

OptConnect ema:USB

As the world's first smart modem, the ema:USB checks all the boxes: It's easy to integrate, quick to deploy, low cost, and ultra compact so it can fit just about anywhere. At its core, the ema:USB contains the OptConnect ema, a patented, fully certified LTE category 4 modem that helps customers avoid the added cost and difficulties of developing a low-level embedded wireless design.

The right fit, the right technology

Thanks to its slim form factor, the ema:USB can fit into areas where other solutions can't - from digital signs to retail kiosks to compact industrial equipment. Its magnetic base and optional DIN mounting clip make placement easy. Thanks to its onboard USB hub, modem UART, and emaLink interfaces, the ema:USB can communicate easily with your system. It also comes fully kitted with two (C to C and A to C) USB cables, and a dual-lead LTE antenna.

The heart of simplified cellular

How does the ema:USB make connectivity both robust and simple? It all starts with a proprietary emaConnect driver that optimizes compatibility and performance, for plug-and-play functionality across diverse environments. Additionally, the ema:USB features dual-SIM capability, ensuring automatic failover and true peace of mind if one carrier encounters a network issue. Like all OptConnect hardware, the ema:USB is a fully managed solution - which means it includes 24 x 7 x 365 carrier monitoring, one-call tech support resolution, device management, robust warranties, and a full suite of additional services.



Advantages:

- High-speed 4G LTE Cat 4 connectivity
- Ultra-slim form factor: 2.266 x 1.321 x 0.89 in
- Dual-SIM technology
- Flexible mounting options
- Plug-and-play simplicity
- Semi-rugged build
- Cost-effective solution

Recommended for:

- Tight spaces and high-speed data needs
- Those needing a cheaper, faster solution to fully embedded connectivity

Cellular	
Part Number(s)	EMA-L4-1-US-B-C-000: ema:USB with Verizon primary modem inside
Target Region	North America (AT&T, Verizon)
LTE CAT 4	FDD B2, B4, B5, B12, B13
Speed	Download Rate (Max.) Upload Rate (Max.) 150 Mbps 50 Mbps
SIM Slots	2 x OC SIM
Antenna Connectors	2 x SMA (F)
Cellular Antenna	
Frequency (MHz)	698-960, 1710-2170, 2500-2700
Nominal Impedance	50
VSWR	~2.7:1 @ 698-960, ~1.5:1 @ 1710-2170, ~1.4:1 @ 2500-2700
Radiation Pattern	Omni-Directional
Efficiency (%)	~39 @ 698-960, ~52 @ 1710-2170, ~50 @ 2500-2700
Average Gain (dBi)	~(-4.2) @ 698-960, ~(-2.9) @ 1710-2170, ~(-3.0) @ 2500-2700
Peak Gain (dBi)	~(-0.1) @ 698-960, ~2.9 @ 1710-2170, ~3.5 @ 2500-2700
Polarization	Linear
Max Input Power (W)	25
Power	
Input Voltage	(USB VBUS Standard) 4.75VDC to 5.25VDC , nominal 5.0VDC
Continuous Average Current	100mA @ 5V
Peak Current (Pulse)	1A @ 5V
Interfaces	
Type	USB-C, 2 x Virtual COM Ports
USB Driver Support	USB 2.0, *Linux, *Windows, *Android
Internet Protocols	TCP/IP, UDP, Ethernet over USB (PPP, CDC-NCM, MBIM)
Communication Mode(s)	3GPP TS 27.005, 27.007 and Telit/OptConnect Custom AT commands Secondary OptConnect ema™ emaLink interface
General	
LEDs	1 x Power ON/OFF, 1 x ema modem status, 4 x Signal Quality, 1 x Activity
Dimensions	2.266 x 1.321 x 0.89 in, 57.56 x 33.55 x 22.60 mm
Weight	41 grams
Approvals	
Carrier	AT&T, Verizon
Regulatory	FCC, IC, RoHS
Temperature Range	
Operating Temp	-20°C to +85°C



Lifetime Access to Summit

The ema:USB - like every other OptConnect device - comes with lifetime access to the Summit monitoring platform, enabling you to access your wireless portfolio wherever you go. With Summit, you can conveniently view and manage devices from your phone, tablet, or computer.

Flexible and Customizable

With Summit, you can structure your portfolio to mirror the way you operate your business. Group your devices by device type, location, organization, technology, type of connected equipment, or any other designation you choose so you see exactly what you want and need.

Enhanced Security

Need to provide exclusive access to groups of devices within your company - and to third-party organizations or individuals? Summit makes it all easy with customizable permissions, for maximum flexibility, monitoring, and security. Specific roles ensure complete security for your portfolio, giving visibility only to those you assign.



Summit includes incredible features that customers have come to rely on.



Monitor the health of each OptConnect device



Check signal strength



Reset wireless connections

24/7

Real-time status checks



API integration



Review check-in data



Get location information about the device



And so much more!

Fully Managed Connectivity by OptConnect

OptConnect provides a safe and secure Internet connection via cellular and a whole lot more. Rather than simply providing the connection to the Internet, OptConnect bundles that with an entire suite of managed services that provides greater connectivity uptime and less stress and worry for the operators since every necessary component is being taken care of.

With a fully managed solution by OptConnect, operators have extra peace of mind, knowing they are getting the best-available hardware, most reliable carrier networks, secure private IP connections, access to award-winning, 24-7 customer care, real-time monitoring/management, data overage risk mitigation, lifetime warranty, the Summit platform, and the ability to manage their devices remotely from anywhere.



24/7/365
Technical Support



Real-Time
Management



Fulfillment



Secure Private IP
Networks



Data Overage
Risk Mitigation



Summit: Customer
Dashboard



Customized
Data Plans



Robust
Warranties



For more information about the ema:USB, please visit optconnect.com/products/emausb or call us at 877-678-3343.