

Data Sheet

MC400 Modular Modem

MSRP: \$708

MC400 Modular Modems allow MC400-capable branch, mobile, and IoT routers to be easily field upgraded with the most recent industry-leading cellular capabilities. The MC400 Modular Modems combine enterprise reliability with industry leading performance. Available modems include LTE Advanced Cat 6 or LTE Advanced Pro Cat 18 for fast robust connections.

Notable Features

- Greater revenue and cost-saving opportunities with the ability to run advanced bandwidth-intensive applications.
- Better return on investment with the capability to upgrade to the latest modems without replacing the original hardware.
- Higher availability by installing a second modem for failover connectivity.
- Lower data plan costs by automatically switching to the second modem/SIM when the data plan cap on the primary modem/SIM has been reached.
- Certified versions are available for public safety networks worldwide.

Hardware Specifications

The following features are delivered through the hardware.

ENVIRONMENTAL		Shock/ Vibration/ Humidity		
Temperature	-30 °C to 70 °C (-22 °F to 158 °F) operational -40 °C to 85 °C (-40 °F to 185 °F) storage	Compliant with MIL STD 810G and SAEJ1455 when inserted in an IBR1700 router or a COR Extensibility Dock attached to an IBR900 router.		
Humidity	Operating: 5% to 95% Storage: 5% to 95%	Materials		
		WEEE, RoHS, REACH, California Prop 65		
POWER		COMPATIBILITY		
Required	N/A	Supported Endpoints		
PHYSICAL		MC400LP5	MC400LP6	MC400-1200M-B
Size	93x 70 x 13 mm (3.7 x 2.8 x 0.5 in)	— AER1600/1650	— AER1600/1650	— AER1600
Weight	.104 kg (3.7 oz)	— CBA850	— CBA850	— AER2200
CERTIFICATIONS		— IBR600C [†]	— IBR600C [†]	— CBA850
Safety	UL/cUL, CB Scheme, EN 60950-1, EN 62368-1	— IBR900 [†]	— IBR900 [†]	— IBR1700
			— E300	— IBR900 [†]
			— E3000	— E300
				— E3000
				— R1900 ^{††}

[†] Requires a COR Extensibility Dock.
^{††} Requires an RX30-MC Managed Accessory.

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For More Information, Contact:



www.pwbts.net
281-667-0404





DATA SHEET ■ MC400 MODULAR MODEM



Enterprise-Class Modem Specifications

SPECIFICATION	LP5	LP6
Technology	LTE Cat 6 LTE Advanced (3GPP Rel. 11)	LTE Cat 6 Advanced
Fallback	WSCMA/DC-HSPA+	WSCMA/DC-HSPA+
Carrier Aggregation	Up to 2 x CA uplink Refer to the Modem Carrier Aggregations article.	Up to 2 x CA uplink Refer to the Modem Carrier Aggregations article.
Peak Downlink Rates	LTE: 300 Mbps DC-HSPA+: 42.2 Mbps	LTE: 300 Mbps DC-HSPA+: 42.2 Mbps
Peak Uplink Rates	LTE: 50 Mbps DC-HSPA+: 5.76 Mbps	LTE: 50 Mbps DC-HSPA+: 5.76 Mbps
MIMO	4x4 MIMOL	2x2 MIMO
QAM	Up to 64	Up to 64
LTE Bands	LTE FDD — B1, B3, B5, B7, B8, B11, B18, B19, B21, B28, B38, B39, B40, B41 LTE FDD — B38, B39, B40, B41	LTE FDD — B1, B2, B3, B4, B5, B7, B8, B12, B13, B20, B25, B26, B29, B30, B41
WCDMA Bands	B1, B5, B6, B8, B9, B19	B1, B2, B3, B4, B5, B8
Power	LTE 23 dBm ± 1, DC-HSPA+ 23 dBm ± 1 (typical conducted)	LTE 23 dBm ± 1; DC-HSPA+ 23 dBm ± 1 (typical conducted)
Antennas	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 4, included)	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 2, included)
GNSS/GPS	Active GPS	Active GPS
SMS	Yes	Yes
Regulatory	CE (EU), RCM (AU/NZ)	FCC (U.S.), IC (Canada), CE (EU), RCM (AU/NZ)
Telecom	GCF (Worldwide)	PTCRB (U.S., Canada), GCF (Worldwide)
Required Carrier Certifications*	See note [†]	AT&T, Verizon, Sprint, Sprint Curiosity™ IoT [†]
Public Safety Network Certifications	N/A	Verizon Frontline
Private LTE	N/A	N/A
Modem Interface	USB Type A	USB Type A

[†] Cellular carriers and operators throughout the world may only require telecom industry certifications, like PTCRB or GCF, to operate on their network. Some carriers require additional testing and approval, beyond telecom certifications. A carrier listed in the approvals section means Cradlepoint completed additional testing and acquired technical approval for that given carrier. Any carrier not listed may not require additional testing or approval beyond telecom industry certifications to operate on their network.

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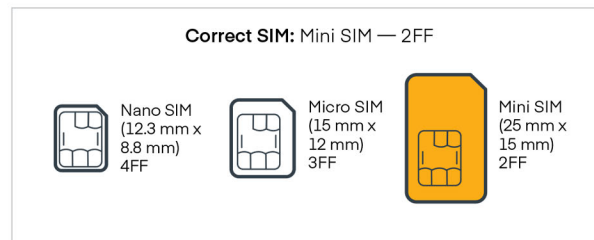
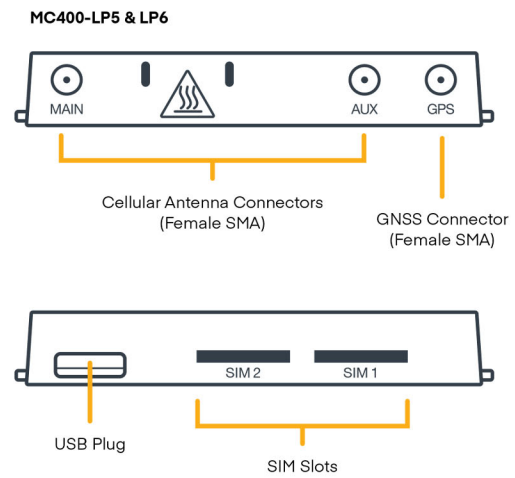
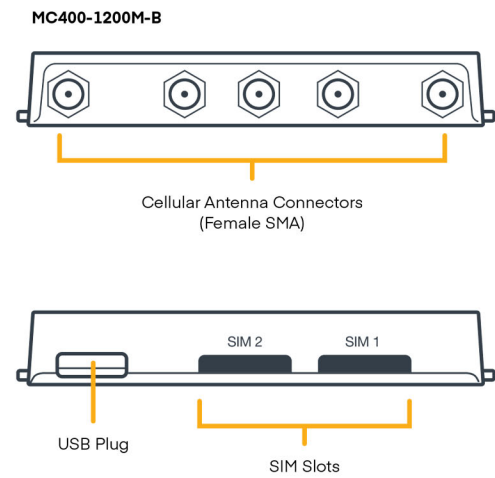
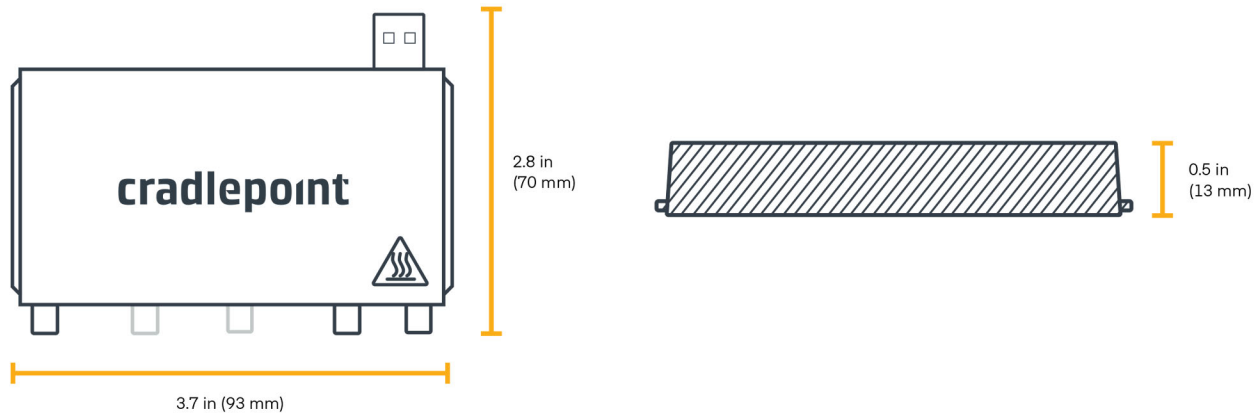
Enterprise-Class Modem Specifications

SPECIFICATION	MC400-1200M-B
Technology	Cat 18 LTE Advanced Pro (3GPP Rel. 12) <ul style="list-style-type: none"> — Dual SIM slots, 2FF form factor — SIM-based auto-carrier selection
Fallback	WCDMA/DC-HSPA+
Carrier Aggregation	Up to 5CA downlink, 2CA uplink Refer to the Modem Carrier Aggregations article.
Peak Downlink Rates	LTE: 1.2 Gbps DC-HSPA+: 42.2 Mbps
Peak Uplink Rates	LTE: 150 Mbps DC-HSPA+: 5.76 Mbps
MIMO	4x4 MIMO
QAM	Up to 256
LTE Bands	LTE FDD <ul style="list-style-type: none"> — B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B66, B71 LTE TDD <ul style="list-style-type: none"> — B38, B39, B40, B41, B42, B43, B46, B48
5G NR Bands:	N/A
WCDMA Bands	B1, B2, B4, B5, B8, B9, B19
Power	LTE 23 dBm ± 1, DC-HSPA+ 23 dBm ± 1 (typical conducted)
Antennas	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 4, included)
GNSS/GPS	Active GPS
SMS	Yes
Regulatory	FCC (U.S.), IC (Canada), CE (EU), ESN
Telecom	PTCRB (U.S., Canada), GCF (Worldwide)
Required Carrier Certifications*	AT&T, Verizon†
Public Safety Network Certifications	Verison Frontline, FirstNet Ready™ (including Band 14)
Private LTE	Yes, includes FCC Part 96 (CBRS Band 48)

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Hardware

Physical Measurements



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DATA SHEET ■ MC400 MODULAR MODEM

Ordering Guide

The MC400 Modular Modem is an accessory for Cradlepoint routers and adapters that have an expansion slot to accept a modular modem. Activation and use of the MC400 Modular Modem requires a Cradlepoint endpoint that is licensed to a NetCloud Service Plan.

For details on the features available to a licensed Cradlepoint router or adapter by service plan, refer to the summary on the [NetCloud Service webpage](#) and the detail in the NetCloud Service Features document.

For more details on the MC400 Modular Modem, see below.

NetCloud Packages & Plans

REGION	DESCRIPTION	PART NUMBER
North America: U.S. & Canada	LTE Advanced (Cat 6) modem compatible with AER1600/1650, AER2100, AER3100/3150, CBA850; COR Extensibility Dock and the IBR900, IBR600, IBR600B, or IBR600C — Includes 2 Cellular Antennas, Black, 700 MHz - 2.7 GHz, SMA, 160 mm	End of Sale
	LTE Advanced (Cat 6) modem for E300/E3000 Enterprise Branch Routers — Includes 2 Cellular Antennas, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm	End of Sale
	LTE Advanced Pro (1200 Mbps) modem upgrade for Branch, compatible with AER1600 and AER2100 — Includes 4 Cellular Antennas, Black, 700 MHz - 2.7 GHz, SMA, 160 mm	End of Sale
	LTE Advanced Pro (1200 Mbps) modem upgrade for LTE Branch Adapter, compatible with CBA850 — Includes 4 Cellular Antennas, White, 700 MHz - 2.7 GHz, SMA, 160 mm	BB-MC400-1200M-B
	LTE Advanced Pro (1200 Mbps) modem upgrade for Mobile, compatible with IBR1700 and COR Extensibility Dock	MA-MC400-1200M-B
	LTE Advanced Pro (1200 Mbps) modem upgrade for E300/E3000 Enterprise Branch Routers — Includes 4 Cellular Antennas, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm	BF-MC400-1200M-B 170801-000
United States: Federal Government	LTE Advanced Pro (1200 Mbps) modem upgrade for Mobile. Includes IBR1700 & COR Dock doors, no antennas	TAA-MA-MC400-1200M-B
	LTE Advanced Pro (1200 Mbps) modem upgrade for E300/E3000 Enterprise Branch Routers with doors & 4 charcoal antennas	TAA-BF-MC400-1200M-B
	Cellular Antenna, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm	TAA-170801-000

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REGION	DESCRIPTION	PART NUMBER
Europe: European Union & United Kingdom	LTE Advanced (Cat 6) modem, compatible with AER1600/1650, AER2100, AER3100/3150, CBA850; COR Extensibility Dock and the IBR900, IBR600, IBR600B, or IBR600C — Includes 2 Cellular Antennas, Black, 700 MHz - 2.7 GHz, SMA, 160 mm	End of Sale
	LTE Advanced (Cat 6) modem for E300/E3000 Enterprise Branch Routers — Includes 2 Cellular Antennas, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm	End of Sale
	LTE Advanced Pro (1200 Mbps) modem upgrade for Branch, compatible with AER1600 and AER2100 — Includes 4 Cellular Antennas, Black, 700 MHz - 2.7 GHz, SMA, 160 mm	End of Sale
	LTE Advanced Pro (1200 Mbps) modem upgrade for LTE Branch Adapter, compatible with CBA850 — Includes 4 Cellular Antennas, White, 700 MHz - 2.7 GHz, SMA, 160 mm	BB-MC400-1200M-B
	LTE Advanced Pro (1200 Mbps) modem upgrade for Mobile, compatible with IBR1700 and COR Extensibility Dock	MA-MC400-1200M-B
	LTE Advanced Pro (1200 Mbps) modem upgrade for E300/E3000 Enterprise Branch Routers — Includes 4 Cellular Antennas, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm	BF-MC400-1200M-B 170801-000
	LTE Advanced (Cat 6) modem, compatible with AER1600/1650, AER2100, AER3100/3150, CBA850, COR Extensibility Dock and the IBR900, IBR600, IBR600B, or IBR600C — Includes 2 Cellular Antennas, Black, 700 MHz - 2.7 GHz, SMA, 160 mm	MC400LP5
Saudi Arabia, United Arab Emirates	MC400LP5 LTE Advanced (Cat 6) modem, compatible with AER1600/1650, AER2100, AER3100/3150, CBA850, COR Extensibility Dock and the IBR900, IBR600, IBR600B, or IBR600C — Includes 2 Cellular Antennas, Black, 700 MHz - 2.7 GHz, SMA, 160 mm	MC400LP5
	LTE Advanced Pro (1200 Mbps) modem upgrade for Branch, compatible with AER1600 and AER2100 — Includes 4 Cellular Antennas, Black, 700 MHz - 2.7 GHz, SMA, 160 mm	End of Sale
	LTE Advanced Pro (1200 Mbps) modem upgrade for LTE Branch Adapter, compatible with CBA850 — Includes 4 Cellular Antennas, White, 700 MHz - 2.7 GHz, SMA, 160 mm	BB-MC400-1200M-B
	LTE Advanced Pro (1200 Mbps) modem upgrade for Mobile, compatible with IBR1700 and COR Extensibility Dock	MA-MC400-1200M-B
	LTE Advanced Pro (1200 Mbps) modem upgrade for E300/E3000 Enterprise Branch Routers — Includes 4 Cellular Antennas, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm	BF-MC400-1200M-B 170801-000
Asia-Pacific: Asia-Pacific, Australia, New Zealand	LTE Advanced (Cat 6) modem, compatible with AER1600/1650, AER2100, AER3100/3150, CBA850; COR Extensibility Dock and the IBR900, IBR600, IBR600B, or IBR600C — Includes 2 Cellular Antennas, Black, 700 MHz - 2.7 GHz, SMA, 160 mm	End of Sale
	LTE Advanced Pro (1200 Mbps) modem upgrade for Branch, compatible with AER1600 and AER2100 — Includes 4 Cellular Antennas, Black, 700 MHz - 2.7 GHz, SMA, 160 mm	End of Sale
	LTE Advanced Pro (1200 Mbps) modem upgrade for LTE Branch Adapter, compatible with CBA850 — Includes 4 Cellular Antennas, White, 700 MHz - 2.7 GHz, SMA, 160 mm	BB-MC400-1200M-B
	LTE Advanced Pro (1200 Mbps) modem upgrade for Mobile, compatible with IBR1700 and COR Extensibility Dock	MA-MC400-1200M-B
	LTE Advanced Pro (1200 Mbps) modem upgrade for E300/E3000 Enterprise Branch Routers — Includes 4 Cellular Antennas, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm	BF-MC400-1200M-B 170801-000

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REGION	DESCRIPTION	PART NUMBER
	MC400-1200M-B LTE Advanced Pro (Cat 12) modem upgrade for Branch	End of Sale
	MC400-1200M-B LTE Advanced Pro (Cat 12) modem upgrade for LTE Branch Adapter	BB-MC400-1200M-B
All Regions:	MC400-1200M-B LTE Advanced Pro (Cat 12) modem upgrade for Mobile	MA-MC400-1200M-B
	MC400-1200M-B LTE Advanced Pro (Cat 12) modem upgrade for Enterprise Branch	BF-MC400-1200M-B
	— All MC400-1200M-B Advanced Pro modems come with 4 Cellular Antennas, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm	170801-000

Support & Warranty

The MC400 Modular Modem is only sold as an optional accessory.

- All Cradlepoint hardware products are covered by a limited lifetime warranty for as long as they have a subscription license to an active NetCloud Service Plan.