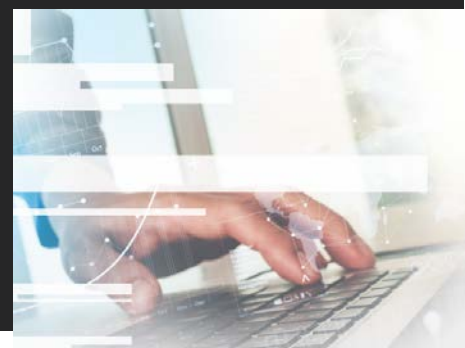


CHECK POINT SECURITY APPLIANCE ACCESSORIES GUIDE



EXPAND NETWORK CAPACITY, INCREASE PERFORMANCE & RELIABILITY

Check Point security gateway appliances are built with flexibility and expansion capability to meet the diverse requirements in today's enterprise networks. The modular design and the wide variety of network options available in Check Point network firewalls not only provide a rich set of connectivity options for these security gateways, they also make them highly customizable and ready for deployment in any network environment.

Keeping your networks available and keeping your business running is our ultimate goal. Check Point security appliances offer features such as redundant and hot-swappable storage and power supply. Combined together, these features ensure optimized system availability and a greater degree of business continuity. Extendable slide rails enable fast and easy rack installation and improve the system's serviceability.

QUANTUM SECURITY GATEWAY ACCESSORIES

		1 GbE Copper	1 GbE Fiber	10 GbE	40 GbE	100/25 GbE	Memory	Redundant Storage	Redundant Power	LOM
6200	Base	10	0	0	-	-	8	-	-	○
	Plus	10	4	0	-	-	16	-	●	●
	Maximums	18	4	4	-	-	32	-	●	●
6400	Base	10	0	0	-	-	8	-	●	○
	Plus	10	4	0	-	-	16	-	●	●
	Maximums	18	4	4	-	-	32	-	●	●
6600	Base	10	0	0	-	-	8	-	○	○
	Plus	10	0	4	-	-	16	-	●	●
	Maximums	18	4	4	-	-	32	-	●	●
6700	Base	10	0	0	0	-	8	-	○	○
	Plus	10	0	4	0	-	16	-	●	●
	Maximums	18	4	4	2	-	32	-	●	●
7000	Base	10	0	0	0	-	16	○	○	○
	Plus	10	0	4	0	-	32	●	●	●
	Maximums	26	8	8	4	-	64	●	●	●
16200	Base	10	0	0	0	0	48	○	○	○
	Plus	10	0	8	0	0	64	●	●	●
	Maximums	34	16	16	8	8	128	●	●	●
26000	Base	10	0	0	0	0	48	○	●	○
	Plus	10	0	12	0	0	96	●	●	●
	Maximums	66	32	32	16	16	128	●	●	●
28000	Base	2	0	4	0	0	64	○	●	○
	Plus	10	0	12	2	0	96	●	●	●
	Maximums	66	32	32	16	16	128	●	●	●

○ this is optional

6000, 7000, 16000, 26000 AND 28000 SERIES NETWORK ACCESSORIES

	6200 - 6700	7000	16200	26000, 28000
Expansion Slots	1	2	4	8

NETWORK I/O MODULES

SKU	CPAC-8-1C-C	CPAC-4-1F-C	CPAC-4-10F-C	CPAC-2-40F-C	CPAC-2-100/25F
					
Supported Models	6000, 7000, 16200, 26000, 28000	6000, 7000, 16200, 26000, 28000	6000, 7000, 16200, 26000, 28000	6700, 7000, 16200, 26000, 28000	16200, 26000, 28000
Number of Ports	8	4	4	2	2
Port Types	RJ-45 (Copper) 10/100/1000Base-T	SFP	SFP+	QSFP+	QSFP28
Speed	1 Gbps	1 Gbps	10 Gbps	40 Gbps	100/25 Gbps
Transceivers		CPAC-TR-1T-C CPAC-TR-1SX-C CPAC-TR-1LX-C	CPAC-TR-10LR-C CPAC-TR-10SR-C	CPAC-TR-40SR-QSFP-300m CPAC-TR-40LR-QSFP-10Km CPAC-TR-40SR-QSFP-BIDI	CPAC-TR-25SR-ADP CPAC-TR-25LR-ADP CPAC-TR-100SR CPAC-TR-100LR

NETWORK TRANSCEIVER SPECIFICATION (1G Transceivers)

SKU	CPAC-TR-1T-C	CPAC-TR-1SX-C	CPAC-TR-1LX-C
			
Supported Models	6000, 7000, 16200, 26000, 28000	6000, 7000, 16200, 26000, 28000	6000, 7000, 16200, 26000, 28000
Form Factor	SFP	SFP	SFP
Protocol	1000Base-T 1G Ethernet	1000Base-SX 1G Ethernet	1000Base-LX 1G Ethernet
Wavelength (nm)	-	850	1310
Connector	RJ-45	LC	LC
Distance (Max)	100m	300m (OM1) 550m (OM2)	10km
Supported Cable Type	Cat 5	multi-mode 62.5/125 µm Fiber (OM1) 50/125 µm Fiber (OM2)	Single mode 9/125 µm Fiber
Input Level (Receive Power) dBm	N/A	0 to -18dBm	0 to -19dBm
Output Level (Transmit Power) dBm	N/A	-2.5 to -9dBm	-3 to -9.5dBm
Matching I/O Module	CPAC-4-1F-C	CPAC-4-1F-C	CPAC-4-1F-C

NETWORK TRANSCEIVER SPECIFICATION (10G Transceivers)

SKU	CPAC-TR-10SR-C		CPAC-TR-10LR-C
			
Supported Models	6000, 7000, 16200, 26000, 28000		6000, 7000, 16200, 26000, 28000
Form Factor	SFP+		SFP+
Protocol	10GBASE-SR 10G		10GBASE-LR 10G
Wavelength (nm)	850		1310
Connector	LC		LC
Distance (Max)	1GbE 220m(OM1) 550m(OM3) >550m (OM3) >550m(OM4)	10GbE 26m(OM1) 82m(OM2) 300m(OM3) 400m(OM4)	10km
Supported Cable Type	multi-mode 62.5/125 µm Fiber(OM1) 50/125 µm Fiber(OM2) 50/125 µm Fiber(OM3) 50/125 µm Fiber(OM4)		Single Mode 9/125 µm Fiber
Input Level (Receive Power) dBm	+0.5 - 12.5dBm (1GbE) +0.5 - 13.5dBm (1GbE) +0.5 -11.1dBm (10GbE)	62.5 um MMF 50 um MMF 50 um MMF	-3 to-19dBm (1GbE mode) +0.5 to -12.6dBm (10GbE mode)
Output Level (Transmit Power) dBm	-1 to -9.5dBm (1GbE mode) -1 to -5dBm (10GbE mode)		-3 to -11dBm (1GbE mode) +0.5 to -8.2dBm (10GbE mode)
Matching I/O Modules	CPAC-4-10F-C		CPAC-4-10F-C

NETWORK TRANSCEIVER SPECIFICATION (40G Transceivers)

SKU	CPAC-TR-40SR-QSFP-300m	CPAC-TR-40LR-QSFP-10Km	CPAC-TR-40SR-QSFP-BiDi
			
Supported Models	6700, 7000, 16200, 26000, 28000	6700, 7000, 16200, 26000, 28000	6700, 7000, 16200, 26000, 28000
Form Factor	QSFP+	QSFP+	QSFP+
Protocol	40GBase-SR 40G	40GBase-LR 40G	40GBase-SR-BiDi 40G
Wavelength (nm)	850	1310	832, 918
Connector	MPO-12	LC	LC
Distance (Max)	300m (OM3) 400m (OM4)	10km	100m (OM3) 150m (OM4)
Supported Cable Type	Aqua: multi-mode, 50/125 µm fiber (OM3) 50/125 µm Fiber(OM4)	Yellow: single mode 9/125 µm Fiber	Aqua: multi-mode 50/125 µm fiber (OM3) 50/125 µm Fiber(OM4)
Input Level (Receive Power) dBm	+4dBm to -11.1dBm	+3.5dBm to -11.5dBm	+5dBm to -9.1dBm
Output Level (Transmit Power) dBm	+0.5dBm to -7.5dBm	+2.3dBm to -7dBm	+5dBm to -4dBm
Matching I/O Module	CPAC-2-40F-C	CPAC-2-40F-C	CPAC-2-40F-C

NETWORK TRANSCEIVER SPECIFICATION (25G, 100G Transceivers)

SKU	CPAC-TR25SR-ADP	CPAC-TR-25LR-ADP	CPAC-TR-100SR	CPAC-TR-100LR
				
Supported Models	16200, 26000, 28000	16200, 26000, 28000	16200, 26000, 28000	16200, 26000, 28000
Form Factor	SFP28 with QSFP28 adaptor	SFP28 with QSFP28 adaptor	QSFP28	QSFP28
Protocol	25GBASE-SR 25G Ethernet	25GBASE-LR 25G Ethernet	100GBase-SR4 100G Ethernet	100GBase-LR4 100G Ethernet
Wavelength (nm)	850	1310	850	1310
Connector	LC	LC	MPO-12	LC
Distance (Max)	20m(OM2) 70m(OM3) 100m(OM4)	10km	70m(OM3) 100m(OM4)	10km
Supported Cable Type	50/125 µm Fiber(OM2) 50/125 µm Fiber(OM3) 50/125 µm Fiber(OM4)	Single Mode 9/125 µm Fiber	50/125 µm Fiber(OM3) 50/125 µm Fiber(OM4)	single mode 9/125 µm Fiber
Input Level (Receive Power) dBm	+3dBm to -11.dBm	+2dBm to -12dBm	+2.4dBm to -10.3dBm	+4.5dBm to -10.6dBm
Output Level (Transmit Power) dBm	+2.4dBm to -8.4dBm	+3dBm to -5dBm	+2.4dBm to -8.4dBm	+4.5dBm to -4.3dBm
Matching I/O Module	CPAC-2-100/25F	CPAC-2-100/25F	CPAC-2-100/25F	CPAC-2-100/25F

DIRECT ATTACHED CABLES (10G AND 40G)

SKU	CPAC-DAC-10G-xM	CPAC-DAC-40G-xM
Supported Models	5600, 5800, 5900, 6000, 7000, 15000, 16200, 23000, 26000, 28000	5800, 7000, 15000, 16200, 23000, 26000, 28000
Form Factor	SFP+	QSFP+
Protocol	10BASE-CU	40BASE-CR4
Wavelength (nm)	850	1310
Distance (Max)	1m and 3m	1m and 3m
Cable Type	30AWG	28AWG
Compatible	SFP+ MSA, SFF-8431, SFF-8432	QSFP+ MSA, SFF-8436, SFF-8685
Operation Case Temperature	0°C to 70°C	0°C to 70°C
Operation Relative Humidity	10 to 90%	5 to 85%
Matching I/O Modules	CPAC-2-10F-B, CPAC-4-10F-B, CPAC-2-10F-C, CPAC-4-10F-C	CPAC-2-40F-B, CPAC-2-40F-C

See SecureKnowledge sk148192 for more information

POWER SUPPLIES

Dual power supplies increase the overall reliability of the security appliance. In the dual power supply configuration an audible alarm occurs when one power supply fails. Power Supply status is also monitored via SNMP or in the GAIa Web UI.

POWER SUPPLY OPTIONS (6000, 7000, 16000, 26000 and 28000)

	3000	6200, 6400 ¹	6600, 6700, 7000, 16200	26000, 28000
Redundant Power Supply	NA	NA	Optional	Included
DC Power Supply	NA	NA	Optional in 16200 only	Optional

¹ 6200, 6400 power supplies are not Field Replaceable Units (FRU)

POWER SUPPLY SPECIFICATION (6000)

	6600, 6700, 7000	7000
AC SKU	CPAC-PSU-AC-6600/6700/6900	CPAC-PSU-AC-7000
AC Power Input	90 to 240V (47-63Hz)	90 to 240V (47-63Hz)
Output Power	300W	300W

POWER SUPPLY SPECIFICATION (16000, 26000)

	16200	26000, 28000
AC SKU	CPAC-PSU-AC-16000	CPAC-PSU-AC-26000/28000
AC Power Input	100 to 240V (47-53Hz)	100 to 240V (47-53Hz)
Output Power	850W	1300W

STORAGE

Redundant drives are configured in a RAID1 mirror increasing system reliability. RAID status monitoring is available via SNMP.

REDUNDANT STORAGE OPTIONS (6000, 7000, 16000, 26000 and 28000)

	3000, 6200 - 6600	6700	7000, 16200, 26000, 28000
SSD Options	1x 240GB	1x 480GB	1x 480GB
Redundant Drive	NA	NA	Optional
RAID Setup			RAID1

LIGHTS-OUT MANAGEMENT

Lights-Out Management (LOM) provides out-of-band remote management to remotely diagnose, start, restart and manage the security appliance from a remote location.

LIGHTS-OUT MANAGEMENT OPTIONS (6000, 7000, 16000, 26000 and 28000)

	3000	6000, 7000, 16200, 26000, 28000
LOM	NA	Optional

LIGHTS-OUT MANAGEMENT SPECIFICATION

SKU	Features
CPAC-LOM-C (6000, 7000, 16200, 26000, 28000)	LOM/IPMI module with front 1 GbE RJ-45

MEMORY

Additional system memory increases connection capacity and improves the overall ability of the security appliance.

MEMORY OPTIONS (6000, 7000, 16000, 26000 and 28000)

	3000	6200 - 6700	7000	16200	26000	28000
Base	8	8	16	48	48	64
Plus	16	16	32	64	96	96
Maximums	NA	32	64	128	128	128

MEMORY SPECIFICATION (6000, 7000, 16000, 26000 and 28000)

Model	SKU	Start	Target	Modules
6200	CPAC-RAM8GB-6200	8	16	1x 8GB DDR4
	CPAC-RAM16GB-6200	16	32	1x 16GB DDR4
	CPAC-RAM24GB-6200	8	32	3x 8GB DDR4
6400	CPAC-RAM8GB-6400	8	16	1x 8GB DDR4
	CPAC-RAM16GB-6400	16	32	1x 16GB DDR4
	CPAC-RAM24GB-6400	8	32	3x 8GB DDR4
6600	CPAC-RAM8GB-6600	8	16	1x 8GB DDR4
	CPAC-RAM16GB-6600	16	32	1x 16GB DDR4
	CPAC-RAM24GB-6600	8	32	3x 8GB DDR4
6700	CPAC-RAM8GB-6700	8	16	1x 8GB DDR4
	CPAC-RAM16GB-6700	16	32	1x 16GB DDR4
	CPAC-RAM24GB-6700	8	32	3x 8GB DDR4
7000	CPAC-RAM16GB-7000	16	32	1x 16GB DDR4
	CPAC-RAM32GB-7000	32	64	2x 16GB DDR4
	CPAC-RAM48GB-7000	16	64	3x 16GB DDR4
16200	CPAC-RAM16GB-16000	48	64	2x 8GB ECC DDR4
	CPAC-RAM64GB-16000	64	128	8x 8GB ECC DDR4
	CPAC-RAM80GB-16000	48	128	10x 8GB ECC DDR4
26000	CPAC-RAM48GB-26000	48	96	4x 8GB ECC DDR4
	CPAC-RAM32GB-26000	96	128	4x 8GB ECC DDR4
	CPAC-RAM80GB-26000	48	128	10x 8GB ECC DDR4
28000	CPAC-RAM32GB-28000	64	96	4x 8GB ECC DDR4
	CPAC-RAM32GB-28000	96	128	4x 8GB ECC DDR4
	CPAC-RAM64GB-28000	64	128	8x 8GB ECC DDR4

RACK MOUNT OPTIONS

Slide rails provide simple installation (5-10 minutes) and easy maintenance access for 6000, 7000, 16000, 26000 and 28000 Security Appliances in a standard 19-inch (48.26 cm) rack (see specification EIA-310-D). For the desktop form factor of the 3000 Security Appliances, shelf rack mount kits available. Slide rails are optional in the 6200 and 6400, included in the 6600 to 28000.

RACK KIT SPECIFICATION (3000, 6000, 7000, 16000, 26000 and 28000)

	SKU	Depth
16200, 26000, 28000	CPAC-RAIL-L	22 in (55.9 cm) to 32 in (81.3 cm)
	CPAC-RAIL-EXT-L	24 in (61 cm) to 36 in (91.4 cm)
6000, 7000	CPAC-RAILS-6000/7000	22 in (55.9 cm) to 32 in (81.3 cm)
	CPAC-RAIL-EXT-6000/7000	24 in (61 cm) to 36 in (91.4 cm)
3600, 3800	CPAC-1500/3600/3800-RM-DUAL	Single/Dual 3000 1U Shelf Rack Mount

APPENDIX: 2016 SECURITY APPLIANCE ACCESSORIES

5000, 15000 AND 23000 ACCESSORY SUMMARY

These models are available in a base and a High Performance Pack (HPP) option. The HPP package includes the base system plus additional supported accessories such as Network Interface Cards (NIC), transceivers, disk drives, power supplies and memory for high connection capacity. Below is a summary comparison table.

		1 GbE Copper	1 GbE Fiber	10 GbE	40 GbE	100/25 GbE	Memory	Redundant Storage	Redundant Power	LOM
5100	Base	6	0	-	-	-	8	-	-	○
	HPP	6	4	-	-	-	16	-	-	●
	Maximums	14	4	-	-	-	32	-	-	●
5200	Base	6	0	-	-	-	8	-	-	○
	HPP	6	4	-	-	-	16	-	-	●
	Maximums	14	4	-	-	-	32	-	-	●
5400	Base	10	0	-	-	-	8	-	-	○
	HPP	10	4	-	-	-	16	-	-	●
	Maximums	18	4	-	-	-	32	-	-	●
5600	Base	10	0	0	-	-	8	-	○	○
	HPP	10	4	0	-	-	16	-	●	●
	Maximums	18	4	4	-	-	32	-	●	●
5800	Base	10	0	0	0	-	8	-	○	●
	HPP	10	0	2	0	-	16	-	●	●
	Maximums	26	8	8	4	-	32	-	●	●
5900	Base	10	0	0	0	-	8	○	○	●
	HPP	10	0	4	0	-	16	●	●	●
	Maximums	26	8	8	4	-	32	●	●	●
15400	Base	10	0	2	0	0	8	○	●	●
	HPP	10	0	6	0	0	24	●	●	●
	Maximums	26	12	12	6	6	64	●	●	●
15600	Base	10	0	2	0	0	16	●	●	●
	HPP	10	0	6	0	0	32	●	●	●
	Maximums	26	12	12	6	6	64	●	●	●
23500	Base	10	0	2	0	0	16	●	●	●
	HPP	10	0	10	0	0	64	●	●	●
	Maximums	42	20	20	6	6	128	●	●	●
23800	Base	10	0	2	0	0	32	●	●	●
	HPP	10	0	10	0	0	64	●	●	●
	Maximums	42	20	20	6	6	128	●	●	●
23900	Base	10	0	2	0	0	48	●	●	●
	HPP	10	0	10	0	0	64	●	●	●
	Maximums	42	20	20	6	6	128	●	●	●

○ this is optional

5000, 15000 AND 23000 SERIES NETWORK ACCESSORIES

Check Point 3000, 5000, 15000 and 23000 Security Appliances can be ordered with 1 GbE copper, 1 GbE fiber, 10 GbE fiber, 40 GbE or 100/25 GbE network interface cards. The modules and port density varies depending upon the security appliance and the number of expansion slots available.

	3100, 3200	5100, 5200, 5400, 5600	5800, 5900	15000	23000
Expansion Slots	0	1	2	3	5

NETWORK I/O MODULES (5000, 15000 and 23000)

SKU	CPAC-8-1C-B	CPAC-4-1F-B	CPAC-4-10F-B	CPAC-2-40F-B	CPAC-2-100/25F
					
Supported Models	5000, 15000, 23000	5000, 15000, 23000	5600, 5800, 5900, 15000, 23000	5800, 5900, 15000, 23000	15000, 23000
Number of Ports	8	4	4	2	2
Port Types	RJ-45 (Copper) 10/100/1000Base-T	SFP	SFP+	QSFP+	QSFP28
Speed	1 Gbps	1 Gbps	10 Gbps	40 Gbps	100/25 Gbps
Transceivers		CPAC-TR-1T-B CPAC-TR-1SX-B CPAC-TR-1LX-B	CPAC-TR-10SR-B CPAC-TR-10LR-B	CPAC-TR-40SR-QSFP- 300m CPAC-TR-40LR-QSFP- 10K CPAC-TR-40SR-QSFP- BIDI	CPAC-TR25SR-ADP CPAC-TR-25LR-ADP CPAC-TR-100SR CPAC-TR-100LR

FAIL-OPEN NETWORK I/O MODULES (5000, 15000 and 23000, transceivers included)

SKU	CPAC-4-1C-BP-B	CPAC-2-10FSR-BP-B
		
Supported Models	5000, 15000, 23000	5600, 5800, 5900, 15000, 23000
Number of Ports	4	2
Port Types	RJ-45 (copper) 10/100/1000Base-T	SFP+ 10GBase-SR
Speed	1 Gbps	10 Gbps
Transceivers	NA	CPAC-TR-10SR

NETWORK TRANSCEIVER SPECIFICATION (1G Transceivers)

SKU	CPAC-TR-1T-B	CPAC-TR-1SX-B	CPAC-TR-1LX-B
			
Supported Models	5100 - 23900	5100 - 23900	5100 - 23900
Form Factor	SFP	SFP	SFP
Protocol	1000Base-T 1G Ethernet	1000Base-SX 1G Ethernet	1000Base-LX 1G Ethernet
Wavelength (nm)		850	1310
Connector	RJ-45	LC	LC
Distance (Max)	100m	300m (OM1) 550m (OM2)	10km
Supported Cable Type	Cat 5	multi-mode 62.5/125 µm Fiber (OM1) 50/125 µm Fiber (OM2)	Single mode/125 µm Fiber
Input Level (Receive Power) dBm	N/A	0 to -18dBm	0 to -19dBm
Output Level (Transmit Power) dBm	N/A	-2.5 to -9dBm	-3 to -9.5dBm
Matching I/O Module	CPAC-4-1F-B	CPAC-4-1F-B	CPAC-4-1F-B

NETWORK TRANSCEIVER SPECIFICATION (10G Transceivers)

SKU	CPAC-TR-10SR-B		CPAC-TR-10LR-B
			
Supported Models	5600 - 23900		5600 - 23900
Form Factor	SFP+		SFP+
Protocol	10GBASE-SR 10G		10GBASE-LR 10G
Wavelength (nm)	850		1310
Connector	LC		LC
Distance (Max)	1GbE 220m(OM1) 550m(OM3) >550m (OM3) >550m(OM4)	10GbE 26m(OM1) 82m(OM2) 300m(OM3) 400m(OM4)	10km
Supported Cable Type	multi-mode 62.5/125 µm Fiber(OM1) 50/125 µm Fiber(OM2) 50/125 µm Fiber(OM3) 50/125 µm Fiber(OM4)		Single Mode 9/125 µm Fiber
Input Level (Receive Power) dBm	+0.5 - 12.5dBm (1GbE) +0.5 - 13.5dBm (1GbE) +0.5 -11.1dBm (10GbE)	62.5 um MMF 50 um MMF 50 um MMF	-3 to -19dBm (1GbE mode) +0.5 to -12.6dBm (10GbE mode)
Output Level (Transmit Power) dBm	-1 to -9.5dBm (1GbE mode) -1 to -5dBm (10GbE mode)		-3 to -11dBm (1GbE mode) +0.5 to -8.2dBm (10GbE mode)
Matching I/O Modules	CPAC-2-10F-B, CPAC-4-10F-B		CPAC-2-10F-B, CPAC-4-10F-B

NETWORK TRANSCEIVER SPECIFICATION (40G Transceivers)

SKU	CPAC-TR-40SR-QSFP-300m	CPAC-TR-40LR-QSFP-10K	CPAC-TR-40SR-QSFP-BiDi
			
Supported Models	5800 - 23900	5800 - 23900	5800 – 23900
Form Factor	QSFP+	QSFP+	QSFP+
Protocol	40GBase-SR 40G	40GBase-LR 40G	40GBase-SR-BiDi 40G
Wavelength (nm)	850	1310	832, 918
Connector	MPO-12	LC	LC
Distance (Max)	300m (OM3) 400m (OM4)	10km	100m (OM3) 150m (OM4)
Supported Cable Type	Aqua: multi-mode 50/125 µm fiber (OM3) 50/125 µm Fiber(OM4)	Yellow: single mode 9/125 µm Fiber	Aqua: multi-mode 50/125 µm fiber (OM3) 50/125 µm Fiber(OM4)
Input Level (Receive Power) dBm	+4dBm to -11.1dBm	+3.5dBm to -11.5dBm	+5dBm to -9.1dBm
Output Level (Transmit Power) dBm	+0.5dBm to -7.5dBm	+2.3dBm to -7dBm	+5dBm to -4dBm
Matching I/O Module	CPAC-2-40F-B	CPAC-2-40F-B	CPAC-2-40F-B

NETWORK TRANSCEIVER SPECIFICATION (25G, 100G Transceivers)

SKU	CPAC-TR25SR-ADP	CPAC-TR-25LR-ADP	CPAC-TR-100SR	CPAC-TR-100LR
				
Supported Models	15400 - 23900	15400 - 23900	15400 – 23900	15400 – 23900
Form Factor	SFP28 with QSFP28 adaptor	SFP28 with QSFP28 adaptor	QSFP28	QSFP28
Protocol	25GBASE-SR 25G Ethernet	25GBASE-LR 25G Ethernet	100GBASE-SR4 100G Ethernet	100GBASE-LR4 100G Ethernet
Wavelength (nm)	850	1310	850	1310
Connector	LC	LC	MPO-12	LC
Distance (Max)	20m(OM2) 70m(OM3) 100m(OM4)	10km	70m(OM3) 100m(OM4)	10km
Supported Cable Type	50/125 µm Fiber(OM2) 50/125 µm Fiber(OM3) 50/125 µm Fiber(OM4)	Single Mode 9/125 µm Fiber	50/125 µm Fiber(OM3) 50/125 µm Fiber(OM4)	single mode 9/125 µm Fiber
Input Level (Receive Power) dBm	+3dBm to -11.dBm	+2dBm to -12dBm	+2.4dBm to -10.3dBm	+4.5dBm to -10.6dBm
Output Level (Transmit Power) dBm	+2.4dBm to -8.4dBm	+3dBm to -5dBm	+2.4dBm to -8.4dBm	+4.5dBm to -4.3dBm
Matching I/O Module	CPAC-2-100/25F	CPAC-2-100/25F	CPAC-2-100/25F	CPAC-2-100/25F

POWER SUPPLIES

Dual power supplies increase the overall reliability of the security appliance. In the dual power supply configuration an audible alarm occurs when one power supply fails. Power Supply status is also monitored via SNMP or in the GAiA Web UI.

POWER SUPPLY OPTIONS (5000, 15000 and 23000)

	3000	5100, 5200, 5400 ¹	5600, 5800, 5900	15000, 23000
Redundant Power Supply	NA	NA	Optional	Included
DC Power Supply	NA	Optional	Optional	Optional

¹ 5100, 5200, 5400 power supplies are not Field Replaceable Units (FRU)

POWER SUPPLY SPECIFICATION (5000, 15000 and 23000)

	5600, 5800	5900	15000	23000
AC SKU	CPAC-PSU-5600/5800	CPAC-PSU-AC-5900	CPAC-PSU-AC-15000	CPAC-PSU-AC-23000
DC SKU	CPAC-PSU-DC-5600/5800	CPAC-PSU-DC-5900	CPAC-PSU-DC-Dual-15000/23000	
AC Power Input	90 to 240V (47-63Hz)	90 to 240V (47-63Hz)	90 to 240V (47-63Hz)	90 to 240V (47-63Hz)
AC Input Current	5600: 0.75A 5800: 0.84A	5900: 1.38A	15400: 7.1A 15600: 7.1A	23500: 9.4A 23800: 9.4A
DC Input Current			-40.5V/24A -48V/19.2A, -60V/16.0A	-40.5V/24A -48V/19.2A, -60V/16.0A
Output Power	275W	275W	AC(550W), DC(800W)	800W

STORAGE

Redundant drives are configured in a RAID1 mirror increasing system reliability. RAID status monitoring is available via SNMP.

REDUNDANT STORAGE OPTIONS (5000, 15000 and 23000)

	3000	5100 – 5800	5900	15400	15600, 23000
HDD Options		1x 1TB		1x 1TB	2x 1TB
SSD Options ¹	1x 240GB	1x 240GB	1x 480GB	1x 480GB	2x 480GB
Redundant Drive	NA	NA	Optional	Optional	Included
RAID Setup			RAID1	RAID1	RAID1

¹ Local logging and standalone configuration (management and gateway) may not be supported for the SSD option, see sk113053

LIGHTS-OUT MANAGEMENT

Lights-Out Management (LOM) provides out-of-band remote management to remotely diagnose, start, restart and manage the security appliance from a remote location.

LIGHTS-OUT MANAGEMENT OPTIONS (5000, 15000 and 23000)

	3100, 3200	5100, 5200, 5400, 5600	5800, 5900, 15000, 23000
LOM	NA	Optional	Included

LIGHTS-OUT MANAGEMENT SPECIFICATION

SKU	Features
CPAC-LOM-B (5000-23000)	LOM/IPMI module with front 1 GbE RJ-45

MEMORY

Additional system memory increases connection capacity and improves the overall ability of the security appliance.

MEMORY OPTIONS (5000, 15000 and 23000)

	3100, 3200	5100, 5200	5400, 5600, 5800, 5900	15400	15600	23500	23800	23900
Default	8	8	8	8	16	16	32	48
HPP	NA	16	16	24	32	64	64	64
Maximum	NA	16	32	64	64	128	128	128

MEMORY SPECIFICATION (5000, 15000 and 23000)

Model	SKU	Start	Target	Modules
5100, 5200, 5400, 5600, 5800	CPAC-RAM8GB-5000	8	16	1x 8GB DDR3
	CPAC-RAM16GB-5000	16	32	2x 8GB DDR3
	CPAC-RAM24GB-5000	8	32	3x 8GB DDR3
5900	CPAC-RAM8GB-5900	8	16	3x 8GB ECC DDR4
	CPAC-RAM24GB-5900	8	32	3x 8GB ECC DDR4
	CPAC-RAM16GB-5900	16	32	2x 8GB ECC DDR4
15400	CPAC-RAM16GB-15400	8	24	2x 8GB ECC DDR4
	CPAC-RAM40GB-15400	24	64	5x 8GB ECC DDR4
	CPAC-RAM56GB-15400	8	64	7x 8GB ECC DDR4
15600	CPAC-RAM16GB-15600	16	32	2x 8GB ECC DDR4
	CPAC-RAM32GB-15600	32	64	4x 8GB ECC DDR4
	CPAC-RAM48GB-15600	16	64	6x 8GB ECC DDR4
23500	CPAC-RAM48GB-23500	16	64	6x 8GB ECC DDR4
	CPAC-RAM64GB-23500	64	128	8x 8GB ECC DDR4
	CPAC-RAM112GB-23500	16	128	14x 8GB ECC DDR4
23800	CPAC-RAM32GB-23800	32	64	4x 8GB ECC DDR4
	CPAC-RAM64GB-23800	64	128	8x 8GB ECC DDR4
	CPAC-RAM96GB-23800	32	128	12x 8GB ECC DDR4
23900	CPAC-RAM16GB-23900	48	64	2x 8GB ECC DDR4
	CPAC-RAM64GB-23900	64	128	8x 8GB ECC DDR4
	CPAC-RAM80GB-23900	48	128	10x 8GB ECC DDR4

RACK MOUNT OPTIONS

Slide rails provide simple installation (5-10 minutes) and easy maintenance access for 5000, 15000 and 23000 Security Appliances in a standard 19-inch (48.26 cm) rack (see specification EIA-310-D). A shelf rack mount kit is available for the 3100 and 3200. Slide rails are optional in the 5100 through the 5600 and included in the 5800 through the 23000.

RACK KIT SPECIFICATION (3000, 5000, 15000 and 23000)

	SKU	Depth
15000, 23000	CPAC-RAIL-L	22 in (55.9 cm) to 32 in (81.3 cm)
	CPAC-RAIL-EXT-L	24 in (61 cm) to 36 in (91.4 cm)
5000	CPAC-RAIL-5000	22 in (55.9 cm) to 32 in (81.3 cm)
	CPAC-RAIL-EXT-5000	24 in (61 cm) to 36 in (91.4 cm)
3100, 3200	CPAC-RM-DUAL-3000	Single/Dual 3000 1U Shelf Rack Mount