

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 (Planned: AT&T (FirstNet), Verizon, T-Mobile, Tesltra, NTT Docomo, KDDI, Softbank)



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

GNSS receiver enables tracking and location-based services with dual L1 and L5 bands 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
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DATA SPEED

Peak Download Rate	400Mbps
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Peak Upload Rate	150Mbps
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LOCATION SERVICES

Satellite Systems	GPS, Galileo, Glonass, Beidou
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EMBEDDED SOFTWARE

Firmware	Secure boot, Pre-certified firmware
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System Drivers	Windows® 10, Windows® 11, Linux (Driver: Open Source), Android RIL
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INTERFACES

USB	USB 3.0, USB 2.0 High Speed
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SIM interface 1.8V/3V	2
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HARDWARE

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

Planned Carrier	AT&T, Verizon, T-Mobile, Telstra, docomo, Softbank, KDDI
Regulatory	FCC, IC, PTCRB, GCF, EU RED, JATE/Telec



EMBEDDED SIM

EMBEDDED SIM	Onboard consumer eUICC (optional)
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Connect with an IoT Expert

Have an expert help you choose an IoT module that best fits your project.

Related Products

	
<p>EM7421 Industrial- grade IoT Module</p> <p>Optimized 4G LTE</p>	<p>EM7431 Industrial- grade IoT Module</p> <p>Optimized 4G LTE</p>

connectivity
offering 150 Mbps
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Asia Pacific

4G 3G



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