

Technical Specifications

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Technical Specifications

This appendix provides router and modem information for the IR1101 series.

Complete specifications for the IR1101 series can be found in the marketing data sheet.

Note Complete Regulatory Compliance and Safety Information is found online.

Router Specifications

Caution Operating the router outside of the limits specified is not supported.

IR1101 Base Unit

The following table lists the Base Unit specifications:

Table 1: Cisco IR1101 Specifications

Description	Design Specification
Dimensions	Inches: 2.3 (H) x 5.2 (W) x 4.9 (D) Millimeters: 58.4 (H) x 132.0 (W) x 124.5 (D)
Weight	2.25 lbs.

Description	Design Specification
Ingress Protection Rating	IP 30
Humidity	Non-condensing Relative Humidity: 5% to 95%
Standard Safety Certifications	UL 60950-1, 2nd edition; CAN/CSA C22.2 No. 60950-1, 2nd edition, EN 60950-1, 2nd edition; CB to IEC 60950-1, 2nd edition with all group differences and national deviations.
Operating Temperature and Altitude on the Base IR1101 with P-LTE-xx and P-LTE-xxx Pluggables using WP7600 Series Modems. **Note** See Modem Specifications, on page 3 for the EM74XX Series Modems. **Note** Please see Modem Support for Cisco P-LTE Pluggable Product IDs (PIDs) and corresponding modem series numbers.	-40° to 140°F (-40° to 60°C) in a sealed NEMA cabinet with no airflow -40° to 158°F (-40° to 70°C) in a vented cabinet with 40 LFM of air -40° to 167°F (-40° to 75°C) in a forced air enclosure with 200 LFM of air (type tested at +85°C for 16 hours). **Note** This product has been safety certified up to 60°C maximum ambient.-500 to 5,000 feet. Derate max operating temperature 1.5°C per 1000 feet.
Input Voltage	Nominal voltage: 12V to 48V DC Min/Max voltage: 9.6V to 60V DC input
Typical Current	12V - 0.72A 24V - 0.36A 59.8V - 0.17A
Typical/Maximum Power Consumption	Without LTE Pluggable: Typical 7.7W, Maximum 10W. With LTE Pluggable: Typical 10W, Maximum 13W.

IRM-1100 Expansion Unit

The following table lists the Expansion Unit specifications:

Table 2: Cisco IRM-1100 Specifications

Description	Design Specification
Dimensions	Inches: 1.3 (H) x 5.2 (W) x 4.9 (D) Millimeters: 33.0 (H) x 132.0 (W) x 124.5 (D)
Weight	1.6 lbs.
Ingress Protection Rating	IP 30
Humidity	Non-condensing Relative Humidity: 5% to 95%

Description	Design Specification
Standard Safety Certifications	UL 60950-1, 2nd edition; CAN/CSA C22.2 No. 60950-1, 2nd edition, EN 60950-1, 2nd edition; CB to IEC 60950-1, 2nd edition with all group differences and national deviations.
Operating Temperature and Altitude on the Expansion IRM-1100 with P-LTE-xx and P-LTE-xxx Pluggables utilizing WP7600 Series Modems. **Note** See Modem Specifications, on page 3 for the EM74XX Series Modems.	-40° to 140°F (-40° to 60°C) in a sealed NEMA cabinet with no airflow -40° to 158°F (-40° to 70°C) in a vented cabinet with 40 LFM of air -40° to 167°F (-40° to 75°C) in a forced air enclosure with 200 LFM of air (type tested at +85°C for 16 hours) **Note** This product has been safety certified up to 60°C maximum ambient.-500 to 5,000 feet. Derate max operating temperature 1.5°C per 1000 feet.

IRM-1100-4A2T Expansion Unit

The following table lists the Expansion Unit specifications:

Table 3: Cisco IRM-1100-4A2T Specifications

Description	Design Specification
Dimensions	13.3cm W x 12.35cm L x 6.0cm H
Weight	1.6 lbs.
Ingress Protection Rating	IP30 Chassis. Class A EMC or better.
Humidity	Non-condensing Relative Humidity: 5% to 95%
Standard Safety Certifications	UL 60950-1, 2nd edition; CAN/CSA C22.2 No. 60950-1, 2nd edition, EN 60950-1, 2nd edition; CB to IEC 60950-1, 2nd edition with all group differences and national deviations.
Operating Temperature and Altitude	Industrial temperature (-40C to +85C internal component temperature range) -40C to +60C operating temperature (outside ambient) 5Kft altitude

Modem Specifications

The EM74XX series modems have different performance numbers than the WP7600 series modems do. The EM74XX series will experience reduced (throttled) performance in conditions where the ambient temperature reaches high levels. Refer to the following table for details on temperature/airflow and performance throughput.

Table 4: Specifications for the IR1101 and IRM-1100 with EM74XX Series Modems and P-LTEA-LA and P-LTEA-EA modules

Maximum Ambient Temperature (C/F)	Air Flow (LFM)	Hardware	Throughput Performance
50°/122°	0	IR1101	Normal
60°/140°	0	IR1101	Throttled
60°/140°	40	IR1101	Throttled
65°/149°	200	IR1101	Throttled
50°/122°	0	IR1101 plus IRM-1100	Normal
55°/131°	40	IR1101 plus IRM-1100	Normal
60°/141°	200	IR1101 plus IRM-1100	Normal

Table 5: Specifications for the IR1101 and LM960A18 modem, P-LTEAP18-GL pluggable module

Maximum Ambient Temp (°C/°F)	Air Flow (LFM)	Chassis Hardware	LTE Throughput Performance
50°/122°	0	IR1101	Normal
55°/131°	0	IR1101	LTE Uplink throttled
60°/140°	0	IR1101	LTE Uplink (UL) throttled, and UL RF transmit power reduced on 50% of LTE frames. Uplink communication range reduced on 50% of LTE frames.
65°/149°	0	IR1101	Same as 60C, 0 LFM and downlink (DL) C/A carrier aggregation is disabled.
70°/158°	40	IR1101	Same as 65C, 0 LFM

Table 6: Specifications for the IR1101 and IRM-1100 with EM74XX Series Modems and P-LTEA7-XX modules

MaximumAmbient Temperature (C/F)	AirFlow (LFM)	Hardware	ThroughputPerformance
60℃/140℉	0	IR1101 plus IRM-1100	Normal
65℃/149℉	40	IR1101 plus IRM-1100	Throttled
70℃/158℉	200	IR1101 plus IRM-1100	Throttled

The EM9293 modems will experience reduced (throttled) performance in conditions where the ambient temperature reaches high levels. Refer to the following table for details on temperature/airflow and performance throughput.

Table 7: Specifications for the IR1101 and IRM-1100 with EM9293 Modems and P-5GS6-R16SA-GL modules

MaximumAmbient Temperature (C/F)	AirFlow (LFM)	Hardware	ThroughputPerformance
50℃/122℉	0	IR1101 plus IRM-1100	Normal
60℃/140℉	40	IR1101 plus IRM-1100	Throttled
65℃/149℉	200	IR1101 plus IRM-1100	Throttled