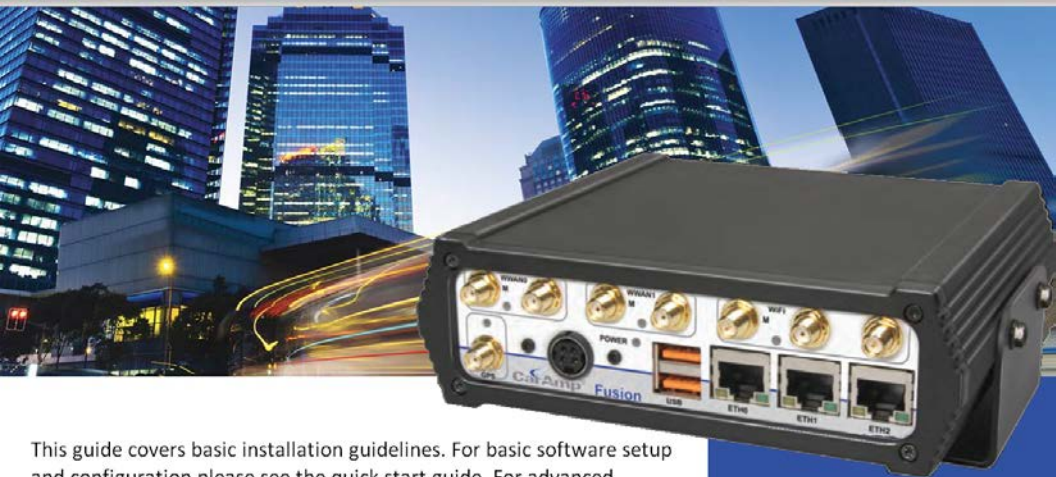


Fusion™

HIGH-PERFORMANCE MULTI-BAND LTE ROUTER

Installation Guide

CalAmp®



This guide covers basic installation guidelines. For basic software setup and configuration please see the quick start guide. For advanced configuration please refer to the user manual.

CalAmp®

Installation Guide

Fusion™

HIGH-PERFORMANCE MULTI-BAND LTE ROUTER

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All specifications are typical and
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Router Use

The Fusion Series routers are designed and intended for use in fixed and mobile applications. "Fixed" assumes the device is physically secured at one location and not easily moved to another location. Please keep the cellular antenna at a safe distance from your head and body while the router is in use.

Important

Maintain a distance of at least 20 cm (8 inches) between the transmitter antenna and any person while in use. This router is designed for use in applications that observe the 20 cm separation distance.

Interference Issues

Avoid possible radio frequency (RF) interference by following these guidelines:

- The use of cellular telephones or devices in aircraft is illegal. Use in aircraft may endanger operation and disrupt the cellular network. Failure to observe this restriction may result in suspension or denial of cellular services to the offender, legal action, or both.
- Do not operate in the vicinity of gasoline or diesel fuel pumps unless use has been approved or authorized.
- Do not operate in locations where medical equipment that the device could interfere with may be in use.
- Do not operate in fuel depots, chemical plants, or blasting areas unless use has been approved and authorized.
- Use care if operating in the vicinity of protected personal medical devices, i.e., hearing aids and pacemakers.
- Operation in the presence of other electronic equipment may cause interference if equipment is incorrectly protected. Follow recommendations for installation from equipment manufacturers.

Mobile Application Safety

- Do not change parameters or perform other maintenance of the Fusion while driving.
- Road safety is crucial. Observe National Regulations for cellular telephones and devices in vehicles.
- Avoid potential interference with vehicle electronics by correctly installing the Fusion router. CalAmp recommends installation by a professional.

UL Listed Models



When operating at elevated temperature extremes, the surface may exceed +70 Celsius. For user safety, the Fusion should be installed in a restricted access location.



WARNING — EXPLOSION HAZARD, do not connect while circuit is live unless area is known to be non-hazardous.

Installation Instructions

UL acceptance requires the following installation instructions. These installation instructions are available and may be downloaded from the www.calamp.com website listed on the CalAmp Product Information Card provided with each unit and include the following:

- 1. This equipment is suitable for use in Class I, Division 2, Groups A, B, C, and D or non-hazardous locations only.



WARNING – EXPLOSION HAZARD – Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.



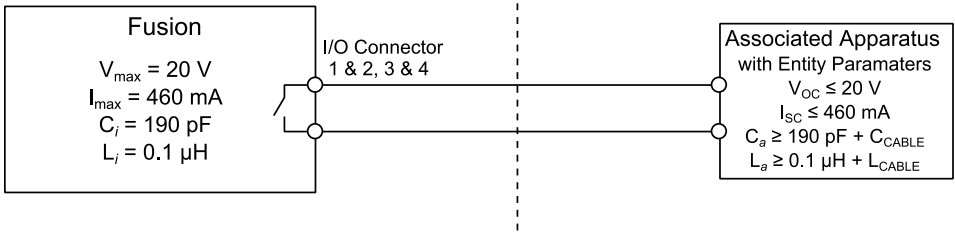
WARNING — EXPLOSION HAZARD – Substitution of components may impair suitability for Class I, Division 2.

- 2. The unit is to be powered with a Listed Class 2 or LPS power supply rated at 9 to 28 VDC or equivalent.
- 3. Device must be installed in an end-use enclosure.
- 4. All wiring routed outside the housing, except for the antenna, must be installed in grounded conduit, following acceptable wiring methods based on installation location and electrical code.
- 5. The USB and SIM connectors are for temporary connection only during maintenance and setup of the device. Do not use, connect, or disconnect unless the area is known to be non-hazardous. Connection or disconnection in an explosive atmosphere could result in an explosion.
- 6. Do not operate reset switch unless area is known to be non-hazardous.

NON-INCENDIVE FIELD WIRING

Hazardous Location
Class I, Division 2, Groups A, B, C, D

Non-Hazardous Location



Installation must be in accordance with the National Electric Code (NFPA 70, Article 504) and ANSI/ISA-RF 12.6. (When the Fusion is located in a non-hazardous location, the maximum voltage is $\pm 30\text{ V}$ and maximum current is 1 A.)

APPROVED ACCESSORIES

The following table shows accessories that, when approved by the manufacturer, represent antennas and cables used with modules in UL testing.

Fusion Accessories used in UL testing

Accessory	Part Number / Description	Quantity
	401-9300-001 Antenna, LTE LProfile HGain (Band 13/Band 17), Mag mount with ground plane disc, SMA, 15 ft., 3G Fallback	2
	401-7100-003 GPS SMA Mag-Mount Antenna	1
	401-7100-004 WiFi Mag-Mount Antenna	1
	150-9300-005 6' DC 3-wire Power Cable	1
	L2CAB0006 7' Ethernet Cable	1

Any changes or modifications not expressly approved by the party responsible for compliance (in the country where used) could void the user’s authority to operate the equipment.

CalAmp reserves the right to update its products, software, or documentation without obligation to notify any individual or entity. Product updates may result in differences between the information provided and the product shipped. For access to the most current product documentation and application notes, visit www.calamp.com.

ABOUT CALAMP

CalAmp (NASDAQ: CAMP) is a proven leader in providing wireless communications solutions to a broad array of vertical-market applications and customers. CalAmp’s extensive portfolio of intelligent communications devices, robust and scalable cloud service platform, and targeted software applications streamline otherwise complex machine-to-machine (M2M) deployments. These solutions enable customers to optimize their operations by collecting, monitoring, and efficiently reporting business-critical data and intelligence from high-value remote assets. CalAmp provides wireless data communication solutions for the telemetry and asset tracking markets, private wireless networks, railroad Positive Train Control (PTC) radio transceivers, public safety communications and critical infrastructure and process control applications. For additional information, please visit the CalAmp website: www.calamp.com.

REVISION HISTORY

REV	DATE	REVISION DETAILS
A	January 2014	Initial release of PN 001-9300-001 as Installation Guide for Fusion High-Performance Multi-band LTE Router.