RUCKUS
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Ruckus ICX 7150 Switch Technical Specifications

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Contents

Ruckus ICX 7150 Switch Technical Specifications

This content highlights the features and specifications for the Ruckus ICX 7150 switch.

System specifications

System component	Description
Enclosure	1U; 19-inch rack-mountable; desktop-, wall-, or under-desk mountable
Power inlet	C14 for AC power
Power supplies	Integrated AC power supply for system and PoE power Dual modular power supplies for ICX7150-48ZP
Fans	Fanless devices • ICX 7150-C12P • ICX 7150-24 • ICX 7150-48 • ICX 7150-C10ZP • ICX 7150-C08P Two integrated fans per device. 150 W maximum PoE budget in fanless mode. • ICX 7150-24P • ICX 7150-48P • ICX 7150-24F Two modular fan trays and two modular power supplies, each of which has a fan • ICX 7150-48ZP Three integrated fans per device. Fanless mode is not supported. • ICX 7150-48PF
Cooling	Closed airflow • ICX 7150-C12P • ICX 7150-24 • ICX 7150-48 • ICX 7150-C10ZP • ICX 7150-C08P Side-to-back airflow • ICX 7150-24P • ICX 7150-48P • ICX 7150-48PF • ICX 7150-48ZP • ICX 7150-24F
System architecture	Edge Ethernet switches with full duplex switching and forwarding capabilities • 10/100/1000 Mbps RJ-45 downlink and uplink ports • 100/1000M/2.5 Gbps RJ-45 downlink ports (ICX7150-48ZP only)

System component	Description
	• PoE+ chipsets with two pair power up to Class 4 power levels of 30 W • UPoE/PoH chipsets with four pair power up to 90 W (ICX7150-48ZP only) • Optical SFP+ uplink and stacking ports

Ethernet

System component	Description
Ethernet ports	ICX 7150-48ZP: Sixteen 2.5G and thirty-two 1G Copper ports with eight SFP+ 1G/10-GbE optical stacking or uplink ports
	ICX 7150-C12P: Twelve RJ-45 GbE with 802.3at PoE+, two RJ-45 GbE uplink, two SFP+ 10-GbE uplink/stacking
	ICX 7150-24: Twenty-four RJ-45 GbE, two RJ-45 GbE uplink, four SFP+ 10-GbE uplink/stacking
	ICX 7150-24P: Twenty-four RJ-45 GbE with 802.3at PoE+, two RJ-45 GbE uplink, four SFP+ 10-GbE uplink/stacking
	ICX 7150-48: Forty-eight RJ-45 GbE, two RJ-45 GbE uplink, four SFP+ 10-GbE uplink/stacking
	ICX 7150-48P: Forty-eight RJ-45 GbE with 802.3at PoE+, two RJ-45 GbE uplink, four SFP+ 10-GbE uplink/stacking
	ICX 7150-48PF: Forty-eight RJ-45 GbE with 802.3at PoE+, two RJ-45 GbE uplink, four SFP+ 10-GbE uplink/stacking
	ICX7150-C08P: Eight 1-GbE ports, two SFP 1-GbE uplink
	ICX7150-C10ZP: Eight 1-GbE/2.5 G ports, 10 PoE ports, two RJ-45 1-GbE /2.5 GbE/5 GbE/10 GbE uplink, two SFP+ 1-GbE/10-GbE uplink/stacking
	ICX7150-24F: Twenty-four SFP ports, two RJ-45 100-Mb/1-GbE uplink, two SFP 1-GbE/10-GbE uplink/stacking
Management interface	One 10/100/1000 Mbps Ethernet, out-of-band management interface (RJ-45 port) per device
	One Type-C USB console port per device
	One RJ-45 console port per device
	NOTE ICX 7150-C08P does not have a management interface.

LEDs

System component	Description
System status LEDs	SYST: Bicolor LED (green/yellow) controlled by software to indicate the system status
	M/S: Bicolor LED (green/yellow) controlled by software to indicate master/slave status in stacking mode
	UPDATE: Bicolor LED (green/yellow) controlled by software to indicate the DHCP auto-configuration from DHCP server
	DIAG: Bicolor LED (green/yellow) controlled by software to indicate the system is in diagnostic mode
	CLD: Bicolor LED (green/yellow) controlled by software to indicate the connection to the cloud services platform
	PWR: Bicolor LED (green/yellow) indicates the internal power status

System component	Description
Port status mode selection LEDs (not enabled currently)	STAT: Bicolor LED (green/yellow) controlled by software to indicate link status
	SPD: Bicolor LED (green/yellow) controlled by software to indicate link speed
	(Stacking) ID: Port LED (green) to display stacking ID from 1 to 12
	USB: Bicolor LED (green/yellow) to indicate USB flash / Show Tech / file copy / boot status
	POE: Bicolor LED (green/yellow) controlled by software to indicate PoE/PoE+
Port status LEDs	RJ-45 link status LED: Indicates Ethernet link status and speed
	SFP/SFP+ status LED: Indicates link status and speed for SFP or SFP+ ports
	Out-of-band management port: Two single-color LEDS indicate out-of-band management port link status and speed

Other

System component	Description
STATUS MODE	Port status mode selection button
RESET	Reset button for hardware reset without power cycling. There is a hole in the front panel to allow access.
	NOTE Do not plug in the USB during factory reset.
USB port	Standard type-A USB connector for removable media
Console connectors	RJ-45 console connector
	USB console Type-C connector
RJ-45 connectors	RJ-45 connectors for GbE data ports

Weight and physical dimensions

The **Total weight** column includes the weight of the unit and the contents of the shipping carton.

Model	Height	Width	Depth	Unit weight	Total weight
ICX 7150-48ZP With one power supply and one fan	4.4 cm 1.73 in	44.0 cm 17.32 in	33.2 cm 13.1 in	6.246 kg 13.770 lb	8.282 kg 18.259 lb
ICX 7150-48ZP With two power supplies and two fans	4.4 cm 1.73 in	44.0 cm 17.32 in	33.2 cm 13.1 in	7.415 kg 16.347 lb	9.451 kg 20.836 lb
ICX 7150-C12P	4.4 cm 1.73 in	26.9 cm 10.59 in	21.3 cm 8.39 in	2.58 kg 5.69 lb	3.12 kg 6.88 lb
ICX 7150-24	4.4 cm 1.73 in	44.0 cm 17.32 in	28.0 cm 11.0 in	3.80 kg 8.38 lb	5.20 kg 11.46 lb
ICX 7150-24P	4.4 cm 1.73 in	44.0 cm 17.32 in	28.0 cm 11.0 in	4.93 kg 10.97 lb	6.35 kg 14.00 lb

Model	Height	Width	Depth	Unit weight	Total weight
ICX 7150-48	4.4 cm 1.73 in	44.0 cm 17.32 in	37.0 cm 14.6 in	4.82 kg 10.63 lb	6.65 kg 14.66 lb
ICX 7150-48P	4.37 cm 1.72 in	44.0 cm 17.32 in	37.0 cm 14.6 in	6.17 kg 13.60 lb	7.90 kg 17.42 lb
ICX 7150-48PF	4.37 cm 1.72 in	44.0 cm 17.32 in	37.0 cm 14.6 in	6.28 kg 13.85 lb	8.07 kg 17.79 lb
ICX 7150-C08P	4.34 cm 1.70 in	27 cm 10.63 in	21.3 cm 8.38 in	1.93 kg 4.26 lb	2.71 kg 5.98 lb
ICX 7150-C10ZP	4.3 4cm 1.70 in	30.4 cm 11.96 in	28 cm 11 in	3.57 kg 7.87 lb	4.3 kg 9.48 lb
ICX 7150-24F	4.37 cm 1.72 in	44.0 cm 17.32 in	28.0 cm 11.0 in	3.6 kg 7.92 lb	5.1 kg 11.22 lb

Environmental requirements

Condition	Operational	Non-operational
Ambient temperature	-5°C (cold start). 0°C to 45°C (23°F to 113°F) at sea level.[1], [2]	-25°C to 70°C (-13°F to 158°F)
Relative humidity (non-condensing)	5% to 95% at 45°C (113°F)	0% to 95% at 70°C (158°F)
Altitude (above sea level)	0 to 3,000 m (10,000 feet)	0 to 12,000 m (39,000 feet)
Shock	20 G, 11 ms, half-sine wave	33 G, 11 ms, half-sine wave
Vibration	1 G sine, 0.4 gms random, 5-500 Hz	2.4 G sine, 1.1 gms random, 5-500 Hz
Airflow	ICX 7150-48ZP: 40.36 CFM (Maximum), 14.6 CFM (Typical) ICX 7150-C12P: 0 CFM ICX 7150-24: 0 CFM ICX 7150-24P: 37.6 CFM (Maximum), 13.4 CFM (Typical) ICX 7150-48: 0 CFM ICX 7150-48P: 38.15 CFM (Maximum), 13.9 CFM (Typical) ICX 7150-48PF: 50.8 CFM (Maximum), 19.6 CFM (Typical) ICX 7150-24F: 15.5 CFM (Maximum) , 6.1 CFM (Typical)	N/A
Heat dissipation	Refer to Power Consumption specification sections	N/A
Operating noise	For all fanless ICX 7150 devices and devices in fanless mode: Less than 12 dBA	N/A

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[1] For the ICX 7150-C12P and ICX 7150-C08P, the maximum operating temperature is 40°C when under fully loaded PoE conditions or when installed using the long bracket (ICX7000-C12-RMK) under a fixed surface. The maximum operating temperature is 35°C when installed using the short bracket (ICX7000-C12-WMK) under a fixed surface.

[2] For the ICX7150-C10ZP, the maximum operating temperature is 40°C when under fully loaded PoE conditions. The maximum operating temperature is 35°C when installed in ceiling mount condition.

Condition	Operational	Non-operational
	ICX 7150-24P, ICX 7150-48P, and ICX 7150-48ZP with fans running: Maximum of 52 dBA ICX 7150-48PF with fans running: Maximum of 48 dBA (fanless mode is not supported) ICX7150-24F: Maximum 40 dBA	

Power supply specifications (per PSU)

All the Ruckus ICX 7150 power supply units (PSUs) are fixed and internal to the device. All the PSUs use a C14 inlet and connect to standard AC power.

Device	Maximum output power rating (DC)	Input voltage	Input line frequency	Maximum input current	Input line protection	Maximum inrush current
ICX 7150-48ZP	920 W	100 - 240 VAC (nominal) 90 - 264 VAC (range)	50/60 Hz (nominal) 47 - 63 Hz (range)	13 A (rms)	Line fused	75 A at 230 VAC Cold start @ 25°C
ICX 7150-C12P	150 W	100 - 240 VAC (nominal) 90 - 264 VAC (range)	50/60 Hz (nominal) 47 - 63 Hz (range)	5 A (rms)	Line fused	100 A at 230 VAC Cold start @ 25°C
ICX 7150-24	36 W	100 - 240 VAC (nominal) 90 - 264 VAC (range)	50/60 Hz (nominal) 47 - 63 Hz (range)	0.9 A (rms)	Line fused	80 A at 230 VAC Cold start @ 25°C
ICX 7150-24P	525 W	100 - 240 VAC (nominal) 90 - 264 VAC (range)	50/60 Hz (nominal) 47 - 63 Hz (range)	10 A (rms)	Line fused	60 A at 230 VAC Cold start @ 25°C
ICX 7150-48	65 W	100 - 240 VAC (nominal) 90 - 264 VAC (range)	50/60 Hz (nominal) 47 - 63 Hz (range)	1.5 A (rms)	Line fused	80 A at 230 VAC Cold start @ 25°C
ICX 7150-48P	525 W	100 - 240 VAC (nominal) 90 - 264 VAC (range)	50/60 Hz (nominal) 47 - 63 Hz (range)	10 A (rms)	Line fused	60 A at 230 VAC Cold start @ 25°C
ICX 7150-48PF	880 W	100 - 240 VAC (nominal) 90 - 264 VAC	50/60 Hz (nominal) 47 - 63 Hz	15 A (rms)	Line fused	120 A at 230 VAC Cold start @ 25°C

Device	Maximum output power rating (DC)	Input voltage (range)	Input line frequency (range)	Maximum input current	Input line protection	Maximum inrush current
ICX 7150-C08P	150 W	100 - 240 VAC (nominal) 90 - 264 VAC (range)	50/60 Hz (nominal) 47 - 63 Hz (range)	2.2 A (rms)	Line fused	65 A at 115 VAC 130 A at 230 VAC Cold start @ 25°C
ICX 7150-C10ZP	300 W	100 - 240 VAC (nominal) 90 - 264 VAC (range)	50/60 Hz (nominal) 47 - 63 Hz (range)	4 A (rms)	Line fused	30 A at 115 VAC 60 A at 230 VAC Cold start @ 25°C
ICX 7150-24F	100 W	100 - 240 VAC (nominal) 90 - 264 VAC (range)	50/60 Hz (nominal) 47 - 63 Hz (range)	2 A (rms)	Line fused	65 A at 115 VAC 130 A at 230 VAC Cold start @ 25°C

Power consumption (idle configuration)

Idle: No optics or connections to ports installed and system booted up. Fans at nominal speed.

Model name	@100 VAC input	@200 VAC input	@-48 VDC input	Minimum number of power supplies	Notes
ICX 7150-48ZP With one power supply and one fan	0.82 A 89 W 303.68 BTU/hr	0.5 A 85.89 W 293.07 BTU/hr	N/A	1	All ports down, no optics or cables connected. No Load (traffic)
ICX 7150-48ZP With two power supplies and two fans	1.14 A 108 W 368.51 BTU/hr	0.7 A 105.4 W 359.64 BTU/hr	N/A	2	All ports down, no optics or cables connected. No Load (traffic)
ICX 7150-C12P	0.22 A 20.10 W 68.60 BTU/hr	0.16 A 19.5 W 68.09 BTU/hr	N/A	1	All ports down, no optics or cables connected. No Load (traffic)
ICX 7150-24	0.25 A 13.88 W 47.37 BTU/hr	0.16 A 13.53 W 46.18 BTU/hr	N/A	1	All ports down, no optics or cables connected. No Load (traffic)
ICX 7150-24P	0.35 A 31.58 W 107.79 BTU/hr	0.29 A 30.64 W 104.58 BTU/hr	N/A	1	All ports down, no optics or cables connected. No Load (traffic)
ICX 7150-48	0.46 A 24.19 W 82.56 BTU/hr	0.28 A 23.55 W 80.38 BTU/hr	N/A	1	All ports down, no optics or cables connected.

Model name	@100 VAC input	@200 VAC input	@-48 VDC input	Minimum number of power supplies	Notes
					No Load (traffic)
ICX 7150-48P	0.50 A 46.90 W 160.07 BTU/hr	0.35 A 46.80 W 159.73 BTU/hr	N/A	1	All ports down, no optics or cables connected. No Load (traffic)
ICX 7150-48PF	0.53 A 49.90 W 170.31 BTU/hr	0.37 A 49.33 W 168.37 BTU/hr	N/A	1	All ports down, no optics or cables connected. No Load (traffic) Fans always running.

Model name	@100 VAC input	@200 VAC input	Minimum number of power supplies	Notes
ICX 7150-C08P	0.27 A 13.1 W 44.67 BTU/hr	0.18 A 13.9 W 47.4 BTU/hr	1	All ports are down, no optics or cables connected. No load (traffic).
ICX 7150-C10ZP	0.3 A 28.5 W 97.19 BTU/hr	0.23 A 28.5 W 97.19 BTU/hr	1	All ports are down, no optics or cables connected. No load (traffic).
ICX 7150-24F	0.33 A 17.2 W 58.65 BTU/hr	0.21 A 17.6W 60.02 BTU/hr	1	All ports are down, no optics or cables connected. No load (traffic). Fans always running.

Power consumption (typical configuration)

Typical: 10% traffic rate on all ports with 64-byte packet size and random payload at room temperature. All ports fully configured. Fans at nominal speed.

Model name	@100 VAC input	@200 VAC input	@-48 VDC input	Minimum number of power supplies	Notes
ICX 7150-48ZP With one power supply and one fan	9.29 A 917 W 3218.935 BTU/hr	4.41 A 870 W 2968.56 BTU/hr	N/A	1	All 2.5G and 1G ports and eight 10G ports are linked UP 10% traffic 100% PoE Load
ICX 7150-48ZP With two power supplies and two fans	18.29 A 1804 W 6155.5 BTU/hr	8.63 A 1868 W 5752,87 BTU/hr	N/A	2	All 2.5G and 1G ports and eight 10G ports are linked UP 10% traffic 100% PoE Load
ICX 7150-C12P	1.59 A 157.12 W	0.80 A 153.31 W	N/A	1	12 1-GbE and 2 10-GbE ports are linked UP ONLY.

Model name	@100 VAC input	@200 VAC input	@-48 VDC input	Minimum number of power supplies	Notes
	536.26 BTU/hr	523.26 BTU/hr			10% traffic. 100% PoE Load
ICX 7150-24	0.42 A 23.87 W 81.47 BTU/hr	0.26 A 23.37 W 76.76 BTU/hr	N/A	1	24 1-GbE and 4 10-GbE ports are linked UP ONLY. 10% traffic.
ICX 7150-24P	4.57 A 455.39 W 1554.28 BTU/hr	2.24 A 438.75 W 1497.49 BTU/hr	N/A	1	24 1-GbE and 4 10-GbE ports are linked UP ONLY. 10% traffic. 100% PoE Load
ICX 7150-48	0.74 A 38.49 W 131.37 BTU/hr	0.45 A 39.02 W 133.18 BTU/hr	N/A	1	48 1-GbE and 4 10-GbE ports are linked UP ONLY. 10% traffic.
ICX 7150-48P	4.88 A 476.30 W 1625.65 BTU/hr	2.35 A 460.60 W 1572.06 BTU/hr	N/A	1	48 1-GbE and 4 10-GbE ports are linked UP ONLY. 10% traffic. 100% PoE Load
ICX 7150-48PF	9.56 A 922.0 W 3146.86 BTU/hr	4.45 A 868.54 W 2964.40 BTU/hr	N/A	1	48 1-GbE and 4 10-GbE ports are linked UP ONLY. 10% traffic. 100% PoE Load

Model name	@100 VAC input	@200 VAC input	Minimum number of power supplies	Notes
ICX7150-C08P	0.88 A 87 W 296.67 BTU/hr	0.49 A 90.1 W 307.24 BTU/hr	1	All 1G ports are linked UP 10% traffic 100% PoE load
ICX7150-C10ZP	3.10 A 308.4 W 1051.64 BTU/hr	1.53 A 300.04 W 1024.26 BTU/hr	1	All 2.5G and four 10G ports are linked UP 10% traffic 100% PoE load
ICX7150-24F	0.41 A 39.6 W 135.04 BTU/hr	0.26 A 42.2 W 143.9 BTU/hr	1	All 1G and four 10G ports linked UP 10% traffic Fans always running

Power consumption (maximum configuration)

Maximum: All ports fully configured with connection and traffic at maximum throughput. Fans at high speed.

Model name	@100 VAC input	@200 VAC input	@-48 VDC input	Minimum number of power supplies	Notes
ICX 7150-48ZP With one power supply and one fan	9.46 A 932 W 3180.12 BTU/hr	4.54 A 888 W 3029.98 BTU/hr	N/A	1	All 2.5G and 1G ports and eight 10G ports are linked UP 100% traffic 100% PoE Load Fan at high speed
ICX 7150-48ZP With two power supplies and two fans	18.66 A 1841 W 6281.75 BTU/hr	8.8 A 1720 W 5868.88 BTU/hr	N/A	2	All 2.5G and 1G ports and eight 10G ports are linked UP 100% traffic 100% PoE Load Fans at high speed
ICX 7150-C12P	1.59 A 157.21 W 536.57 BTU/hr	0.80 A 153.39 W 523.53 BTU/hr	N/A	1	12 1-GbE and 2 10-GbE ports are linked UP ONLY. 100% traffic. 100% PoE Load
ICX 7150-24	0.42 A 23.96 W 81.78 BTU/hr	0.27 A 24.19 W 82.56 BTU/hr	N/A	1	24 1-GbE and 4 10-GbE ports are linked UP ONLY. 100% traffic.
ICX 7150-24P	4.74 A 471.85 W 1610.46 BTU/hr	2.32 A 454.62 W 1551.65 BTU/hr	N/A	1	24 1-GbE and 4 10-GbE ports are linked UP ONLY. 100% traffic. 100% PoE Load
ICX 7150-48	0.74 A 38.78 W 132.36 BTU/hr	0.46 A 39.14 W 133.59 BTU/hr	N/A	1	48 1-GbE and 4 10-GbE ports are linked UP ONLY. 100% traffic.
ICX 7150-48P	5.03 A 491.32 W 1676.91 BTU/hr	2.42 A 475.0 W 1621.21 BTU/hr	N/A	1	48 1-GbE and 4 10-GbE ports are linked UP ONLY. 10% traffic. 100% PoE Load
ICX 7150-48PF	9.82 A 949.33 W 3240.14 BTU/hr	4.57 A 893.30 W 3048.90 BTU/hr	N/A	1	48 1-GbE and 4 10-GbE ports are linked UP ONLY. 10% traffic. 100% PoE Load

Model name	@100 VAC input	@200 VAC input	Minimum number of power supplies	Notes
ICX7150-C08P	0.88 A 87.1 W	0.49 A 90.2 W	1	All 1G ports are linked UP 100% traffic

Model name	@100 VAC input	@200 VAC input	Minimum number of power supplies	Notes
	297.01 BTU/hr	307.58 BTU/hr		
ICX7150-C10ZP	3.1 A 309.4 W 1055.05 BTU/hr	1.53 A 301.4 W 1027.77 BTU/hr	1	All 2.5 ports and four 10G ports are linked UP 100% traffic
ICX7150-24F	0.44 A 42.5 W 144.93 BTU/hr	0.28 A 45.9 W 156.52 BTU/hr	1	All 1G ports and four 10G ports are linked UP 100% traffic Fan always running

Data port specifications (Ethernet)

NOTE
The ICX 7150 10-GbE ports provide both active and passive cable support.

Model	Port type	Number of ports	Description
ICX 7150-48ZP	1 GbE (copper)	48 downlink	RJ-45 10/100/1000 Mbps ports
	2.5 GbE (copper)	16 downlink	RJ-45 100/1000 M/2.5 Gbps ports
	1/10 GbE (optical)	4 uplink and 4 stacking	SFP+ ports
ICX 7150-C12P	GbE (copper)	12 downlink + 2 uplink	RJ-45 10/100/1000 Mbps ports
	10 GbE (optical)	2 uplink or stacking	SFP+ ports
ICX 7150-24	GbE (copper)	24 downlink + 2 uplink	RJ-45 10/100/1000 Mbps ports
	10 GbE (optical)	4 uplink or stacking	SFP+ ports
ICX 7150-24P	GbE (copper)	24 downlink + 2 uplink	RJ-45 10/100/1000 Mbps ports
	10 GbE (optical)	4 uplink or stacking	SFP+ ports
ICX 7150-48	GbE (copper)	48 downlink + 2 uplink	RJ-45 10/100/1000 Mbps ports
	10 GbE (optical)	4 uplink or stacking	SFP+ ports
ICX 7150-48P	GbE (copper)	48 downlink + 2 uplink	RJ-45 10/100/1000 Mbps ports
	10 GbE (optical)	4 uplink or stacking	SFP+ ports
ICX 7150-48PF	GbE (copper)	48 downlink + 2 uplink	RJ-45 10/100/1000 Mbps ports
	10 GbE (optical)	4 uplink or stacking	SFP+ ports
ICX7150-C08P	1 GbE (copper)	8 downlink+2 uplink	RJ-45 1 Gbps ports
ICX7150-C10ZP	1 GbE (copper)	8 downlink and 2 uplink or stacking	RJ-45 1/2.5/5/10 Gbps ports
ICX7150-24F	1 GbE (optical)	24 downlink +6 uplink or stacking	SFP Ports

Serial port specifications (pinout RJ-45)

Pin	Signal	Description
1	Not supported	N/A

Pin	Signal	Description
2	Not supported	N/A
3	UART1_TXD	Transmit data
4	GND	Logic ground
5	GND	Logic ground
6	UART1_RXD	Receive data
7	Not supported	N/A
8	Not supported	N/A

Serial port specifications (protocol)

Parameter	Value
Baud	9600 bps
Data bits	8
Parity	None
Stop bits	1
Flow control	None

Memory specifications

Memory	Type	Size
Boot Flash	SPI NOR Flash	2 x 8 MB
Compact Flash	NAND Fash (MLC)	2 GB
Main Memory	DDR4 SDRAM (not ECC capable)	1 GB

Regulatory compliance (EMC)

- FCC Part 15, Subpart B
- EN 55024
- EM 55032 (CE Mark) (Class A)
- ICES-003
- VCCI
- EN 300 386
- CNS 13438
- KN 32
- KN 35
- TCVN 7189
- EN 61000-3-2
- EN 61000-3-3

- GB 9254
- CISPR 32
- 2014/30/EU
- AS/NZS CISPR32 (Australia) (Class A)

Regulatory compliance (safety)

- EN/UL 60825
- EN/UL/CSA/IEC 60950-1
- GB 4943.1
- CNS 14336-1
- 2014/35/EU

Regulatory compliance (environmental)

- 2011/65/EU - Restriction of the use of certain hazardous substance in electrical and electronic equipment (EU RoHS).
- 2012/19/EU - Waste electrical and electronic equipment (EU WEEE).
- 94/62/EC - packaging and packaging waste (EU).
- 2006/66/EC - batteries and accumulators and waste batteries and accumulators (EU battery directive).
- 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (EU REACH).
- Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 - U.S. Conflict Minerals.
- 30/2011/TT-BCT - Vietnam circular.
- SJ/T 11363-2006 Requirements for Concentration Limits for Certain Hazardous Substances in EIPs (China).
- SJ/T 11364-2006 Marking for the Control of Pollution Caused by EIPs (China).