



# Fusion™

High-Performance Multi-Network LTE Router



## EXPERIENCE THE ADVANTAGE

- Band 13 or 17 LTE for public infrastructure
- Band 14 LTE for private infrastructure
- Superior RF performance with MIMO capabilities
- Secure IPSec VPN connectivity
- Autonomous WAAS enabled GPS with local and host reporting
- 24/7 world class, multi technology single supplier support

## MISSION CRITICAL BROADBAND CONNECTIVITY FOR FIXED AND MOBILE APPLICATIONS

Fusion offers a single, flexible platform to address a variety of wireless communications needs with over-the-air configuration and system monitoring for optimal connectivity. This ready-to-deploy broadband router enables wireless data connectivity over public and private LTE cellular networks at 4G speeds.

For the ultimate in versatility, the Fusion provides high-speed 4G LTE public safety band 14 broadband connectivity for private infrastructure as well as public carriers infrastructure on 700 MHz Band 13 or 17 (with 3G EV-DO/HSPA fallback modes) based on 3GPP Standard E-Utra Release 8 technologies. Three Ethernet ports with routing capability can connect multiple LANs. An optional b/g/n WiFi interface with configurable access point or client operations supports connectivity to IP applications in a variety of network scenarios. The WAAS enable GPS connects seamlessly with AVL applications hosted locally or remotely. An easy to use web-based management and configuration interface as well as comprehensive remote management facilities are included.

LTE/WiFi/Ethernet rule-based and application port-based switching enables IP control such as segregating some traffic specific to designated bearer networks and choosing the WAN fallback order. Multiple WAN connection options provide redundant data connection and automatic switchover upon loss of connectivity to primary network. The Fusion is designed to operate concurrently with external WAN radios, including CalAmp's narrowband technology and satellite radios, making it a powerful and unique enabler of interoperable network technologies.

The integrated IP router and three Ethernet ports allow setup of up to three wired, independent subnets. The Fusion facilitates traffic routing between all of the concurrently operating networks without requiring an external router or switch. The optional WiFi allows Fusion to manage and route between wireless and wired local area networks.

The Fusion integrates with CalAmp Gemini G3 narrowband equipment to extend their functionality to include LTE connectivity and access additional Fusion peripherals.

# FUSION SPECIFICATIONS

## GENERAL

Input Voltage	10 to 30 VDC
Power Consumption	RX: 5.5W Cell and GPS, 7.7W with WiFi TX: 9.1W Cell and GPS, 13.0W with WiFi
LTE Diversity Support	DL MIMO, UL SISO
Security	3GPP Rel 8 security sublayer, IPsec VPN
Certifications	FCC Part 15 Subpart B Class A, IC ICES-003, PTCRB approval Verizon Carrier Certification ATT Carrier Certification

## CONNECTORS/INTERFACE

Device Management	SNMP, embedded HTTP server for setup and help
LED Indicators	WWAN0, WWAN1, WiFi, GPS, POWER, ETH0, ETH1, ETH2, STATUS
Power	4-pin locking, ignition sense and alarm inputs
Console/Setup	3-wire serial connection in USB MiniB form factor
Ethernet	(3) 10/100 Mbps RJ-45, auto MDIX
USB	(2) Type A female
Serial	Supported via optional accessory
I/O	2 digital inputs, 2 analog inputs, 2 outputs (relay driven contact closures)
Antenna	(3) SMA-RP (802.11 b/g or b/g/n WiFi) (2) SMA (cellular) WWAN0 (2) SMA (cellular) WWAN1 (1) SMA (GPS)

## MECHANICAL/ENVIRONMENTAL

Dimensions	5.5 (L)x6.0 (W)x1.8 (H) in, 14x15.25x4.5 cm
Weight	2.5lb, 1.13 kg
Temperature Range	-40° to +70° C, -22° to +140° F
Humidity	5% to 95% non-condensing
Ruggedized	Meets MIL-STD 810F

## LTE TECHNOLOGY/BANDS

Band 14	700 MHz "D" Block DL MIMO, UL SISO
Band 13	700 MHz DL MIMO, UL SISO
Band 17	700 MHz DL MIMO, UL SISO

## CDMA TECHNOLOGY/BANDS

EVDO Rev A (IS-856-A)	800 MHz Cellular/1900 MHz PCS Downlink 3.1 Mbps; Uplink 1.8 Mbps
1xEVDO Rev0 (IS-856)	800 MHz Cellular/1900 MHz PCS Downlink 2.4 Mbps; Uplink 153.6 kbps
1xRTT (IS-2000)	800 MHz Cellular/1900 MHz PCS Downlink 153.6 kbps; Uplink 153.6 kbps

## GSM TECHNOLOGY/BANDS

UMTS/HSPA	Quad-band 850/900/1900/2100 MHz Downlink 7.2 Mbps, Uplink 2.0 Mbps
EDGE/GPRS	Quad-band 850/900/1800/1900 MHz Downlink 236 kbps, Uplink 236 kbps

## WIFI TECHNOLOGY/BANDS

IEEE 802.11 b/g or b/g/n	32 bit mPCI type IIIA high power/performance WiFi
Security	WPA2, AES-CCM & TKIP Encryption, 64/128/152 bit WEP
Data Rates	6 Mbps, 9 Mbps, 12 Mbps, 24 Mbps, 36 Mbps, 48 Mbps, 54 Mbps

## About CalAmp

CalAmp Corp. (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 desired intelligence from high-value remote assets. For more information, please visit [www.calamp.com](http://www.calamp.com).

