

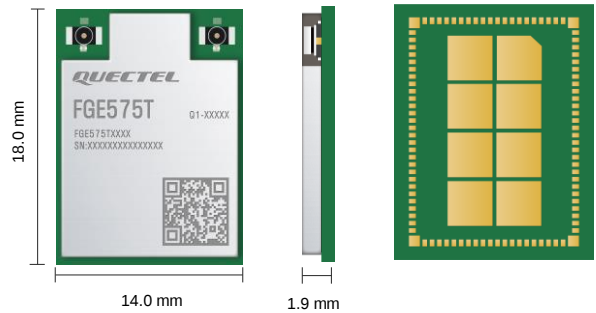


Quectel FGE575T

2.4/ 5/ 6 GHz Wi-Fi Bands

2 × 2 MIMO, DBS

Wi-Fi 7 & Bluetooth 5.4 Module



FGE575T is a highly integrated Wi-Fi 7 and Bluetooth 5.4 module that uses 4K QAM and 160 MHz bandwidth, supporting 2 × 2 MIMO, and can reach a maximum data rate of up to 2.9 Gbps.

FGE575T supports multi-link operation (MLO), allowing terminals to use multiple wireless bands and channels to connect to Wi-Fi 7 clients simultaneously, thereby achieving higher data rates, lower latency, and higher network reliability. In addition, the module also ensures that Bluetooth and Wi-Fi coexistence can operate concurrently on the 2.4 GHz band without interfering with each other, providing users with a faster, more stable, and more reliable wireless connection experience.

FGE575T uses LGA package with a dimension of 18.0 mm × 14.0 mm × 1.9 mm. This packaging method not only improves the module's integration, but also helps improve heat dissipation and electrical performance, making FGE575T particularly suitable for laptop applications.



Key Features

- ✓ 2.4 GHz/ 5 GHz/ 6 GHz Wi-Fi bands
- ✓ Bluetooth 5.4
- ✓ 4096 QAM
- ✓ Multi-Link Operation (MLO) and lower latency
- ✓ Multi-User MIMO
- ✓ 160 MHz bandwidth
- ✓ Wide operating temperature range: -10 °C to +70°C



Wi-Fi 7
2.4/ 5/ 6 GHz



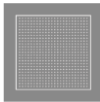
Multi-Link
Operation



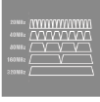
Bluetooth 5.4



Multi-User
MIMO



4K QAM



160 MHz
Bandwidth

Quectel FGE575T

Wi-Fi 7 & Bluetooth 5.4		FGE575T
WLAN Protocol	IEEE 802.11a/b/g/n/ac/ax/be	
Wi-Fi Frequency Band	2.4 GHz/ 5 GHz/ 6 GHz	
Wi-Fi Antenna	2 × 2 + 2 × 2	
Modulation Mode	DBPSK/ DQPSK/ CCK/ BPSK/ QPSK/ 16QAM/ 64QAM/ 256QAM/ 1024QAM/ 4096QAM	
2.4 GHz Channel Bandwidth	20 MHz/ 40 MHz	
5 GHz Channel Bandwidth	20 MHz/ 40 MHz/ 80 MHz/ 160 MHz	
6 GHz Channel Bandwidth	20 MHz/ 40 MHz/ 80 MHz/ 160 MHz	
Encryption Mode	WPA/ WPA2/ WPA3	
Wi-Fi Operating Mode	AP/ STA	
Bluetooth Protocol	Bluetooth 5.4	
Dimensions	18.0 mm × 14.0 mm × 1.9 mm	
Weight	TBD	
Temperature Range		
Operating Temperature Range	-10 °C to +70 °C	
Physical Rate (Max.)		
802.11a	54 Mbps	
802.11b	11 Mbps	
802.11g	54 Mbps	
802.11n	300 Mbps	
802.11ac	1732 Mbps	
802.11ax	2400 Mbps	
802.11be	2900 Mbps	
Interfaces		
PCIe 2.1	× 1 (for Wi-Fi)	
USB	× 1 (for Bluetooth)	
PCM	× 1 (for Bluetooth audio)	
Wi-Fi/Bluetooth Antenna Interfaces	× 2	
Electrical Features		
Power Supply Voltage	VBAT: 2.97–3.63 V, Typ. 3.3 V VDD_IO: 1.7–1.9 V, Typ. 1.8 V	
Power Consumption	Max. current at Tx mode: TBD @ VBAT TBD @ VDD_IO	
Certifications		
Regulatory (Planning)	China: SRRC Europe: CE America: FCC Canada: IC Japan: JATE/TELEC Australia/New Zealand: RCM Korea: KC Brazil: Anatel	

Model	Ordering Code	Antenna	DBS	Host Platform
FGE575T	FGE575TAAMD	Two antennas	Supported	X86 platform