



QuickStart Guide



April 16, 2025

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- New product features
- Protection from new threats

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- Nouvelles fonctionnalités du produit
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Debe registrar el producto para recibir:

- Apoyo técnico
- Nuevas funcionalidades del producto
- Protección contra ataques

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登録すると次のメリットがあります。

テクニカルサポート・新機能の追加・新しい脅威への防御

请马上注册

您的飞塔产品

您在注册以后才能得到技术支持、新产品特点信息、最新威胁防护

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Email: register@fortinet.com

Packing List

FortiExtenderVehicle 511G



2x WiFi and 1x Bluetooth Antennas



5G/LTE/GNSS Vehicle Antenna (Optional)



Mounting Kit



4x Wall Mounting Anchors



4x Wall Mounting Screws

1x Drill Template Sticker



SIM Card Adapter



Vehicle Power Adapter



QuickStart Guide



Product Description

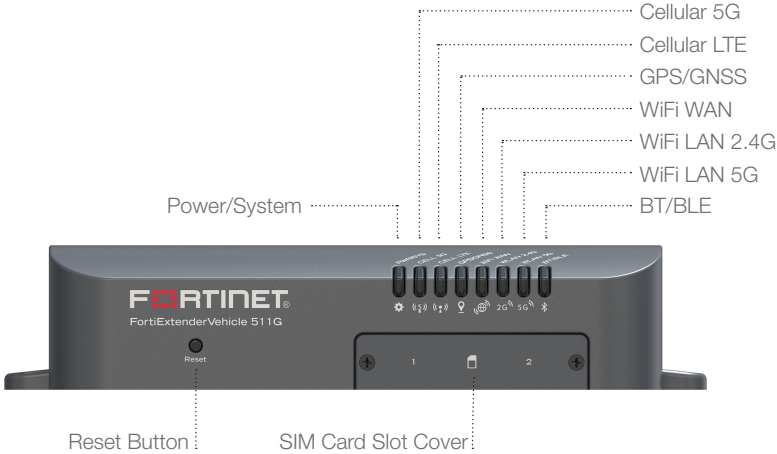
FortiExtenderVehicle 511G is a secure 5G/LTE wireless WAN extender device for vehicular and industrial applications. It has a single 5G Sub 6 GHz high power module, 2x2 2.4G/5G dual-band WiFi6 (802.11 a/b/g/n/ac/ax) and BLE 5.0 integrated in the device. It features one 2.5GE WAN port, four GE LAN RJ45 ports, one USB 2.0 Type A, one DB9 console port, an industrial digital I/O port of Opto isolated input, and one NO/NC relay output.

Model	Modem
FEV-511G	One Telit FN990A28-HP 5G module.

Notes:

FN990A28-HP is a 5G Sub 6 GHz high power module with data throughput up to 3.4 Gbps (DL) /460 Mbps (UL) @5G NSA or 2.5 Gbps (DL) /900 Mbps (UL) @5G SA, and supports GPS/Glonass/Beidou/Galileo navigation system.

Front Panel LEDs and Controls



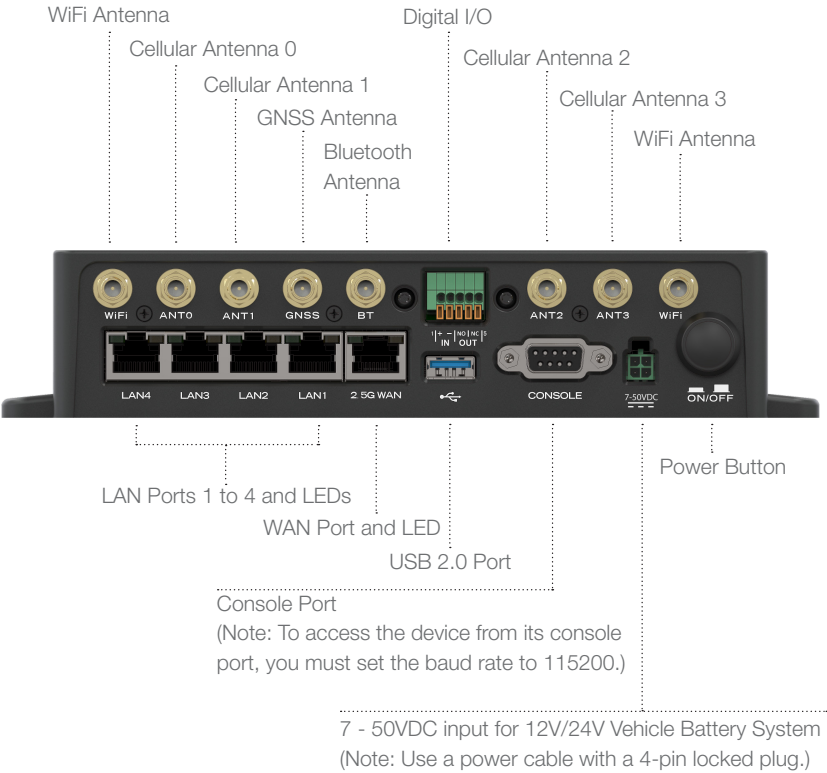
Button Usage

LED	Definition
Reset Button	- Key pressed < 5 sec: System reset - Key pressed >= 5 sec: Back to factory default

LED Behavior

LED	Definition
Power/System (Green/Amber)	- Green Steady ON: System running normal - Green Flashing: Connected - Amber Steady ON: System error - Amber Flashing: System boots up - LED Off: No power
Cellular 5G LNK/ACT (Blue/Amber)	- Blue Steady ON: Connected to 5G with 5G signal level >= 50% - Blue Flashing: 5G activity with 5G signal level >= 50% - Amber LED ON: Connected to 5G with 5G signal level < 50% - Amber LED Flashing: 5G activity with 5G signal level < 50% - Blue(5G)/Green(LTE) both flashing: 5G/LTE modem FW upgrade - LED OFF: Not connected to 5G cellular
Cellular LTE LNK/ACT (Green/Amber)	- Green Steady ON: Connected to LTE with LTE signal level >= 50% - Green Flashing: LTE activity with LTE signal level >= 50% - Amber LED ON: Connected to LTE with LTE signal level < 50% - Amber LED Flashing: LTE activity with LTE signal level < 50% - Blue(5G)/Green(LTE) both flashing: 5G/LTE modem FW upgrade - LED OFF: Not connected to LTE
GPS/GNSS (Green/Amber)	- Green ON: GPS/GNSS locked with > 5 positioning satellites - Amber LED: GPS/GNSS locked with <= 5 positioning satellites - LED OFF: No GPS/GNSS
WiFi WAN (Green/Amber)	- Green Steady ON: 2.5G/1G wired WAN or 5G WiFi connected as WAN - Green Flashing: 2.5G/1G wired WAN or 5G WiFi WAN activity - Amber steady ON: 100M wired WAN or 2.4G WiFi connected as WAN - Amber flashing: 100M wired WAN or 2.4G WiFi WAN activity - LED OFF: No wired WAN or WiFi WAN connection
All five Amber LEDs on	OS upgrade in process
WiFi LAN 2.4G (Green)	- Green Steady ON: 2.4G WiFi connected as LAN - Green Flashing: 2.4G WiFi LAN activity - LED OFF: No 2.4G WiFi LAN
WiFi LAN 5G (Green)	- Green Steady ON: 5G WiFi connected as LAN - Green Flashing: 5G WiFi LAN activity - LED OFF: No 5G WiFi LAN
BT/BLE (Green)	- Green Steady ON: BT ON - LED OFF: BT OFF

Rear View Ports, LEDs, Buttons, and Antenna Connectors



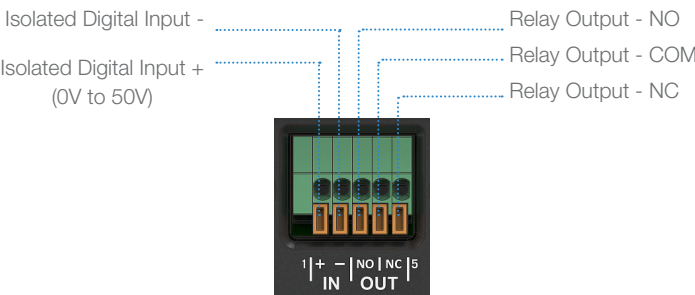
LEDs on RJ45

LEDs	Color	Definition
WAN	Blue (Right LED)	- Blue Steady ON: 2.5G Ethernet connected - Blue Flashing: 2.5G Ethernet activity - LED OFF: No 2.5G Ethernet connection
	Green (Left LED)	- Green Steady ON: 1G or 100M Ethernet connected - Green Flashing: 1G or 100M Ethernet activity - LED OFF: No 1G or 100M Ethernet connection
LAN1-4 Ports	Green (Right LED)	- Green Steady ON: 1G Ethernet connected - Green Flashing: 1G Ethernet activity - LED OFF: No 1G Ethernet connection
	Amber (Left LED)	- Amber Steady ON: 100M Ethernet connected - Amber Flashing: 100M Ethernet activity - LED OFF: No 100M Ethernet connection

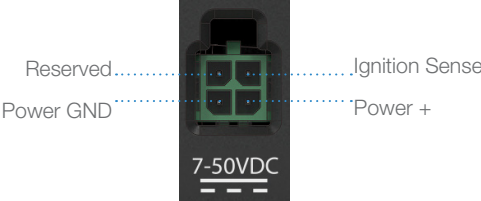
Button Usage

Power Button	- Press to lock: Power on. - Press to release: Power off.
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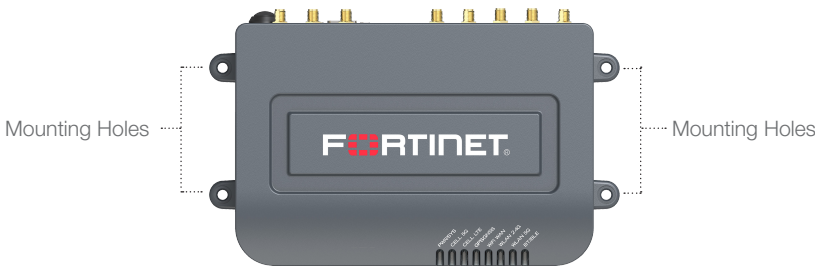
Digital I/O Definitions



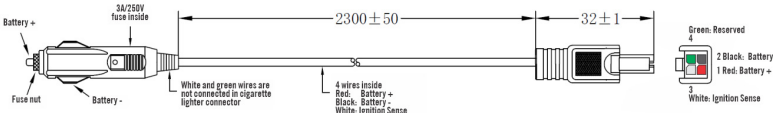
Power Input Pin Definitions



Mounting Holes



Battery Adapter Cable

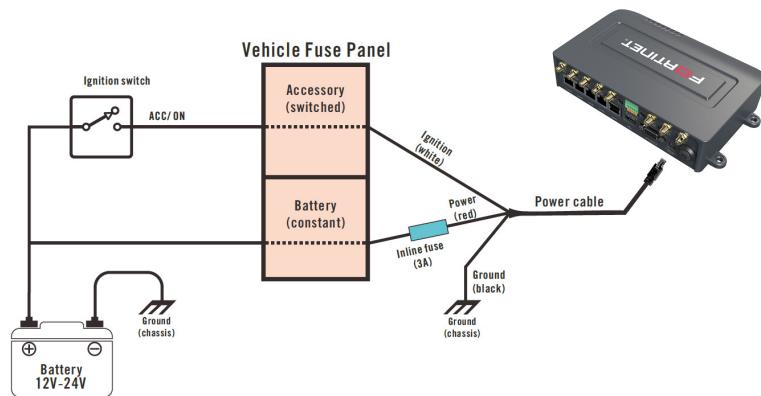


1 Basic Connections



1. Press to release the power button to ensure that the device is in power-off state (the power button is fully out).
2. Plug the cigarette lighter connector of the vehicle power adapter into the vehicle cigarette lighter socket.
3. Plug the 4-pin locked plug into the device power input socket, and press to lock the power button to power on the device.

Power Connection to Vehicle Fuse Panel



Note: UL/cUL Listing for US/Canada vehicle use does not cover use of products connected to vehicle battery via DC cable/connector.

2 Assembly

1. Unscrew the SIM socket dust cover fastening screws, and remove the dust cover.
2. When inserting your MicroSIM (3FF) SIM card(s) into the SIM socket(s), be sure to observe the following guidelines:
 - If installing one SIM card, you can insert the card into either SIM socket
 - If installing two SIM cards, use SIM1 as the primary socket and SIM2 as the secondary
3. Insert the SIM card(s) into the SIM socket(s), making sure that the card is facing down with the cut corner on the left. (If necessary, press the card again to remove it.)
4. Replace the SIM socket dust cover, tighten the dust cover screws, and attach the antennas.