 x 2160 @ 30 Hz

1. HD content required to view HD images.
2. HDMI cable sold separately.

NOTE: Resolutions are dependent upon monitor capability, and resolution and color depth settings.

STORAGE AND DRIVES

Primary Storage[1]
M.2 (NGFF) 2280 Solid State Drive
128 GB SATA-3 Value Solid State Drive [2]
128 GB SATA-3 SS TLC Solid State Drive[2]
256 GB SATA-3 Value Solid State Drive[2]

Technical Specifications

256 GB SATA-3 SS TLC Solid State Drive[2]

eMMC Configurations
64 GB[3]

1. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10) is reserved for system recovery software.
2. Not available with eMMC storage.
3. No HPRM.

MEMORY

Standard
DDR3L-1600 (Transfer rates up to 1600 MT/s)
Supports up to 8 GB max on-board (Not Customer Accessible)

Configurations
2 GB (256 MB x 16 x 4 pcs)
4 GB (256 MB x 16 x 8 pcs)
8 GB (256 MB x 16 x 2 x 8 pcs)

Maximum Memory
8 GB

NETWORKING/COMMUNICATIONS

Wireless[1]
Intel® Dual Band Wireless-AC 7265 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 4.2 Combo

Communications
Realtek RTL8111HSH Controller 10/100/1000 Ethernet

1. Wireless access point and Internet service is required and is not included.
   Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.

AUDIO/MULTIMEDIA

Audio
HP Audio
Two integrated stereo speaker
Headphone / microphone in combo jack

Technical Specifications

Webcam[1]
User Facing Camera
1 MP HD Webcam @ 1280 x 720p[2]
Located on display
Dual digital mic

NOTE: Both webcams are fix focus.

World Facing Camera
2 MP FHD Webcam @ 1920 x1080p[2]
Located on keyboard deck (option only available with touch display configurations)

1. Internet access required.
2. HD content required to view HD images.

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS/PEN

Keyboard
Full-sized keyboard
Pick-resistant
Spill-resistant

Function Keys
F1 - Blank
F2 - ClickPad Enable/Disable
F3 - Sleep
F4 - Display Switching
F5 - Audio Mute/Unmute
F6 - Volume Down
F7 - Volume Up
F8 - Mic Mute/Unmute
F9 - Brightness Down
F10 - Brightness Up
F11 - Blank
F12 - Wireless On/Off

ClickPad
Multitouch gestures enabled
Default on: 2-finger scroll, pinch
Support Windows 10 modern Trackpad gestures
Taps enabled as default

Pen
Optional HP Active Pen[1]

1.Sold separately or as an optional feature.

SOFTWARE AND SECURITY

BIOS

Secure Erase[1]

Technical Specifications

HP System Diagnostic (UEFI)

Communication / Connectivity

Native Miracast Support[3]
HP LAN-WLAN Protection
HP Wireless Wakeup

HP Value Add Software

HP ePrint Driver + JetAdvantage[4,8]
HP Hotkey Support – CMIT[8]
HP Jumpstart[8]
HP Support Assistant[8]
HP Noise Cancellation Software

Microsoft Products

Buy Office[8]
Bing Search
Skype[5]

Manageability

HP SoftPaq Download Manager (SDM)[8]
HP System Software Manager (SSM)[6]
LANDESK Management[7]

For more information on HP Client Management Solutions refer to: http://www.hp.com/go/clientmanagement.

HP School Pack

- HP Adaptive Learning created by Fishtree[8]
- HP Simple Sign-on created by Classlink[8]
- HP Classroom Manager Student Edition[2,8]
- SparkVue[8]
- Codecademy[8]
- Corinth Classroom[8]
- HP Prime Graphing Calculator[8]
- Curriculum Matrix/CMX[8]
- Oxford University Press Advanced Learners English Dictionary[8]

Security

Lock slot (Lock sold separately)
Trusted Platform Module (TPM) 2.0

1. For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88.
2. HP Classroom Manager for Teachers is required and sold separately for control and device locking from the teacher's Windows desktop console; no locking and control functionality originates from HP Classroom Manager for Student. Control and device locking originate from the teacher's Windows desktop console.

Technical Specifications

3. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming media players that also support Miracast. You can use Miracast to share what you're doing on your PC and present a slide show. For more information: http://windows.microsoft.com/en-us/windows-8/project-wireless-screen-miracast
4. Requires an Internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see www.hp.com/go/eprintcenter).
5. Skype is not offered in China.
6. Not preinstalled, however available for download at http://www.hp.com/go/clientmanagement
7. Subscription required.
8. This application will not be initially available with Windows 10 S. All applications through the Windows Store will be compatible.

POWER

Power Supply[1]

HP 45W Smart AC adapter
HP 65W EM Smart AC adapter

Primary Battery

HP Long Life 3-cell, 41 Wh Prismatic battery

Power Cord

Power cord is 3.2 feet (1 meter)

Battery life[2]

Hardware details	UMA Graphics	Discrete Graphics
eMMC	Up to 11 hours	N/A
SSD	Up to 10 hours 30 mins	N/A

NOTE: Battery is internal and not replaceable by customer.

System Standby Time[3]

TBD

1. Availability may vary by country.
2. Windows 10 MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See www.bapco.com for additional details.
3. Talk, standby, and usage times are approximate and depend on the network configuration, the usage pattern of an individual user, and the configuration of the handheld. Use of some internal wireless capabilities, backlight will significantly decrease battery run time

Technical Specifications

WEIGHTS & DIMENSIONS

Weight
Non-Touch
Starting at 2.98 lbs (1.35 kg)

Touch
Starting at 3.19 lbs (1.45 kg)

Dimensions (w x d x h)
20.7 x 30.24 x 1.99 cm
8.14 x 11.88 x .78 in

NOTE: Weight varies by configuration and components.

PORTS/SLOTS

Ports
2 USB 3.1 Gen 1 Port
1 USB Type-C™ (Data transfer only)
1 HDMI 1.4b
1 AC power connector
1 RJ-45
1 headphone/microphone combo jack

HP Multi-Format Digital Media Reader
Support micro SD/SDHC/SDXC up to UHS-104

NOTE: All cables are sold separately.

SERVICE AND SUPPORT

HP Services offers a 1-year limited warranties and 90 day software support options depending on country. Batteries have a default one year limited warranty. On-site service and extended coverage is also available. HP Care Pack Services [1],[2] are optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/cpc.

1. Sold separately or as an optional feature.
2. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/cpc.

Technical Specifications

SYSTEM UNIT

Temperature	Operating	41° to 95° F (5° to 35° C)
	Non-operating	-4° to 140° F (-20° to 60° C)
Relative Humidity	Operating	10% to 90%, non-condensing
	Non-operating	5% to 95%, non-condensing

DISPLAYS

Note: All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

29.4 cm (11.6") diagonal HD SVA anti-glare slim LED non-touch (1366 x 768)	**Outline Dimensions**	278.5 x 168.5 (mm) max	
	Active Area	256.13 x 144.0 (mm)	
	Weight	210 g max	
	Diagonal Size	11.6 (inch)	
	Contrast Ratio	300:1 (typical)	
	Refresh Rate	60 Hz	
	Brightness	220 nits	
	Pixel Resolution	**Format**	1366 x 768 (HD)
		Configuration	RGB
	Interface	eDP 1.2	
	PPI	135 ppi	
	Backlight	LED	
	Color Gamut Coverage	45%	
	Color depth	6 bit	
	Viewing Angle	SVA 45/45/25/35	

Technical Specifications

29.4 cm (11.6") diagonal HD SVA slim LED touch screen (1366 x 768)	**Outline Dimensions**	278.5 x 168.5 (mm) max	
	Active Area	256.13 x 144.0 (mm)	
	Weight	360 g max	
	Diagonal Size	11.6 (inch)	
	Contrast Ratio	300:1 (typical)	
	Refresh Rate	60 Hz	
	Brightness	220 nits	
	Pixel Resolution	**Format**	1366 x 768 (HD)
		Configuration	RGB
	Interface	eDP 1.2	
	PPI	135 ppi	
	Backlight	LED	
	Color Gamut Coverage	45%	
	Color depth	6 bit	
	Viewing Angle	SVA 45/45/25/35	
	Touch Point Supported	10-point multi-touch	
	Pen Enabled	Yes	

STORAGE AND DRIVES

128 GB SATA-3 Solid State Drive	**Drive Weight**	10 grams
	Capacity	128 GB
	Height	0.091 in (2.3 mm)

Technical Specifications

	Width	0.87 in (22 mm)	
	Interface	ATA-8, SATA 3.0	
	Performance	**Sequential Read**	**Sequential Write**
		Between 520 MB/s and 535 MB/s	Between 185 MB/s and 515 MB/s
	Logical Blocks	250,069,680	
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]	
	Features	ATA Security; ATA-8; SATA 3.0; DIPM; TRIM; DVESLP	
128 GB SATA-3 Solid State Drive TLC	**Drive Weight**	10 grams	
	Capacity	128 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	ATA-8, SATA 3.0	
	Performance	**Sequential Read**	
		Between 520 MB/s and 530 MB/s	
	Logical Blocks	250,069,680	
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]	
	Features	ATA Security; ATA-8; SATA 3.0; DIPM; TRIM; DVESLP	
256 GB SATA-3 Solid State Drive	**Drive Weight**	10 grams	
	Capacity	256 GB	
	Height	0.091 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	500118192	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**

Technical Specifications

		Up to 535 MB/s	Up to 515 MB/s
	Logical Blocks	250,069,680	
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]	
	Features	ATA Security; ATA-8; SATA 3.0; DIPM; TRIM; DVESLP	
64 GB embedded Multi Media Card	**Drive Weight**	Up to 2g	
	Capacity	64 GB	
	Height	1.4mm	
	Package Size	12x16 mm	
	Interface	MMC protocol v4.51	
	Performance	Sequential Read : 100MB/s (min.)	
		Sequential Write: 40MB/s (min.)	
	Features	Embedded Multi Media Card v4.51 compliant, TRIM, Secure Erase, CMD5 support, Partition management, Enhanced Write Protection, HS200 support	

NETWORKING/COMMUNICATIONS

Intel® Dual Band Wireless-AC 7265 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 4.2 Combo

Wireless LAN Standards	IEEE 802.11a
	IEEE 802.11b IEEE 802.11g
	IEEE 802.11n
	IEEE 802.11ac

Technical Specifications

Interoperability	Wi-Fi certified
Frequency Band	802.11b/g/n • 2.402 – 2.482 GHz Note: The FCC has declared as of January 1, 2015 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels. 802.11a/n • 4.9 – 4.95 GHz (Japan) • 5.15 – 5.25 GHz • 5.25 – 5.35 GHz • 5.47 – 5.725 GHz • 5.825 – 5.850 GHz Note: Indonesia no support this band)
Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz) • 802.11ac : MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, and 80MHz)
Modulation	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM
Security[1]	• IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • IEEE 802.11i • Cisco Certified Extensions, all versions through CCX4 and CCX Lite • WAPI
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power[2]	• 802.11b : +16dBm minimum • 802.11g : +14dBm minimum • 802.11a : +14dBm minimum

Technical Specifications

- 802.11n HT20(2.4GHz) : +14dBm minimum
- 802.11n HT40(2.4GHz) : +12dBm minimum
- 802.11n HT20(5GHz) : +14dBm minimum
- 802.11n HT40(5GHz) : +12dBm minimum

Power Consumption	Transmit: 2.0 W (max) Receive: 1.6 W (max) Idle mode (PSP): 180 mW (WLAN Associated) Idle mode: 50 mW (WLAN unassociated) Connect Standby: 10 mW (WLAN+BT) Radio disabled: 5 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity[3]	802.11b, 1Mbps : -94dBm maximum 802.11b, 11Mbps : -86dBm maximum 802.11g, 6Mbps : -88dBm maximum 802.11g, 54Mbps : -74dBm maximum 802.11a, 6Mbps : -88dBm maximum 802.11a, 54Mbps : -74dBm maximum 802.11n, MCS07 : -69dBm maximum 802.11n, MCS15 : -66dBm maximum 802.11ac, 1SS, MCS-0 : -86dBm maximum 802.11ac, 1SS, MCS-9 : -61dBm maximum 802.11ac, 2SS, MCS-0 : -83dBm maximum 802.11ac, 2SS, MCS-9 : -58dBm maximum
Antenna type	High efficiency antenna with spatial diversity, mounted in the display enclosure Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	Type 2230 : 2.3 x 22.0 x 30.0 mm

Technical Specifications

	Or Type 1630 : 2.3 x 16.0 x 30.0 mm	
Weight	Type 2230 : 2.8g	
	Or	
	Type 1630 : 2g	
Operating Voltage	3.3v +/- 9%	
Temperature	Operating Non-operating	14° to 158° F (–10° to 70° C) –40° to 176° F (–40° to 80° C)
Humidity	Operating Non-operating	10% to 90% (non-condensing) 5% to 95% (non-condensing)
Altitude	Operating Non-operating	0 to 10,000 ft (3,048 m) 0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED White – Radio ON	

1. Check latest software/driver release for updates on supported security features.
2. Maximum output power may vary by country according to local regulations.
3. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

HP Integrated Module with Bluetooth 4.0/4.1/4.2 Wireless Technology

Bluetooth Specification	4.0/4.1/4.2 Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.

Technical Specifications

Receiver Sensitivity

Modulation	0.01% BER	0.001% BER
GFSK	-80 dBm	-70 dBm
π/4-DQPSK	-80 dBm	-70 dBm
8DPSK	-80 dBm	-70 dBm

Legacy

Power Consumption

Peak (Tx) 330 mW
Peak (Rx) 230 mW
Selective Suspend 17 mW

Range

Legacy Up to 33 ft (10 m)

BLE Up to 99 ft (30 m)

Electrical Interface

USB 2.0 compliant

Bluetooth Software Supported

Microsoft Windows Bluetooth Software

Link Topology

Electrical Interface

Point to Point, Multipoint Pico Nets up to 7 slaves

Bluetooth Software Supported

Full support of Bluetooth Security Provisions

Security

Power Management

Microsoft Windows ACPI, and USB Bus Support

Certifications

Self-configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff

Security

All necessary regulatory approvals for supported countries, including:

Certifications

FCC (47 CFR) Part 15C, Section 15.247 & 15.249

Bluetooth Profiles Supported

Power Management

ETS 300 328, ETS 300 826

Certifications

Low Voltage Directive IEC950

Certifications

UL, CSA, and CE Mark

Bluetooth Profiles Supported

Serial Port Profile (SPP)[1.2]
Service Discovery Application Profile (SDAP)
Dial-Up Networking (DUN)[1.1]
Generic Object Exchange Profile (GOEP)[1.2]
Object Push Profile (OPP)[1.2]

	Hard Copy Cable Replacement (HCRP)[1,2] Personal Area Networking Profile (PAN)[1.0] Human Interface Device Profile (HID)[1.0] Hands Free Profile (HFP)[1.5/1.6] Advanced Audio Distribution Profile (A2DP)[1.3] Audio Video Remote Control Profile (AVRCP)[1.3/1.4]
Bluetooth V4.1/V4.2 support feature	V4.1: ESR5/6/7 compliant V4.2: ESR8 compliant, LE Secure Connection – Basic.

AUDIO/MULTIMEDIA

Hardware	**Implementation**
	Function Key Volume Controls
	Full Duplex
	Microphone In
	Headphone/Line Out
	Integrated Microphone
Audio Output Quality	**Frequency Response**
	Signal to Noise Ratio
	Total Harmonic Distortion
	Noise Floor
	Play/Record Sampling Rate(s)
	DAC
	ADC
	Power Rating

Technical Specifications

Integrated Stereo Speakers	**Impedance**

POWER

HP 45 Watt Smart AC adapter	**Dimensions** (H x W x D)	95x40x26.5mm	
	Weight	200g +/- 10g	
	Input		
		Input Efficiency	87.74 % at 115 Vac and 88.4 % at 230Vac
		Input frequency range	47 ~ 63 Hz
		Input AC current	Max. 1.4 A at 90 Vac
	Output	Output power	45W
		DC output	19.5V
		Hold-up time	5ms at 115 Vac input
		Output current protection	<8.0A
	Connector	C6 (3pin/with grounded, with Smart ID DC connector)	
	Environmental Design	**Operating temperature**	32oF to 95oF (0oto 35oC)
		Non-operating (storage) temperature	-4oF to 185oF (-20oto 85oC)
		Altitude	0 to 16,400 ft (0 to 5000m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	EMI and Safety Certifications	*CE Mark - full compliance with LVD and EMC directives	
		* Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE.	
		* MTBF - over 200,000 hours at 25°C ambient condition.	

Technical Specifications

HP 65W EM Smart AC Adapter	**Dimensions** (H x W x D)	127.0x51.0x30.0mm	
	Weight	350g +/- 10g	
	Input		
		Input Efficiency	88.0 % at 115 Vac and 89.0 % at 230Vac
		Input frequency range	47 ~ 63 Hz
		Input AC current	Max. 1.7 A at 90 Vac
	Output	Output power	65W
		DC output	19.5V
		Hold-up time	5ms at 115 Vac input
		Output current protection	<11.0A
	Connector	C6 (3pin/with grounded, with Smart ID DC connector)	
	Environmental Design	**Operating temperature**	32oF to 95oF (0oto 35oC)
		Non-operating (storage) temperature	-4oF to 185oF (-20oto 85oC)
		Altitude	0 to 16,400 ft (0 to 5000m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	EMI and Safety Certifications	*CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.	
HP 3-cell Li-ion Prismatic Battery (41 WHr)	**Cells/Type**	3-cell Polymer	
	Watt-hour capacity	41WHr	

Technical Specifications

Temperature	**Operating (Charging)**	32° to 113° F (0° to 45° C)
	Operating (Discharging)	14° to 140° F (-10° to 60° C)
	Non-operating	-4° to 140° F (-20° to 60° C)
Warranty	Batteries have a default one year limited warranty except for Long Life batteries which will have same 1-year or 3-year limited warranty as the platform	

ENVIRONMENTAL

Eco-Label Certifications & declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • IT ECO declaration • US ENERGY STAR® • EPEAT <Gold> registered in the United States. See http://www.epeat.net for registration status in your country.		
System Configuration **Energy Consumption (in accordance with US ENERGY STAR® test method)**	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a "Typically Configured Notebook". **115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	4.65 W	4.87 W	4.61 W
Normal Operation (Long idle)	3.06 W	3.15 W	2.96 W
Sleep	0.38 W	0.46 W	0.38 W
Off	0.27 W	0.36 W	0.27 W

Technical Specifications

	Note: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	16 BTU/hr	17 BTU/hr	16 BTU/hr
Normal Operation (Long idle)	10 BTU/hr	11 BTU/hr	10 BTU/hr
Sleep	1 BTU/hr	2 BTU/hr	1 BTU/hr
Off	1 BTU/hr	1 BTU/hr	1 BTU/hr

*NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)
Typically Configured – Idle	2.6	15
Fixed Disk – Random writes	2.6	15

Batteries	This battery(s) in this product comply with EU Directive 2006/66/EC Batteries used in the product do not contain: Mercury greater the1ppm by weight Cadmium greater than 20ppm by weight Battery size: CR2032 (coin cell) Battery type: Lithium

Technical Specifications

<table>
<tr><td>Additional Information</td><td colspan="3">

This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.
This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
This product is in compliance with the IEEE 1680 (EPEAT) standard at the <Gold> level, see www.epeat.net
Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.
This product contains 0% post-consumer recycled plastic (by wt.)
This product is 96.8% recycle-able when properly disposed of at end of life.

</td></tr>
<tr><td rowspan="5">Packaging Materials</td><td>External:</td><td>PAPER/Corrugated</td><td>318 g</td></tr>
<tr><td>Internal:</td><td>PLASTIC/Polyethylene Expanded - EPE</td><td>25 g</td></tr>
<tr><td></td><td>PLASTIC/Polyethylene low density - LDPE</td><td>15 g</td></tr>
<tr><td></td><td>PLASTIC/Polypropylene - PP</td><td>5 g</td></tr>
<tr><td colspan="3">The plastic packaging material contains at least 50% recycled content.</td></tr>
<tr><td colspan="4">The corrugated paper packaging materials contains at least 70% recycled content.</td></tr>
<tr><td>Material Usage</td><td colspan="3">This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf):

Asbestos
Certain Azo Colorants
Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
Cadmium
Chlorinated Hydrocarbons
Chlorinated Paraffins
Formaldehyde
Halogenated Diphenyl Methanes
Lead carbonates and sulfates
Lead and Lead compounds
Mercuric Oxide Batteries
Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
Ozone Depleting Substances
Polybrominated Biphenyls (PBBs)
Polybrominated Biphenyl Ethers (PBBEs)
Polybrominated Biphenyl Oxides (PBBOs)
Polychlorinated Biphenyl (PCB)
Polychlorinated Terphenyls (PCT)
Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
Radioactive Substances
Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

</td></tr>
</table>

Technical Specifications

Packaging Usage	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.
HP Inc. **Corporate Environmental Information**	For more information about HP's commitment to the environment: Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certificates: http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842 and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

COUNTRY OF ORIGIN

China

Options and Accessories (sold separately and availability may vary by country)

Type	Description	Part Number
Carrying Cases	HP Essential Top Load Case (up to 15.6")	H2W17AA#xxx
	HP Essential Backpack (up to 15.6")	H1D24AA
	HP Slim Top Load	F3W15AA
	HP Slim Backpack	F3W16AA
Docking	HP USBC Travel Dock	T0K29AA*
	HP Elite USBC Dock	X7W54AA#xxx*
	HP 3005pr USB3 Port Replicator	Y4H06AA*
Input/Output	HP Slim USB Keyboard & Mouse Bundle	T6T83AA#xxx
	HP 3-Button Laser Mouse	H4B81AA#xxx
	HP 2.4GHz Wireless Mouse	L0Z84AA#xxx
	HP Slim Wireless keyboard and mouse	T6L04AA#xxx
	HP HDMI to VGA Adapter	H4F02AA
	HP Stereo USB Headset	T1A67AA
	HP Stereo 3.5mm Headset	T1A66AA
	HP Active Pen	1FH00AA#xxx
Power	HP 45W Smart AC Adapter 4.5mm	H6Y88AA#xxx
	65W Smart AC Adapter	H6Y89AA#xxx
	HP Notebook Powerbank	N9F71AA#xxx
Storage	HP External USB Optical Drive	F2B56AA
Security	HP Keyed Cable Lock 10mm	T1A62AA

* Docking accessories will not be initially available with Windows 10 S.

Summary of Changes

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Datasheet

HP x2 210 G2 Detachable PC

Who has time for a device that just does one thing? When work demands flexibility, you need a mobile PC that can keep up. Designed to fit the way field sales force, small businesses, and mobile professionals work, the versatile HP x2 210 Detachable PC gives you five modes for the price of one.

HP recommends Windows 10 Pro.

- Windows 10 Pro[1]

An adaptable detachable.

Go beyond notebook and tablet functions with write, share, and watch modes that are ideal for business professionals in the office, and in the field. Create content, view and share documents, finish proposals, work e-mails, and more. [2]

PC-like productivity.

Maximize productivity in and out of the office with a detachable equipped with essential ports and a range of optional accessories including the HP Elite USB-C™ Dock.[3]

Easy to buy and maintain.

Be confident with the HP x2 210's modern manageability features, business-class warranty, TPM security, and protection options from HP support and services.[4]

Affordable, tablet-first design.

Get a cost-effective business 2-in-1 that combines dependable productivity with tablet-class thinness for the maximum mobility craved in sales and business environments.

Featuring

- Help protect from today's security threats and maximize management and productivity features for business with Windows 10 Pro.[1]
- Get a true business laptop experience for that important presentation, proposal or project with a durable keyboard base and 135° reflex hinge.
- An Intel® Atom™ Quad-Core processor[5] efficiently supports your business applications. Get the job done with up to 4 GB of memory and up to 128 GB of storage.
- Quickly charge your HP x2 210 with the fast charging battery that also provides you long battery life when you're on the road.
- Web conference[6] with clients and colleagues with a HD front camera, and capture images with a 5MP rear camera..
- Wirelessly project HD content in a conference room or client site with or Miracast.[7]
- Create content, close deals, and finalize projects in the field with accessories[3] that fit your needs.
- Proactively monitor and troubleshoot IT-related issues with HP Touchpoint Manager.[8]
- Optional HP Care Packs with Accidental Damage Protection help you avoid out-of-pocket repair or replacement costs and can deliver service right to your door.[4]

HP recommends Windows 10 Pro.

HP x2 210 G2 Detachable PC Specifications Table

Available Operating System	Windows 10 Pro 64 – HP recommends Windows 10 Pro. [1] Windows 10 Home 64 [1]
Processor Family	Intel® Atom™ x5 processor [2]
Available Processors	Intel® Atom™ x5-Z8350 (up to 1.92 GHz, 2 MB cache, 4 cores) [2]
Chipset	Chipset is integrated with processor
Maximum Memory	4 GB LPDDR3-1866 SDRAM (Transfer rates up to 1866 MT/s. Memory soldered down. Internal component upgrades to memory are not available after factory configuration.)
Internal Storage	32 GB up to 128 GB eMMC [3]
Display	10.1" diagonal WXGA anti-glare WLED eDP ultra-slim with capacitive multi-touch screen (1280 x 800) 25.65 cm (10.1") diagonal WXGA anti-glare WLED eDP ultra-slim with capacitive multi-touch screen (1280 x 800)[7]
Available Graphics	Intel® HD Graphics 400
Audio	HD audio with DTS Studio Sound™; Dual speakers
Wireless Technologies	Intel® 802.11a/b/g/n/ac (2x2) and Bluetooth® 4.0 Combo [4,5,6] (Compatible with Miracast supported devices. Support for Intel® WiDi)
Expansion Slots	1 microSD
Ports and Connectors	1 USB 3.0 (tablet); 1 USB-C™ 2.0 (tablet); 1 micro HDMI (tablet); 1 headphone/microphone combo (tablet); 1 pogo pin docking connecor (tablet)
Input Device	93% of full size island-style thin cover keyboard with image sensor Clickpad (multi-touch gestures enabled)
Camera	2 Fixed Integrated Web cameras; Front HP TrueVision HD camera; Rear HP True Vision 5 MP Fixed Focus (2592 x 1944) support WFOV [4,7]
Available Software	Buy Office; HP Touchpoint Manager; HP ePrint; HP Support Assistant; Optional HP School Pack [8,9,10,12]
Security Management	TPM 2.0
Power	45 W USB Type-C™ AC adapter 2-cell, 32.5 Wh Li-ion polymer Up to 10 hours and 15 minutes[13]
Dimensions	10.43 x 6.81 x 0.36 in (tablet); 10.43 x 6.81 x 0.93 in (tablet with keyboard) 26.5 x 17.3 x 0.92 cm (tablet); 26.5 x 18.3 x 2.35 cm (tablet with keyboard)
Weight	Starting at 1.3 lb (tablet); Starting at 2.65 lbs (tablet and keyboard) Starting at 0.59 kg (tablet); Starting at 1.2 kg (tablet and keyboard) (Weight will vary by configuration.)
Environmental	Low halogen [11]
Energy Efficiency Compliance	ENERGY STAR® certified, EPEAT® Silver registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country.
Warranty	HP Elite Support with limited 1-year standard parts and labour (1/1/0) warranty; Terms and conditions vary by country; Certain restrictions and exclusions apply.

HP recommends Windows 10 Pro.

HP x2 210 G2 Detachable PC

Accessories and services (not included)

HP Pro Tablet Active Pen

Maximize your mobile productivity with the HP Pro Tablet 408 Active Pen,[1] which allows you to write naturally on your HP Pro Tablet 408 G1 screen and navigate touchscreen activities.
Product number: K8P73AA

HP UltraThin Bluetooth Mouse

Boost your productivity in style with the HP Ultrathin Wireless Mouse, a super-thin, super-sleek Bluetooth® mouse.
Product number: L9V78AA

HP USB 3.0 to Gigabit LAN Adapter

Convert your notebook's high-speed USB 3.0 connection to a fast 10/100/1000 Ethernet connection with the USB 3.0 to Giga LAN Adapter.
Product number: N7P47AA

HP Elite USB-C Docking Station

Charge your device, view content on dual displays, access a range of accessories, and connect to a desktop PC experience with a single cable connection to the HP Elite USB-C™ Docking Station.
Product number: T3V74AA

HP Elite Top Load Colombian Leather Case

Set a new style standard when you're on the move with the HP Elite Top Load Colombian Leather Case[1], a beautifully lush full-grain leather bag that helps protect your devices and data and has ultimate expandability for your everyday essentials without the extra bulk.
Product number: T9H72AA

HP 3 Year Next Business Day Onsite Hardware Support W/Accidental Damage Protection.

Care Pack

When hardware issues come up, the sooner you can get running again, the better. Have expertise at the ready with HP Hardware Next Business Day Onsite Service with Accidental Damage Protection, and vastly improve your product uptime. With high-quality remote assistance or convenient onsite support available the next business day, help is there when you need it—so you can get back to work
Product number: U9BA9E

HP recommends Windows 10 Pro.

Messaging Footnotes

[1]Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.microsoft.com.
[2]Includes Word Mobile, Excel Mobile, PowerPoint Mobile and OneNote.
[3]Sold separately or as an optional feature.
[4]HP Care Services are optional. Service levels and response times for HP Care Services may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.
[5]Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering is not a measurement of higher performance.
[6]Internet access required and sold separately.
[7]Intel® Wireless Display available on Intel® products only. Requires a separate Wireless Display receiver with a USB port and an HDTV or Monitor with HDMI input. High definition (HD) content is required to view high-definition images.
[8]HP Touchpoint Manager requires purchase of a subscription and supports Android™, iOS and Windows 7 or higher operating systems and PCs, notebooks, tablets and smartphones from various manufacturers. Not available in all countries see www.hp.com/touchpoint for availability information.

Technical Specifications Footnotes

[1] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.microsoft.com.
[2] Multi-Core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering is not a measurement of higher performance.
[3] For storage drive, GB = 1 billion bytes. Actual formatted capacity is less. Up to 6 GB (for Windows 10) is reserved for system recovery software.
[4] Wireless access point and internet service required and not included. Availability of public wireless access points limited.
[5] Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming media players that also support Miracast. You can use Miracast to share what you're doing on your PC and present a slide show. For more information: http://windows.microsoft.com/en-us/windows-8/project-wireless-screen-miracast.
[6]Integrated Intel Wi-Di feature is available on select configurations only and requires separately purchased projector, TV or computer monitor with an integrated or external Wi-Di receiver. External Wi-Di receivers connect to the projector, TV or computer monitor via a standard HDMI cable, also sold separately.
[7] HD content required to view HD images.
[8] HP Touchpoint Manager supports Windows operating systems, and PCs, notebooks, tablets, and smartphones from various manufacturers. Not available in all countries. See www.hp.com/touchpoint for availability information. HP Touchpoint Manager requires purchase of a subscription.
[9] HP ePrint requires an internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see www.hp.com/go/businessmobileprinting.
[10] HP Support Assistant. Internet access required.
[11] External power supplies, power cords, cables and peripherals are not low halogen. Service parts obtained after purchase may not be low halogen.
[12] HP School Pack is sold separately or as an optional feature.
[13] Windows 10/MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See www.bapco.com for additional details.

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4AA6-5903ENUC, February 2017

Product Announcement

Targus Protective Case for HP x2 210

Part # THZ705USZ

Marketing Description:

In educational environments--where tablet protection and easy-to-use functionality are key--the Targus Protective Case for HP x2 210 makes the grade. This versatile case can be used with the HP x2 210 in tablet mode or laptop mode with the keyboard attached. A built-in kickstand enables hands-free viewing, while the elastic hand strap provides a comfortable and convenient way to carry the tablet. Other features include a built-in stylus holder and access to the tablet's camera, buttons and ports.

Keyboard Compatible

Stylus not included

Built-In Hand Strap

Product Features and Specifications:

- Protects the HP x2 210 tablet and keyboard while maximizing functionality
- Built-in kickstand can be used in both tablet-only mode and with keyboard
- Provides access to camera, buttons and ports while in the case
- Includes convenient and comfortable elastic hand-strap
- Built-in stylus holder

Product Name:	Targus Protective Case for HP x2 210	**Product Dimensions:**	9.06"L x 1.26"W x 11.6"H (23 x 3.2 x 29.5cm)
Targus Part Number:	THZ705USZ	**Compatibility:**	HP x2 210
Color:	Black	**Unit Weight:**	1.47lb (0.67kg)
SRP:	$59.99	**Master Carton Quantity:**	20
Announcement Date:	January 8, 2017	**Country of Origin:**	China

Questions? Please contact hp@targus.com or your local Targus sales representative.

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Overview

HP x2 210 G2 Detachable PC

Front Tablet View

1. Webcam
2. Front-facing camera LED
3. Speakers (2)
4. Guide pins (2)
5. Detachable keyboard
6. Touchpad

Overview

Front-left view

1. Volume control
2. Stereo headphone-out/mic-in combo jack

Overview

At A Glance

- An affordable 2 in1 designed to tablet-class thinness, featuring five flexible positions for comfort and productivity
- Windows 10 Pro or Windows 10 Home, and Windows 10 MSNA
- Intel® Atom™ x5 Z8350 (up to 1.92 GHz, 2 MB cache, 4 cores)
- Integrated Intel® HD Graphics
- 10.1" diagonal WXGA Anti-glare WLED, eDP (1280 x 800) UWVA Ultra-Slim Touch Display
- Up to 4 GB of memory
- 0.92 cm (0.36 in) thin for tablet only*
- Starting weight for Tablet only 0.59 kg (1.30 lbs)
- Starting Tablet and Keyboard weight 1.2 kg (2.60 lbs)
- HD Audio with DTS Studio Sound™, dual speakers and Web camera
- Up to 128 GB eMMC storage
- Multitouch gestures enabled for clickpad
- Security features include fTPM 2.0
- Wireless connectivity:
  - Intel® 802.11 a/b/g/n/ac (2x2) +Bluetooth® 4.2 Combo
- Standard commercial 1 year limited warranty. Optional HP Care Packs also available.

* HP X2 210 G2 is only offered with Keyboard.

NOTE: See important legal disclosures for all listed specs in their respective features sections.

Technical Specifications

PRODUCT NAME

HP x2 210 G2 Detachable PC

OPERATING SYSTEM

Preinstalled[1]

Windows 10 Home 64[1]
Windows 10 Pro 64[1]
Windows 10 MSNA 64[1]

1. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.microsoft.com.

PROCESSOR

Intel® Atom™ x5 Z8350 (1.44GHz up to 1.92 GHz, 2 MB cache, 4 cores)

CHIPSET

Integrated SoC

GRAPHICS

Intel® HD Graphics 400

Supports
Dynamic Graphics Frequency, DX12, OpenGL 3.X, OpenCL 1.2

DISPLAY

Internal
Touch
10.1" (25.65 cm) diagonal WXGA Anti-glare WLED, eDP (1280 x 800) UWVA Ultra-Slim

- 220 nits
- Touch solution with flush glass
- Multitouch enabled

Internal

10.1" diagonal WXGA Anti-glare WLED (1280 x 800) UWVA Ultra-Slim MIPI)

- 16:10 Ultra Wide Aspect Ratio IPS

Technical Specifications

- 220 nits
- 10-finger multi touch, capacitive
- Supports active pen
- Full Win10 touch/pen compliance

Technical Specifications

STORAGE

Embedded Multi Media Card (eMMC) on Tablet[1]
2/32 GB
4/64 GB
4/128 GB

Expandable Card Expansion on Tablet
Micro Secure Digital (SD) Media Reader
Support SD/SDHC/SDXC (Up to 2TB)
Push-Push Insertion/Removal

NOTE: Sold separately or as an optional feature.
Internal component upgrades to storage are not available after factory configuration.

MEMORY

On-board system memory
LPDDR3-1600 Single Channel Support
LPDDR3-1866 1.2V (Transfer rates up to 1600 MT/s)

Supports up 4GB
2 GB (256 MB x16 x 4pcs)
4 GB (256 MB x 16 x 4 x 2pcs)

NOTE: Internal component upgrades to memory are not available after factory configuration.

NETWORKING/COMMUNICATIONS

Wireless LAN (WLAN)
Intel® 802.11 a/b/g/n/ac (2x2) +Bluetooth® 4.0 battery Combo[1]

Compatible with Miracast-certified devices[2]
Connected Standby support

1. Wireless access point and Internet service is required and is not included. Availability of public wireless access points limited.
2. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming media players that also support Miracast. You can use Miracast to share what you're doing on your PC and present a slide show. For more information: http://windows.microsoft.com/en-us/windows-8/project-wireless-screen-miracast.

Technical Specifications

AUDIO/MULTIMEDIA

Audio
HD Audio with DTS Studio Sound™
Dual Speakers

Microphone
- Single Digital Mic
- Enable HP Noise Cancellation
- Support Voice Recognition

Web Cameras
Two Fixed Integrated Web cameras[1]
Front
HP True Vision HD
HD 720p (1280 x 720) camera - indicator LED, USB 2.0, f2.0
Rear
HP True Vision 5 MP Fixed Focus (2592 x 1944) support WFOV

1. Wireless access point and Internet service is required and is not included. Availability of public wireless access points limited.

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard and clickpad
93% Island style thin cover keyboard (1.5mm travel distance) with image sensor clickpad
Multitouch gestures enabled for clickpad
6 PIN Pogo-pin docking connector connect to slate
Supports Windows 10 Modern Trackpad Gestures
Optional Detachable Hard Keyboard Cover[1]

1. Sold separately or as an optional feature.

Buttons
Power
Volume control up and down

LED Indicators
Tablet
Charging Status
Webcam

Keyboard
Caplock
mute

Technical Specifications

SOFTWARE AND SECURITY

Information and Productivity
Dropbox
Glide
Snapfish- Metro
Netflix- Metro[1]
Amazon- Metro
Trip Advisor- Metro
Priceline

HP Value Added Software
Buy Office
HP 3D DriveGuard
HP Touchpoint Manager[2]
HP Store Bookmarks in EMEA
HP Support Assistant
HP PC Hardware Diagnostics
HP Setup Integrated OOBE
HP ePrint[3]
HP School Pack[4]
Win10 Welcome App
Win 10 Recovery Manager
Internet Explorer Home
Bing Search for IE11

Security
fTPM 2.0 (Intel® Technology)
Avast Secureline VPN

NOTES:
1. Netflix Metro trial membership must be used within 30 days of account registration. To avoid being charged future fees of $9.99/monthly simply cancel +1(886) 579-7172) before the 30 day trial period ends.
2. HP Touchpoint Manager requires purchase of a subscription HP Touchpoint Manager supports Windows operating systems, and PCs, notebooks, tablets, and smartphones from various manufacturers. Not available in all countries. See www.hp.com/touchpoint for availability information.
3. HP ePrint requires an internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see http://www.hp.com/go/businessmobileprinting.
4. HP School Pack is sold separately or as an optional feature.

Technical Specifications

POWER

Power Supply
45W USB Type-C™ AC adapter

Power Cord
Power cord is 1-meter-long (3.28 feet)

Primary Battery (Tablet)
2- cell Lithium Polymer battery (32.5 WHr)

NOTE: Battery is internal and not replaceable by customer. Serviceable by warranty.

Battery life
Up to 10 hours and 15 minutes [1]

HP Fast Charge
30 minutes 50%

System Standby Time
TBD

1. Windows 10/MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See www.bapco.com for additional details.

WEIGHTS & DIMENSIONS

Weight[1]
Tablet only
0.59 Kg (1.3 lbs)

Keyboard only
1.2 Kg (2.6 lbs)

Dimensions[2]
(w x d x h)

Tablet only
26.5 x 17.3 x 0.92 cm
(10.43 x 6.81 x 0.36 in)

Tablet with keyboard
26.5 x 18.3 x 2.35 cm
(10.43 x 6.81 x 0.93 in)

1. Weight varies by configuration and components.
2. Height varies depending upon where on the notebook the measurement is made.

Technical Specifications

PORTS/SLOTS

Tablet

1 USB 3.0
1 USB Type-C™ 2.0 (Data transfer + Charging)
1 Headphone / Microphone in Combo Jack
1 Micro HDMI v1.4 output (supports up to 1920 x 1080 @ 60 Hz)
1 Pogo-pin (6-pin) docking connector

Slots

1 MicroSD slot

SERVICE AND SUPPORT

HP 1 year limited warranty. 1-year limited warranty on primary battery. Optional[1] HP Care Packs [2] are extended service contracts which go beyond your standard limited warranties. For more details, visit: http://www.hp.com/go/lookuptool.

1. Sold separately or as an optional feature.
2. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/cpc.

Technical Specifications

SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)	**Nominal Operating Voltage**	90Vac~264Vac
	Average Operating Power	45W
	Max Operating Power	45W
Temperature	**Operating**	0 to 35°C
	Non-operating	-20 to +85°C
Relative Humidity	**Operating**	0% to 95%
	Non-operating	0% to 95%
Shock	**Operating**	10 G, 11ms, half sine
	Non-operating	240 G peak, 2ms, half sine
Random Vibration	**Operating**	0.75 grms
	Non-operating	1.50 grms
Altitude (unpressurized)	**Operating**	0 to 5,000 m (0 to 16,404 ft)
	Non-operating	0 to 5,000 m (0 to 16,404 ft)
Planned Industry Standard Certifications	**UL**	Yes
	CSA	Yes
	FCC Compliance	Yes
	ENERGY STAR®	Support
	EPEAT®	Support
	ICES	Yes

* Configurations of the HP x2 210 G2 Detachable PC that are ENERGY STAR qualified are identified as HP x2 210 G2 Detachable PC ENERGY STAR on HP websites and on http://www.energystar.gov.
** EPEAT registration varies by country. See http://www.epeat.net for registration status by country. EPEAT status listed above applies to U.S.

For accessibility information on HP products, please visit: http://www.hp.com/accessibility.

DISPLAY

10.1" diagonal WXGA Anti-glare WLED, eDP (1280 x 800) UWVA Ultra-Slim Touch	**Outline Dimensions** (W x H x D)	228.02(H) x 148.6(V) x 2.6 (panel) / 4.6 (panel+PCB) max.
	Active Area	216.96(H)x135.6(V)
	Weight	145g max (LCD only, without touch panel)
	Diagonal Size	10.1"
	Touch Enabled	Yes
	TSP Type	Direct Bonding
	Surface Treatment	BV, Anti-glare
	Contrast Ratio	800:1 (typ)
	Refresh Rate	60/40Hz
	Response time	30ms typ.
	Pixel Per Inch (PPI)	150

Technical Specifications

Brightness	220 nit	
Pixel Resolution	**Format**	RGB
	Configuration	Vertical Stripe
Interface	eDP	
LCD Mode	AHVA	
Viewing Angle	85/85/85/85	

Note: All display specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

NETWORKING/COMMUNICATIONS

Intel® 802.11 a/b/g/n/ac (2x2) +Bluetooth® 4.2 Combo

Wireless LAN Standards

IEEE 802.11a
IEEE 802.11b
IEEE 802.11g
IEEE 802.11n
IEEE 802.11ac

Interoperability

Wi-Fi certified

Frequency Band

802.11b/g/n

- 2.402 – 2.482 GHz

Note:
The FCC has declared as of January 1, 2015 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels.

802.11a/n

- 4.9 – 4.95 GHz (Japan)
- 5.15 – 5.25 GHz
- 5.25 – 5.35 GHz
- 5.47 – 5.725 GHz
- 5.825 – 5.850 GHz

Note: Indonesia no support this band

Data Rates

- 802.11b: 1, 2, 5.5, 11 Mbps
- 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz)
- 802.11ac : MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, and 80MHz)

Modulation

Direct Sequence Spread Spectrum
BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM

Security[1]

- IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only
- AES-CCMP: 128 bit in hardware
- 802.1x authentication
- WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.

- WPA2 certification
- IEEE 802.11i
- Cisco Certified Extensions, all versions through CCX4 and CCX Lite
- WAPI

Network Architecture	Ad-hoc (Peer to Peer)
Models	Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power[2]	• 802.11b : +16dBm minimum • 802.11g : +14dBm minimum • 802.11a : +14dBm minimum • 802.11n HT20(2.4GHz) : +14dBm minimum • 802.11n HT40(2.4GHz) : +12dBm minimum • 802.11n HT20(5GHz) : +14dBm minimum • 802.11n HT40(5GHz) : +12dBm minimum
Power Consumption	Transmit: 2.0 W (max) Receive: 1.6 W (max) Idle mode (PSP): 180 mW (WLAN Associated) Idle mode: 50 mW (WLAN unassociated) Connect Standby: 10 mW (WLAN+BT) Radio disabled: 5 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity[3]	802.11b, 1Mbps : -94dBm maximum 802.11b, 11Mbps : -86dBm maximum 802.11g, 6Mbps : -88dBm maximum 802.11g, 54Mbps : -74dBm maximum 802.11a, 6Mbps : -88dBm maximum 802.11a, 54Mbps : -74dBm maximum 802.11n, MCS07 : -69dBm maximum 802.11n, MCS15 : -66dBm maximum 802.11ac, 1SS, MCS-0 : -86dBm maximum 802.11ac, 1SS, MCS-9 : -61dBm maximum 802.11ac, 2SS, MCS-0 : -83dBm maximum 802.11ac, 2SS, MCS-9 : -58dBm maximum
Antenna type	High efficiency antenna with spatial diversity, mounted in the display enclosure Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	Type 2230 : 2.3 x 22.0 x 30.0 mm Or Type 1630 : 2.3 x 16.0 x 30.0 mm
Weight	Type 2230 : 2.8g Or

Technical Specifications

	Type 1630: 2g	
Operating Voltage	3.3v +/- 9%	
Temperature	Operating	14° to 158° F (–10° to 70° C)
	Non-operating	–40° to 176° F (–40° to 80° C)
Humidity	Operating	10% to 90% (non-condensing)
	Non-operating	5% to 95% (non-condensing)
Altitude	Operating	0 to 10,000 ft (3,048 m)
	Non-operating	0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED White – Radio ON	

1. Check latest software/driver release for updates on supported security features.
2. Maximum output power may vary by country according to local regulations.
3. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

HP Integrated Module with Bluetooth 4.0/4.1/4.2 Wireless Technology

Bluetooth Specification	4.0/4.1/4.2 Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.

POWER

45W USB Type-C™ A C adapter	**Dimensions** (H x W x D)	107x47x30mm (Max. size)	
	Weight	200g +/-10%	
	Input	90Vac ~ 264Vac	
		Input Efficiency	Average Efficiency of 25%, 50%, 75%, 100% load condition with 115Vac/230Vac Spec: 5V : 78.71% 12V : 87.41% 15V : 87.73%
		Input frequency range	47 ~ 63Hz
		Input AC current	Input : 90V /47Hz ; Output: 15V / 3A 45W Input AC current 1.4A (max)
	Output	**Output power**	5V/10W 12V/36W 15V/45W
		DC output	5V / 12V / 15V
		Hold-up time	5ms

Technical Specifications

		Output current limit	5V/2A 12V/3A 15V/3A
	Connector	USB TYPE C Connector	
	Environmental Design	**Operating temperature**	0 to 35℃
		Non-operating (storage) temperature	-20 to +85℃
		Altitude	5,000m above sea level.
		Humidity	95 percent, non-condensing.
		Storage Humidity	95 percent, non-condensing.
	EMI and Safety Certifications	CE Mark - full compliance with LVD and EMC directives; Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE; Reliability - failure rate of less than 0.1% annually within the first three years of operation.	
Lithium Polymer battery (32.5 WHr)	**Dimensions** (H x W x L)	3.5mm*124.85mm*169.9mm (0.14in*4.92in*6.69in)	
	Weight	0.135kg+/-0.010kg (0.3lb+/-0.02lb)	
	Cells/Type	Lishen SP2982B1SF/LGC ICP2982111L1 ;3cells	
	Energy	**Voltage**	7.7V
		Amp-hour capacity	4.23Ah
		Watt-hour capacity	32.5Wh
	Temperature	**Operating (Charging)**	0°C~ 45°C
		Operating (Discharging)	-10°C~ 60°C
		Non-operating	-20°C~ 60°C1 Month
	Fuel Gauge LED	No LED	
	Warranty	3 years	
	Optional Travel Battery Available	No	

COUNTRY OF ORIGIN

China

ENVIRONMENTAL

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- IT ECO declaration
- US ENERGY STAR®
- EPEAT® Gold registered in the United States. See http://www.epeat.net for registration status in your country.

Technical Specifications

System Configuration

The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a "Typically Configured Notebook".

Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Sort idle)	4.47 W	4.53 W	4.42 W
Normal Operation (Long idle)	2.17 W	2.19 W	2.12 W
Sleep	1.29 W	1.35 W	1.32 W
Off	0.33 W	0.33 W	0.33 W

Note:
Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	15 BTU/hr	15 BTU/hr	15 BTU/hr
Normal Operation (Long idle)	7 BTU/hr	7 BTU/hr	7 BTU/hr
Sleep	4 BTU/hr	5 BTU/hr	5 BTU/hr
Off	1 BTU/hr	1 BTU/hr	1 BTU/hr

*NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)
Typically Configured – Idle	2.8	16
Fixed Disk – Random writes	3.1	22

Longevity and Upgrading

This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include:

- 3 USB ports
- 1 PC card slot (type I/II)
- 1 ExpressCard/54 slot
- 1 IEEE 1394 Port
- 2 SODIMM memory slots
- Optional expansion base docking station
- 1 multi-bay II storage port
- Interchangeable HDD??

Spare parts are available throughout the warranty period and or for up to "5" years after the end of production.

Technical Specifications

Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Batteries used in the product do not contain:
Mercury greater the1ppm by weight
Cadmium greater than 20ppm by weight

Battery size: CR1220 (coin cell)
Battery type: Lithium
Battery size: 2-cell high capacity Lithium-Ion battery
Battery type: Li-ion/Li-ion Polymer

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT) standard at the gold level, see www.epeat.net
- Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.
- This product contains 0% post-consumer recycled plastic (by wt.)
- This product is 95.9% recycle-able when properly disposed of at end of life.

Packaging Materials

External:	PAPER/Corrugated	326 g
Internal:	PLASTIC/EPE (Expanded Polyethylene)	46.2 g
	PLASTIC/Polyethylene low density	5.5 g

The plastic packaging material contains at least 0% recycled content.
The corrugated paper packaging materials contains at least 80% recycled content.

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been

voluntarily removed from most applications.

- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging Usage

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

End-of-life Management and Recycling

Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Hewlett-Packard Corporate Environmental Information

For more information about HP's commitment to the environment:

Global Citizenship Report
http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html
Eco-label certifications
http://www8.hp.com/us/en/hp-information/environment/ecolabels.html
ISO 14001 certificates:
http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842
and
http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

Options and Accessories (sold separately and availability may vary by country)

Type	Description	Part Number
Cases	HP Essential Backpack (up to 15.6")	H1D24AA
	HP Slim Ultrabook Messenger (up to 15.6" x .88"/22/5mm)	F3W14AA
	HP Slim Ultrabook Top Load (up to 15.6" x .88"/22/5mm)	F3W15AA
	HP Slim Ultrabook Backpack (up to 15.6" x .88"/22/5mm)	F3W16AA
	HP Elite Top Load Leather Case[1]	T9H72AA
	HP Top Load Nylon Case[1]	T9H73AA
Docking	HP Elite USB Type-C™ Docking Station (USB-A)	X7W54AA
	HP USB Travel Dock(USB-A)	T0K30AA
	HP 3005pr USB 3 Port Replicator(USB-A)	H1L08AA
Input/Output	HP Slim USB Keyboard and Mouse	T6T83AA
	HP 3-Button Laser Mouse	H4B81AA
	HP Ultrathin Wireless Mouse	L9V78AA
	HP 2.4 GHz Wireless Mouse	L0Z84AA
	HP Stereo 3.5mm Headset	T1A66AA
	HP Stereo USB Headset	T1A67AA
	HP Conferencing Keyboard	K8P74AA
	HP Speaker UC Phone	K7V16AA
	HP Wired UC Headset	K7V17AA
	HP Slim Wireless Keyboard and Mouse	T6L04AA
	USB Graphics Adapter	NL571AT
	HP Pro Tablet 408 Active Pen	K8P73A
Adapter	USB 3.0 to GigaLAN/USB	N7P47AA
	HP MicroHDMI to HDMI/VGA	K8E31AA
	HP Wireless Display Adapter	J1V25AA
	HP 45W USB Type-CTM AC Adapter	V5Y26AA#ABA
	HP External USB Optical Drive	F2B56AA

NOTE 1: North America Only.

Summary of Changes

Date of change:	Version history		Description of change:
August 2, 2016	Version 1 to 2:	Changed	p/n for HP Elite USB Type-C™ Docking Station
September 30, 2016	Version 2 to 3	Update	Updated Bluetooth, added battery life and updated Brightness specs.
October 5, 2016	Version 3 to 4	Update	Display information updated, added the Internal specifications
October 21, 2016	Version 4 to 5	Added	Environmental Data

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SPECTRUM INDUSTRIES INC.

INNOVATIVE FURNITURE
connecting you with technology™

NEW

Connect30™ iPad, Chromebook, and Notebook Cart

Simplify your life, without breaking your budget

Our rugged, reliable, and convenient cart is an outstanding value.

ETL listed to UL 60950-1 standard.

iPAD, CHROMEBOOK, AND NOTEBOOK STORAGE SOLUTION

User-Friendly Design

- Integrated handles and convenient cord wraps
- Superior chimney-effect ventilation
- Easily-accessible auxiliary power outlet on inside and outside of cart
- Durable metal finish protects the cart from being scratched
- Durable 4" balloon wheels for easy rolling and maneuvering
- Optional Handle for improved meneuverability

Perfectly Sized

- Spacious bays accommodate large tablets, Chromebooks, and notebooks
- Small footprint fits into any classroom or learning space
- Stores and charges up to 30 devices of varying sizes

Safe and Secure

- Keyed lock and padlock hasp for extra security
- Rounded surfaces to protect yourself and others when the cart is in motion
- Heavy-gauge steel frame construction for one of the toughest carts on the market
- Virtually indestructible ABS plastic dividers
- ETL listed to UL 60950-1 standard

Conveniently Wired

- Single power cord and external switch
- Access through lockable rear panel for easy wiring
- Power strips accommodate most in-line adapters and wall plugs
- Optional PowerProdigy™ directs power to devices as needed
- Optional removable QuickBrick™ trays simplify wiring

925 FIRST AVENUE, CHIPPEWA FALLS, WI 54729 / 800-235-1262 / 715-723-6750 / WWW.SPECTRUMFURNITURE.COM

ALL-STEEL CONSTRUCTION, WITH INTEGRATED HANDLES

OVERHEAD WIRE MANAGEMENT

REMOVABLE WIRE AND QUICKBRICK™ TRAYS

OPTIONAL SIDE HANDLE (FACTORY INSTALLED ONLY)

SHIPS FULLY ASSEMBLED

Connect30 55473-CAD

Connect30™ iPad, Chromebook, and Notebook Cart

DESIGN SPECS

NOMINAL DIMENSIONS (WITH 4" BALLOON WHEELS)	26"W x 24"D x 37.1"H
BAYS [30]	1.34"W x 15.67"D x 11.28"H

COLORS

AVAILABLE MODELS

55473-CAA	Connect30
55473-CAB	Connect30 with QuickBrick™ Trays
55473-CAD	Connect30 with PowerProdigy™ and QuickBrick™ Trays
55473-CAG	Connect30 with Handle
55473-CAH	Connect30 with QuickBrick™ Trays and Handle
55473-CAJ	Connect30 with PowerProdigy™, QuickBrick™ Trays, and Handle

*Chromebook and iPad are registered trademarks of Google, Inc. and Apple, Inc., respectively. No ownership or endorsement is implied by Spectrum Industries.

WARRANTY

10 year cart
2 year electrical

DESIGNED AND ASSEMBLED IN CHIPPEWA FALLS WISCONSIN.USA

SPECTRUM INDUSTRIES INC. 800-235-1262 / 715-723-6750 / WWW.SPECTRUMFURNITURE.COM

CUSTOMER APPROVAL SHEET

Please Email/Fax Approval back to Sales Rep

Product Type: Custom

Quote#:

Item #: 55473-CAD-20001 | Phantom Product | **Ref Item #:** 55473-CAD

Description: Connect30 Cart, Double Doors Front & Back, Keyed & Hasp

- Exterior Color Pkg: Warm Gray (Metal Finish)
- Caster Selection: 5" Baloon Wheel
- Electrical/Tray/Acssry: PowerProdigy/Tray
- Custom Double Doors Front and Back of Cart

Conceptual Drawing

Logo: No

Other Notes:

1) Add double doors to front and back of cart

2) 5" Baloon Wheels

0139703 [UNIT ASSEMBLY]	1	2	

4)

5)

Links:

W:\Product Specs

http://www.spectrumfurniture.com/en/resources/color-options/

16J01262000 [CONNECT30 DBL DOORS]	1		
0131606 [CONNECT30 DBL DOORS]	1	P0	

SPECTRUM INDUSTRIES INC.
925 First Ave P.O. Box 400 Chippewa Falls, WI 54729 Ph. 1-800-235-1262 Fax 1-800-335-0473
E-mail: spectrum@spectrumfurniture.com Web site: www.spectrumfurniture.com

Note:
Double Doors Front & Back
5" Balloon Wheels

By signing the Customer Approval Sheet the customer agrees that all changes listed above are correct. No orders for non-standard products will be accepted without a signed Customer Approval Sheet. Please submit both pages of this approval sheet when returning to Spectrum.

*****Non-standard products are non-returnable, non-refundable and can require a lead time of up to 6-12 weeks depending on the complexity of the changes and the time of year.*****

Approved By: _____ Date: _____
(signature)

_____
(print name)

SPECTRUM INDUSTRIES INC. 925 First Ave P.O. Box 400 Chippewa Falls, WI 54729 Ph. 1-800-235-1262 Fax 1-800-335-0473
E-mail: spectrum@spectrumfurniture.com Web site: www.spectrumfurniture.com

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TAB 17

Project Plan and Schedule with Dates for Deployment and Professional Development

Educators' Notebooks
Qty 30,000

K through 2nd Grade Tablets
Qty 18,000

3rd through 12th Grade Notebooks
Qty 111,330

Notes:

All lead times begin only after the Lease Agreement has been signed.

Factory lead times can improve once the order has been placed and a factory escalation can take place.

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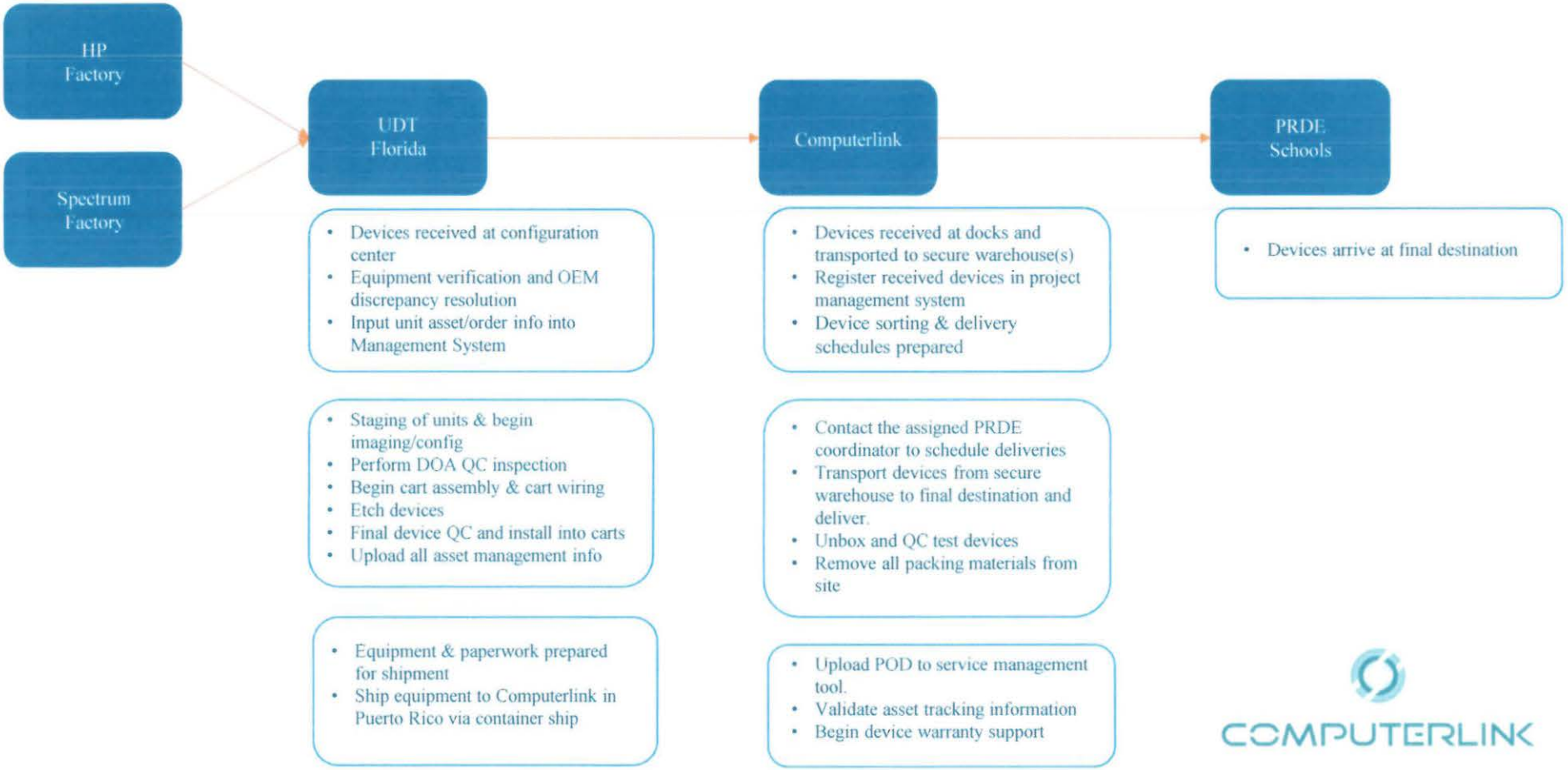
HP Factory
Spectrum Factory
UDT Florida
Computerlink
PRDE Schools
• Devices received at configuration center
• Equipment verification and OEM discrepancy resolution
• Input unit asset/order info into Management System
• Staging of units & begin imaging/config
• Perform DOA QC inspection
• Begin cart assembly & cart wiring
• Etch devices
• Final device QC and install into carts
• Upload all asset management info
• Equipment & paperwork prepared for shipment
• Ship equipment to Computerlink in Puerto Rico via container ship
• Devices received at docks and transported to secure warehouse(s)
• Register received devices in project management system
• Device sorting & delivery schedules prepared
• Contact the assigned PRDE coordinator to schedule deliveries
• Transport devices from secure warehouse to final destination and deliver.
• Unbox and QC test devices
• Remove all packing materials from site
• Upload POD to service management tool.
• Validate asset tracking information
• Begin device warranty support
• Devices arrive at final destination
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Appendix C

Professional Development and Curriculum Integration Programmatic Plan

Pathway to Innovation – Administrator Track
Audience: LEA Director, Superintendents, district leaders and school directors
Target: 900 participants

Target Area Objective	Activity Professional Development	Modality	Timeline /Dates	Resources	Evaluation Assessment
Identify and address existing barrier and challenges to advancing curriculum and technology integration in districts and regions.	Survey: Technology Use Technology Skill level	Online	September – October 2018	Project Coordinator LEAs Directors Technology Coaches	Survey Instrument results
Provide training in Office 365 to administrators to improve technology proficiency and use in order to support modeling of technology use, the use of data to guide instructional decisions. Promote collaboration, data analytics, and project management best practices using Office 365.	Office 365 for Innovative Leaders – Part 1	Workshop	November 2018 – January 2019	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training in Office 365 to administrators to improve technology proficient and use in order to support modeling of technology use, the use of data to guide instructional decisions. Promote collaboration, data	Office 365 for Innovative Leaders – Part 2	Workshop	February - April 2019	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report

Appendix C

Professional Development and Curriculum Integration Programmatic Plan

analytics, and project management best practices using Office 365.					
Provide training to administrators of PRDOE to improve technology proficiency, to promote technology integration throughout the curriculum and best practices in the classroom.	SAMR Model and Lesson Plan Evaluation – best practices	Workshop	April – June 2019	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Identify and address existing barriers and challenges to advancing curriculum and technology integration in districts and regions after kick-off of program implementation.	Survey: Technology Use Technology Skill level	Online Training	May – June 2019	Project Coordinator LEAs Directors Technology Coaches	Survey Instrument results
Provide training in Blended Learning to administrators to improve technology integration in schools.	Blended Learning Implementing Overview	Workshop	August – October 2019	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
	Online Course using Microsoft Educator Community Learning Paths - self-teaching 20 hours in two years - Teaching with Technology	Online Training	November - 2019 - June 2021	Project Coordinator LEAs Directors Technology Coaches	Microsoft Educator Community Achievement Report

Appendix C

Professional Development and Curriculum Integration Programmatic Plan

	- Make what's next trough collaboration - Skype in the Classroom - Creating a digitally inclusive community - 21st Century Learning Design - Design, deploy & transform Workshop - OneNote Teacher Academy - Skype in the classroom Expert - MIE Trainer Academy - Basic Concept in technology				
Identify and address existing barriers and challenges to advancing curriculum and	Survey: Technology Use	Online	June 2020	Project Coordinator LEAs Directors	Survey Instrument results

technology integration in districts and regions after launching of program implementation.	Technology Skill level			Technology Coaches	
Identify and address existing barriers and challenges to advancing curriculum and technology integration in districts and regions after launching of program implementation.	Survey: Technology Use Technology Skill level	Online	June 2021	Project Coordinator LEAs Directors Technology Coaches	Survey Instrument results

Pathway to Innovation – Teachers Track
Audience: Faculty members (all discipline and grades)
Target: 30,000 participants

Target Area Objective	Activity Professional Development	Modality	Timeline /Dates	Resources	Evaluation Assessment
Identify and address existing barriers and challenges towards advancing curriculum and technology integration by disciplines, school, and grade level in all school regions.	Survey: Technology Use Technology Skill level Curriculum Integration	Online	September 2018	Project Coordinator LEAs Directors Technology Coaches	Survey Instrument results

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Professional Development and Curriculum Integration Programmatic Plan

Provide training to faculty members of PRDOE to improve technology proficiency, to promote technology integration throughout the curriculum and model best practices in the classroom.	Basic Training using of Technology in the classroom Classroom Management Device basic features	6 hours (3 hrs workshop and 3 hrs Online Training)	November – January 2018	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training to faculty members of PRDOE to improve technology proficiency, to promote technology integration throughout the curriculum and model best practices in the classroom.	Digital Citizenship -Knowing how to be safe online and use safeguards to protect our information -Knowing how to use and how to learn to use technology for learning purposes -Understanding what is appropriate and inappropriate digital behaviors -Understanding ethical and lawful use of digital tools. -Learning how to be an effective consumer in digital environments	9 hours (3 hrs workshop and 6 hrs Online Training)	February March 2019	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training to faculty members of PRDOE to improve technology proficiency, to promote	Office 365 in the classroom	Workshop 6 hours	February March 2019	Project Coordinator LEAs Directors	Attendance Report Pre test

Appendix C

Professional Development and Curriculum Integration Programmatic Plan

technology integration throughout the curriculum and model best practices in the classroom.				Technology Coaches	Post test Evaluation Report
Provide training to faculty members of PRDOE to improve technology proficiency, to promote technology integration throughout the curriculum and model best practices in the classroom.	Engaging and empowering Learning through technology – best practices	Workshop 6 hours	April – June 2019	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training to faculty members of PRDOE to improve technology proficiency, to promote technology integration throughout the curriculum and model best practices in the classroom.	SAMR Model and Lesson Plan Evaluation – best practices	Online Training	April – June 2019	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Identify and address existing barriers and challenges towards advancing curriculum and technology integration in districts and regions after the Program implementation.	Survey: Technology Use Technology Skill level	Online Training	June 2019	Project Coordinator LEAs Directors Technology Coaches	Survey Instrument results
Provide training in Blended Learning to teachers to improve technology integration in the	Blended Learning Part 1a – Overview, Getting Started with Phase1 of BL	Workshop	August – October 2019	Project Coordinator Technology Coaches	Attendance Report Pre test

Appendix C

Professional Development and Curriculum Integration Programmatic Plan

school with use of new devices and 21st century skills.	and Examples of BL in Action. Blended Learning in a mindset change context and **examine** reasons for 'blending'				Post test Evaluation Report
Provide training in Blended Learning to teachers to improve technology integration in the school with use of new devices and 21st century skills	Blended Learning Part 1b – Lessons plans templates, technology resources and Blended Learning Rubric. **Illustrate** different kinds of blends and **Examine** various digital tools that can be incorporated into learning and teaching to support Blended Learning.	Online Training	August – October 2019	Project Coordinator Technology Coaches Laptops Skype software	Attendance Report Pre test Post test Evaluation Report
Provide training in Blended Learning to teachers to improve technology integration in schools with use of new devices and 21st century skills.	Blended Learning Part 2a - Moving to Phase 2 and Implementing Data Folder and Binders **Investigate** learning and teaching strategies in Phase 2 in Blended Learning Phase 2 and	Workshop	August – October 2019	Project Coordinator Technology Coaches	Attendance Report Pre test Post test Evaluation Report

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Professional Development and Curriculum Integration Programmatic Plan

Provide training in Blended Learning to teachers to improve technology integration in schools with use of new devices and 21st century skills.	Blended Learning Part 2b – Classroom Design and Examples of phase 2 in Action **Analyze** key components of the Blended Learning Phase 2	Online Training	August – October 2019	Project Coordinator Technology Coaches Skype software Laptop	Attendance Report Pre test Post test Evaluation Report
Provide training in Blended Learning to teachers to improve technology integration in schools with use of new devices and 21st century skills.	Blended Learning Part 3 – Implementing the 4'C Activities, Phase 3 of BL and Project Based Learning **Appraise** the features of well-designed Blended Learning activities in comparison to face-to-face in Phase 3	Workshop	October 2019 – February 2020	Project Coordinator Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training in Blended Learning to teachers to improve technology integration in schools with use of new devices and 21st century skills.	Blended Learning Part 4 – Adding Global Connectedness into the BL process and Examples of Phase 3 in Action **Appraise** the features of well-designed Blended Learning activities in comparison to face-to-face and **Analyze** key components of the	Online	October 2019-February 2020	Project Coordinator Technology Coaches Skype software Laptop	Attendance Report Pre test Post test Evaluation Report

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Professional Development and Curriculum Integration Programmatic Plan

	Blended Learning Phase 3				
Provide training in Blended Learning to teachers to improve technology integration in schools with use of new devices and 21st century skills.	Blended Learning Part 5- Growth Mindset BL Lessons, Activities for Growth Mindset and Implementation Plans and Strategies **Design** and **Develop** a unit with a focus on Blended Learning.	Workshop	February – April 2020	Project Coordinator Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training in Blended Learning to teachers to improve technology integration in schools with use of new devices and 21st century skills.	Blended Learning Part 6- Understanding why Growth Mindset is important to BL and Moving towards Personalize Learning. **Understanding** why Growth Mindset is important to BL and **Explore** the fundamentals of Personalize Learning	Online Training	February – April 2020	Project Coordinator Technology Coaches Skype software Laptop	Attendance Report Pre test Post test Evaluation Report
Identify and address existing barriers and challenges to advancing curriculum and technology integration in districts and regions after the Program implementation.	Survey: Technology Use Technology Skill level	Online	June 2020	Project Coordinator LEAs Directors Technology Coaches	Survey Instrument results

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Professional Development and Curriculum Integration Programmatic Plan

Provide training to faculty members of PRDOE to improve technology proficiency, to promote technology integration throughout the curriculum and model best practices in the classroom.	Creating engaging and relevant learning experience through technology; using free resources and apps Including Nearpod, Teams, OneNote and others.	Online Training	August – October 2020	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training to faculty members of PRDOE to improve technology proficiency, promote technology integration throughout the curriculum and best practices in the classroom.	Aligning Education with Technology Standards	Workshop	August – October 2020	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training to faculty members of PRDOE to improve technology proficiency, to promote technology integration throughout the curriculum and model best practices in the classroom.	Building Digital Literacy in the students.	Online Training	October 2020-February 2021	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training to faculty members of PRDOE to improve technology proficiency, promote technology integration throughout the curriculum and model best practices in the classroom.	Digital Story Telling	Workshop	October 2020-February 2021	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report

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Professional Development and Curriculum Integration Programmatic Plan

Provide training to faculty members of PRDOE to improve technology proficiency, to promote technology integration throughout the curriculum and model best practices in the classroom.	Special Ed Technology Assistance	Online Training	October 2020-February 2021	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training to teachers to offer lessons that promote good digital citizenship	Digital Citizenship	Online Training	February – April 2021	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training in Project Based Learning to teachers to improve technology integration and 21st century skills development in their projects.	Project Based Learning with technology	Workshop	February – April 2021	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Provide training to faculty members of PRDOE to improve technology proficiency, promote technology integration throughout the curriculum and model best practices in the classroom.	SAMR Model and Lesson Plan Evaluation – best practices	Online Training	April – June 2021	Project Coordinator LEAs Directors Technology Coaches	Attendance Report Pre test Post test Evaluation Report
Identify and address existing barriers and challenges to advancing curriculum and	Survey: Technology Use	Online	June 2021	Project Coordinator LEAs Directors	Survey Instrument results

technology integration in districts and regions after the Program implementation.	Technology Skill level	Technology Coaches

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TAB 19

Joint Venture Documentation

(Not Applicable)