

Quectel RM500Q-AE

5G Sub-6		RM500Q-AE
Region/Operator		Global (Except for China)
Dimensions (mm)		30.0 × 52.0 × 2.3
Weight (g)		8.7
Temperature Range		
Operation Temperature		-30 °C to +70 °C
Extended Temperature		-40 °C to +85 °C
Frequency Bands		
5G	5G NR	3GPP Release 15 NSA/SA operation, Sub-6 GHz
	5G NR NSA	n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79
	5G NR SA	n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79
	MIMO	DL: 4 × 4 MIMO on n1/n2/n3/n7/n25/n38/n40/n41/n48*/n66/n77/n78/n79 UL: 2 × 2 MIMO on n41
LTE	LTE Category	DL Cat 16/ UL Cat 18
	LTE-FDD	B1/B2/B3/B4/B5/B7/B8/B12(B17)/B13/B14/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71
	LTE-TDD	B34/B38/B39/B40/B41/B42/B43/B48
	LAA	B46 (only support 2 × 2 MIMO)
	MIMO	DL: 4 × 4 MIMO on B1/B2/B3/B4/B7/B25/B30/B32/B34/B38/B39/B40/B41/B42/B43/B48/B66
UMTS	WCDMA	B1/B2/B3/B4/B5/B6/B8/B19
GNSS		GPS/GLONASS/BeiDou (Compass)/Galileo
Certifications		
Regulatory		GCF (Global) CE (Europe) PTCRB* (North America) FCC (America) IC* (Canada) JATE*/TELEC* (Japan) RCM (Australia/New Zealand) Verizon*/AT&T*/T-Mobile* (America)
Carrier		NTT DOCOMO* (Japan) Telstra* (Australia)
Others		RoHS/WHQL
Data Rate (Max.) ^①		
5G SA Sub-6		DL 2.1 Gbps; UL 450 Mbps
5G NSA Sub-6		DL 2.5 Gbps; UL 650 Mbps
LTE		DL 1.0 Gbps; UL 200 Mbps
WCDMA		DL 42 Mbps; UL 5.76 Mbps
Interfaces		
(U)SIM		x 1
USB 2.0		x 1
USB 3.0/3.1		x 1
PCIe 3.0		x 1
PCM		x 1
Antenna		x 4
Voice		
VoLTE		Digital Audio and VoLTE (Voice over LTE) (Optional)

Notes:

- ①: The presented data rates are theoretical only, and the actual value depends on network conditions.
- *: Under development/in progress.

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Enhanced Features	
eSIM* (Optional)	●
DTMF*	●
DFOTA*	●
(U)SIM Card Detection	●
Drivers	
USB Serial Driver	Windows 7/8/8.1/10; Linux 2.6–5.4; Android 4.x/5.x/6.x/7.x/8.x/9.x/10
GNSS Driver	Android 4.x/5.x/6.x/7.x/8.x/9.x/10
RIL Driver	Android 4.x/5.x/6.x/7.x/8.x/9.x/10
NDIS Driver	Windows 7/8/8.1/10
MBIM Driver	Windows 10; Linux 3.18–5.4
GobiNet Driver	Linux 2.6–5.4
QMI_WWAN Driver	Linux 3.4–5.4
Electrical Features	
Supply Voltage Range	3.135–4.4 V, typical 3.7 V
Power Consumption	80 μ A @ Power down 4.2 mA @ Sleep 39 mA @ USB 2.0, Idle 54.5 mA @ USB 3.0, Idle

Notes:

1. *: Under development/in progress.
2. ●: supported.