EM9291

Air Interface: 5G NR Sub-6 with 4G and 3G fallback

Region: Global

Carrier: AT&T (FirstNet),Verizon,NTT Docomo,T-Mobile,Telstra,Softbank,KDDI,LGU+,Dish

Optimized 5G NR performance for applications requiring Gibabit speed, the EM9291 module is part of the EM Series offering global 5G connectivity.

Designed in an M.2 form factor, the EM9291 is compatible with Sierra Wireless's EM9191 module for a simple upgrade path to get the latest standards compliance and bands, as well as the EM7690 module to help facilitate the migration and differentiation between 4G LTE and 5G.

This 5G NR Sub-6 GHz embedded module delivers up to 4.9Gbps downlink speed and 660Mbps uplink speed. With automatic 4G and 3G fallback networks and integrated GNSS receiver (GPS, GLONASS, BeiDou, and Galileo satellite systems supported), the EM9291 is applicable to a wide range of IoT applications such as industrial routers, home gateways, industrial and consumer laptops, rugged tablet PCs, video surveillance and digital signage.

Benefits

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

Technical Specifications

5G NR

Category
5G NR Sub-6

Frequency Bands
n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n39, n40, n41, n46, n48, n66, n70, n71, n75, n76, n77, n78, n79

4G LTE

Category
Cat-20

Frequency Bands
B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B18, B19, B20, B21, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71

DATA SPEED

Peak Download Rate
4.9 Gbps

Peak Upload Rate
660Mbps

LOCATION SERVICES

Satellite Systems
Galileo, Glonass, GPS, Beidou (Bands: L1 and L5)

EMBEDDED SOFTWARE

Firmware
Secure boot, Pre-certified firmware

System Drivers
Windows® 10, Linux, Android RIL

INTERFACES

USB

USB 3.1

PCIe

PCIe generation 3 (or 2), 1 lane

HARDWARE

Dimensions

30x52x2.38mm

Temperature Range

-30°C / +70°C, -40°C / +85°C

APPROVALS

Carrier

AT&T (FirstNet), NTT Docomo, Dish, KDDI, LGU+, Softbank, T-Mobile, Telstra, Verizon

Regulatory

FCC, GCF, IC, KCC, PTCRB, EU RED, JATE/Telec

EMBEDDED SIM

Onboard consumer eUICC (optional)