



EM7590 LTE-Advanced Pro Module

Reliable 4G LTE Advanced Pro Cat-13 module global connectivity with 3G fallback

The EM7590 wireless module is part of the [EM Series](#) delivering high speed connectivity and a wide selection of advanced air interfaces, including LTE Advanced with carrier aggregation. This LTE-A Cat-13 embedded module delivers 400 Mbps downlink and 150 Mbps uplink speed, supports private LTE bands and enables secure and reliable public safety communications on the FirstNet Band 14. Based on the PCI Express M.2 standard with USB 3.0 and USB 2.0 interfaces, the EM7590 module offers an easy upgrade path to new network technologies and global access to high speed networks. EM7590 is ideal for public safety, industrial M2M, and mobile computing solutions.

Air Interface:

4G LTE Advanced Pro Cat-13 with 3G fallback

Region:

Global

Carrier:

Global (AT&T (FirstNet), Verizon, T-Mobile, SouthernLINC, Orange, Telstra, Planned: NTT Docomo)

CBRS

Certified by the FCC for [CBRS](#) private networks to provide reliability, security, flexibility, and cost savings

Global

Worldwide coverage on a single module with industry and mobile network certifications to get you to market faster

Onboard SIM

Embedded SIM to simplify and add flexibility to IoT deployments. Carrier profile, M2M eUICC, and consumer eUICC are available based on customer use case

Location Services

Integrated GNSS receiver enables tracking and location-based services for increased accuracy.

Enhanced Coverage

Dual SIM single standby (DSSS) switches between networks quickly to stay connected

Secure Boot

Prevent unauthorized code on the target to keep your connectivity secure

Industrial-Grade

Tested for harsh environments and extreme temperatures

Specifications

4G LTE	
Category	Cat-13
Frequency Bands	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B18, B19, B20, B25, B26, B28, B29, B32, B38, B39, B40, B41, B42, B43, B48, B66, B71
3G	
HSPA+	B1, B2, B4, B5, B6, B8, B9, B19
DATA SPEED	
Peak Download Rate	400Mbps
Peak Upload Rate	150Mbps
LOCATION SERVICES	
Satellite Systems	GPS, Galileo, Glonass, Beidou
EMBEDDED SOFTWARE	
Firmware	Secure boot, Pre-certified firmware
System Drivers	Windows® 10, Windows® 11, Linux (Driver: Open Source), Android RIL
INTERFACES	
USB	USB 3.0, USB 2.0 High Speed
SIM interface 1.8V/3V	2
HARDWARE	
Dimensions	42x30x2.3mm
Antenna	Diversity, MIMO, GNSS Bias, Connectors: Main, Aux/GNSS, GNSS
Temperature Range	-30°C / +70°C, -40°C / +85°C
APPROVALS	
Carrier	AT&T (FirstNet), Verizon, T-Mobile, SouthernLINC, Orange, Telstra

HARDWARE	
Planned Carrier	NTT Docomo
Regulatory	FCC, IC, PTCRB, GCF, EU RED, JATE/Telec
EMBEDDED SIM	
EMBEDDED SIM	Onboard consumer eUICC (optional)

