About the Conduit® AP 300 Series Wi-Fi

"A secure, programmable LoRaWAN® gateway with integrated Wi-Fi 6 and multi-backhaul connectivity—built for scalable, edge-powered IoT deployments."

Conduit® AP 300 Series Wi-Fi (MTCAP3-WiFi) is a high-performance, secure LoRaWAN® access point and packet-forwarding gateway designed to connect thousands of wireless IoT sensors to cloud-based applications. It enables seamless edge-to-cloud connectivity using LoRaWAN® while supporting multiple backhaul options including Ethernet, Wi-Fi 6, and cellular LTE, ensuring flexible deployment across enterprise and industrial environments.

Built on an advanced, programmable platform, the MTCAP3-WiFi integrates an 8-channel LoRaWAN baseband with Wi-Fi 6 capabilities, allowing it to function simultaneously as an access point and backhaul connection. This enables reliable, high-throughput data transport in both indoor and distributed deployments.

The gateway supports MultiTech's mPower™ Edge Intelligence, providing enhanced security, device management, and edge processing capabilities. This enables customers to run applications locally, reduce latency, and maintain operations even during intermittent network connectivity.

With support for multiple connectivity interfaces, enterprise-grade security, and flexible programmability, the MTCAP3-WiFi is ideally suited for industrial IoT, smart buildings, and large-scale sensor deployments requiring scalable, resilient, and secure network connectivity.

Key Features

- LoRaWAN® 8-Channel Gateway (SX1303)
- Multi-Backhaul Connectivity: Supports Ethernet, Wi-Fi 6, and LTE Cat 4 cellular for flexible network integration
- Wi-Fi 6 (802.11ax) Access Point + Backhaul
- Simultaneous AP and backhaul operation enables simplified network architectures
- Global Cellular Support: LTE Cat 4 modem with multi-band support for worldwide deployment
- Edge Intelligence with mPower™
- Programmable platform supporting Python, C/C++, and JavaScript for local processing and automation
- Enterprise-Grade Security: Built-in encryption and support for secure firmware, authentication, and device management

MTCAP3-WiFi Ordering Options

Ordering Part Number	Description	Cellular Region
MTCAP3-L4G2D-AC3UVA-MUM	LTE Category 4, 1 GB Memory, mPower, Programmable Access Point,8-channel, 915 MHz, Wi-Fi w/external LoRa, Wi-Fi, Cellular antennas and Accessory Kit	Global
MTCAP3- L4G2D-AC3EVA-MEM	LTE Category 4, 1 GB Memory, mPower, Programmable Access Point, 8-channel, 868 MHz, Wi-Fi w/external LoRa, Wi-Fi, Cellular antennas and Accessory Kit	
MTCAP3- L4G2D-AC3UVA-MUM-BAC	LTE Category 4, 1 GB Memory, mPower,/BACnet Programmable Access Point, 8-channel, 915 MHz, Wi-Fi w/external LoRa, Wi-Fi, Cellular antennas and Accessory Kit (AT&T, Verizon)	
MTCAP3- L4G2D-AC3EVA-MEM-BAC	LTE Category 4, 1 GB Memory, mPower,/BACnet Programmable Access Point, 8-channel, 868 MHz, Wi-Fi w/external LoRa, Wi-Fi, Cellular antennas and EU/GB Accessory Kit	

Specifications for 915/868 MHz Models

Category	Description
General	
Standards (915 MHz)	LoRaWAN 1.0.4 specifications
	LTE FDD Cat 4, 3GPP release 11 compliant
	WCDMA/GSM fallback
Standards (868 MHz)	LoRaWAN 1.0.4 specifications
	LTE FDD Cat 4, 3GPP release 11 compliant *(LNA7/LEU7 models)*, 3GPP release 10 compliant *(L4G2D models)*
	WCDMA/GSM fallback
Wi-Fi	Standards: Wi-Fi 6 IEEE 802.11a/b/g/n/ac/ax
	Frequency bands: 2.4 GHz - channels 1-14, 5 GHz - channels 36-193
	Wi-Fi output: Tx-power 18 dBm (Wi-Fi 6, 5 GHz, 20 MHz channel)
	RX sensitivity: Wi-Fi 6 2.4 GHz: -91 dBm, Wi-Fi 6 5 GHz: -92.5 dBm
	Security: 128-bit AES hardware encryption
LoRa radio frequency	915 MHz ISM band, 868 MHz ISM

Category	Description
Cell radio frequency bands (MHz) for L4G2D	4G LTE FDD (Europe): B3 (1800), B7 (2600), B8 (900), B20 (800)
	2G (Europe fallback): B2 (1900), B3 (1800), B5 (850), B8 (900)
	4G LTE FDD (AT&T): B2 (1900), B4 (AWS1700), B12 (700), B14 (700)
	4G LTE FDD (Verizon): B2 (1900), B4 (AWS1700), B13 (700)
	4G LTE FDD (Anterix): B8-US (900)
	4G LTE FDD (APAC): B1 (2100), B9 (1800), B18 (800), B19 (850), B26 (850), B28 (700)
	3G: B1 (2100), B2 (1900), B4 (AWS1700), B5 (850), B6, B8 (900), B19 (850)
	2G: B2 (1900), B3 (1800), B5 (850), B8 (900)
	4G LTE FDD bands: B25 (1900)
Physical Description	
Dimensions	165 (6.5) × 135 (5.3) × 36 (1.4) mm (in)
Weight	0.11 kg (0.24 lb) without antenna
Chassis	PC-ABS
Power Requirements	
Operating voltage	100 - 220v AC 50/60 HZ .5A - power supply that is capable of delivering 5 VDC @ 2.5 Amp. Comes with changeable blades.
AC power requirement	Ethernet active, cellular connection established, LoRa RX: 2W
	Ethernet active, cellular connection at maximum transmit power, LoRa RX+TX: 5W
LoRa tx power (915 MHz)	Australia and North America: 29.1 dBm maximum EIRP *(includes external LoRa antenna)*
	Japan: 14 dBm maximum EIRP *(includes external LoRa antenna)*
	New Zealand: 29.9 dBm maximum EIRP *(includes external LoRa antenna)*
LoRa tx power (868 MHz) [1]	Internal antenna models: 12.3–24.8 dBm maximum ERP; maximum ERP is 12.3 dBm for whole band, except 24.8 dBm at 869.525 MHz
	External antenna models: 13.0–25.5 dBm maximum ERP; maximum ERP is 13.0 dBm for whole band, except 25.5 dBm at 869.525 MHz
Environment	
Operating temperature[2]	0 °C to 70 °C (32 °F to 158 °F)
Storage temperature	-40 °C to 85 °C (–40 °F to 185 °F)
Humidity	20%-90%, RH non-condensing
Certifications (915 MHz)	
FCC/ISED/AU/NZ Compliance EMC	FCC 15.107 Class B
	FCC 15.109 Class B
	FCC 15.109(g) Class B
	ICES-003 Issue 7 Class B
	AS/NZS CISPR 32 Class B
LoRa	FCC 15.247
	RSS-Gen issue 5
	RSS-247 Issue 3
	AS/NZS 4268
MPE (RF exposure)	FCC 2.1091
	RSS-102 issue 6
	AS/NZS 2772
Cell radio	FCC 22H, 24E, 27, 90
Safety compliance	UL / IEC 62368-1: 2018 3rd Edition (see Declaration of Conformity for details)

1 ERP = EIRP – 2.15 dB

2 UL listed at 40 °C, limited by AC power supply. Product has been tested to 70 °C excluding power supply.

Category	Description
Certifications (868 MHz)	
EMC	EN55032 / EN55035
LoRa	EN 300 220-2
	EN 301 489-1
	EN 301 489-3
MPE (RF exposure)	EN 62311
Cell radio	FCC 22H, 24E, 27, 90
ROHS	EN / IEC 63000
Safety compliance	UL / IEC 62368-1: 2018 3rd Edition (see Declaration of Conformity for details)

mPower™ Edge Intelligence

mPower™ Edge Intelligence is an embedded software offering to deliver programmability, network flexibility, enhanced security, and manageability for scalable Industrial Internet of Things (IIoT) solutions. mPower represents the unification and evolution of well-established MultiTech smart router and gateway firmware platforms.

mPower Edge Intelligence simplifies integration with a variety of popular upstream IoT platforms to streamline edge-to-cloud data management and analytics, while also providing the programmability and processing capability to execute critical tasks at the edge of the network to reduce latency; control network and cloud services costs, and ensure core functionality – even in instances when network connectivity may not be available. In response to evolving customer security requirements, mPower Edge Intelligence incorporates a host of new security features including signed firmware validation, secure boot, new Cloud management, programmability of custom apps, Digital I/O, and more.

Accessories

To find information on accessories for your product, go to https://multitech.com/all-products/accessories/.

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