

# Fibocom FG190W-NA

5G mmW Module



## Key advantages:

- High-performance 5G NR mmW IoT module
- Compatible with 3GPP Release 17 standards, providing a better 5G experience
- Supports multiple network standards including 5G NR (including mmW&Sub-6) , LTE
- Integrates a multi-constellation GNSS receiver to provide fast and accurate positioning in various environments



NR CA



Release 17



NR mmW+Sub6



Digital Audio /  
VoLTE / VoNR



Multi-constellation GNSS



USB3.1 /PCIe high-speed port



Fibocom enhances AT  
Commands



Reference design and  
Application development  
support

Fibocom 's FG190W-NA is a series of 5G communication modules designed for use in North America. These modules support both 5G standalone (SA) and non-standalone (NSA) network architectures, offering faster transmission speeds, better carrying capacity, and lower network latency.

The FG190W-NA module is capable of supporting 3GPP Release 17 and NR CA, as well as FDD & TDD ENDC. It features the standard LGA interface and measures 45\*52\*2.75mm, which makes it easy for customers to update their products quickly and respond to the commercial needs of rapid deployment.

FG190W has a built-in Cortex-core ARM Cortex-A55 2.2GHz CPU, supporting two 10Gbps USXGMII interfaces, a variety of LAN port configurations, and a variety of Wi-Fi configurations, providing a complete set of CPE, gateway and other complete machine solutions. FG190W is mainly aimed at intelligent terminals such as fixed wireless access (FWA), CPE, gateway, router, industrial monitoring terminal and telemedicine terminal.



NR Sub6	FG190W-NA
Region	North America
<b>Basic Features</b>	
Chipset	SDX75-1
Package	LGA
Dimension (mm)	45 x 52 x 2.75mm
Weight	TBD
5G mmW	n257/258/260/261
5G Sub-6	n2/5/7/12/14/25/26/29/30/38/41/48/66/70/71/77/78
8RX	n25/66/41/77
LTE FDD	B2/4/5/7/12/13/14/17/25/26/29/30/66/71
LTE TDD	B38/41/42/43/48
MIMO	5G NR: DL 4x4 MIMO:n2/5/7/12/14/25/26/30/38/41/48/66/70/71/77/78 UL 2x2 MIMO:n25/41/48/66/71/77/78 LTE: DL 4x4 MIMO: B2/4/5/7/12/13/14/17/25/26/30/38/41/42/43/48/66/71
Antenna	8RX: 8+ 1(GNSS) 4RX: 4/6+1(GNSS)
Memory	1GB LPDDR4x+4GB eMMC Flash
Power Supply	3.3V~4.4V, Typical 3.8V
Operating Temp.	-40°C - +85°C
Software Support	OpenWRT/RDK-B
AT Command	3GPP TS 27.007 and 27.005, Proprietary FIBOCOM AT Commands
<b>Data Transmission</b>	
FR1+FR2	10Gbps(DL) / 3.38Gbps(UL)
NR SA	1024 QAM 7.7Gbps(DL) / 900Mbps(UL)
NR NSA	1024 QAM 5.95Gbps(DL) / 555Mbps(UL)
LTE	2.0Gbps(DL) / 211Mbps(UL)
<b>Enhanced Features</b>	
Voice	VoLTE*/VONR*
SMS	SMS over IP(IMS)
Audio	•
DFOTA	•
GNSS	GPS/GLONASS/Galileo/BeiDou/QZSS/NavIC
<b>Software Features</b>	
Driver	USB: Linux 2.6.38 and later/Windows7&10/Android7.x&8.x&9.x RIL: Android7.x&8.x&9.x NDIS: Windows7&10 ECM: Linux 2.6.38 and later Gobinet: Linux 2.6.38 and later
MBIM	Windows 10 and later/Linux 3.8 and later QMI WWAN: Linux 3.4 and later
QMI WWAN	Linux 3.4 and later
Network Protocol	TCP/UDP/FTP/HTTP/HTTPS/PING/LwM2M/SMS
<b>Interfaces</b>	
USB	USB3.1/3.0/2.0
PCIe	PCIe4.0/3.0x 1+PCIe3.0 x 2
UART	•
SPI	•
GPIO	•
I2C	•
PCM	•
UIM	•
I2S	•
UXSGMII	x2
Certification	FCC*/PTCRB*/GCF*/RoHS*/Reach*/

