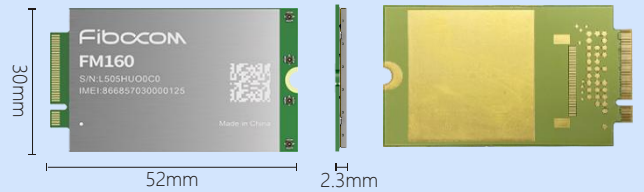# Fibocom FM160

5G Sub-6 GHz Module for IoT applications

30mm · 52mm · 2.3mm

Key Benefits

• High-performance 5G Sub-6 GHz Module for IoT applications

• A better 5G network experience supporting 3GPP Release16 standards and NR CA

• Worldwide NR/LTE/WCDMA coverage

• Standard M.2 form factor with rich interfaces and high reliability

• GNSS receiver available for applications requiring fast and accurate positioning in any environment

• Professional reference design, evaluation kits and timely technical support to help customers quickly complete product development

NR CA

Release 16

NR Sub6

M.2 Package

Digital Audio / VoLTE / VoNR

GNSS

USB3.1 /PCIe

Fibocom Enhanced AT Commands

Professional reference design, evaluation kits

Fibocom FM160 is a NR Sub 6 module compliant with 3GPP Release 16. The module The module supports NR CA, delivering maximum downlink rates of 3.5Gbps and uplink rates of 900Mbps under 5G, suitable for IoT applications that require high data throughput.

FM160 module adopts M.2 form factor measuring 30x52x2.3mm. It is compatible with Fibocom's 5G module FM150, backward compatible with LTE-TDD, LTE-FDD and WCDMA network standards.

FM160 also supports multi-constellation GNSS receiver (GPS/ Galileo/ GLONASS/ BeiDou), which provides high-performance positioning and navigation. Meanwhile, it supports a rich set of interfaces including USIM, USB 3.1/3.0, PCIe 4.0 and I2S, allowing much flexibility and ease of integration for customer's application. With multiple Internet protocols and industry-standard interfaces, FM160 can be used in a variety of cellular terminals such as CPE, STB, IPC and ODU.

PERFECT WIRELESS EXPERIENCE

Fibocom

NR Sub6	FM160-NA-00/01	FM160-EAU-00/01	FM160-CN-00/01
Region	North America	Europe, Asia Pacific, Australia	China
Basic Features			
Package	M.2		
Dimension (mm)	30x52x2.3		
NR	n2/5/12/14/25/30/48/41/70/66/71/77	n1/3/5/7/8/20/28/38/40/41/75/76/77/78	n1/28/41/78/79
LTE FDD	B2/4/5/12/13/29/30/66/71	B1/3/5/7/8/20/28/32	B1/3/5/8
LTE TDD	B41/48/46	B38/40/41/42/43	B34/38/39/40/41
WCDMA	NA	B1/5/8	B1/8
MIMO	NR DL 4*4MIMO: n2/5/12/14/25/30/41/66/70/71/77 LTE DL 4*4MIMO: B2/4/5/12/13/25/30/41/48/66/71	NR DL 4*4MIMO: n1/3/5/7/20/28/38/40/41/75/76/77/78 LTE DL 4*4MIMO: B1/3/5/7/20/28/32/38/40/41/42/43	NR DL 4*4MIMO: n1/41/78/79 LTE DL 4*4MIMO: B1//41
Antenna	4		
Power Supply	3.135v~4.4v, Typical 3.8V		
Operating Temp.	-30°C - +75°C		
AT Command	3GPP TS 27.007 and 27.005, Proprietary FIBOCOM AT Commands		
Data Transmission			
NR SA(Mbps)	Max. 2500 DL / Max. 900 UL		
NR NSA(Mbps)	Max. 3500 DL / Max. 555 UL		
LTE(Mbps)	Max. 1600 DL / Max. 211 UL		
WCDMA(Mbps)	Max. 42 DL / Max. 5.67 UL		
Enhanced Features			
Voice	CS Voice/VoLTE/VoNR		
SMS	SMS/SMS over IP(IMS)/SMS over NAS		
Audio	●		
DFOTA	●		
GNSS	GPS/GLONASS/Galileo/BeiDou/QZSS		
Software Features			
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	PAP/CHAP/IPv4/IPv6/LwM2M/APN/STK-OTA/STK-BIP/DTMF		
Interfaces			
USB	USB3.1/3.0(USB2.0 compatible)		
PCIe	PCIe4.0		
UART	NA		
SPI	NA		
GPIO	●		
I2C	NA		
SDIO	NA		
UIM	●		
I2S	●		
RGMII	NA		
eSIM	Optional		
Certification Approvals			
Regulation	FCC/IC*	CE/RCM	CCC/SRRC/NAL
Operator	TMO*/ATT*/VZW*	Telstra*	
Industry	GCF/PTCRB	GCF	

* = planning /under development   ● = support