VT-MOB-LTEMQ/1Q/4Q-PB

CAT M/1/4 Cellular Card
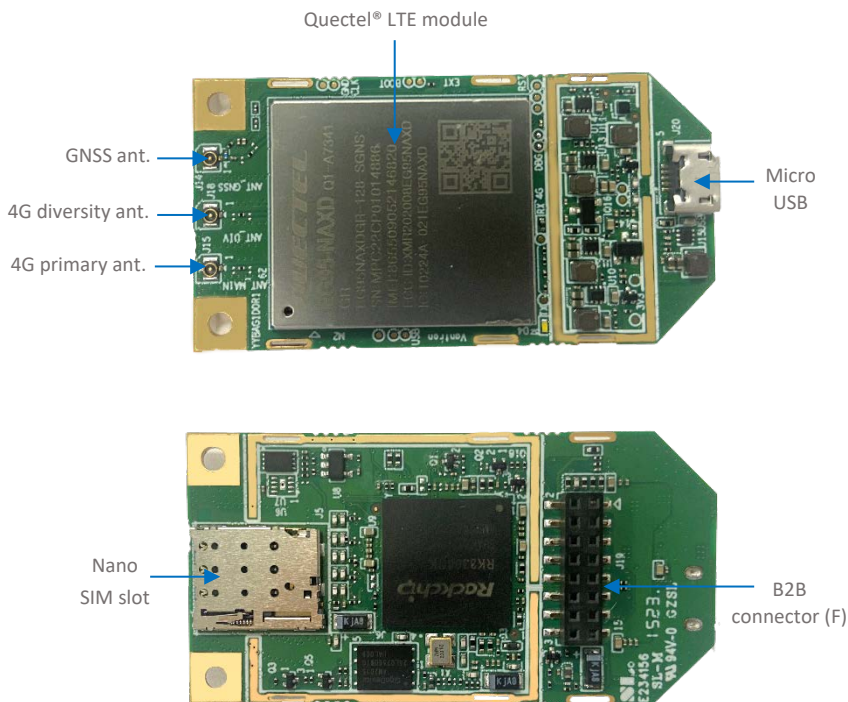

Product Brief Introduction

Vantron VT-MOB-LTEMQ/1Q/4Q-PB features an LTE CAT M/CAT 1/CAT 4 cellular card with an on-board Nano SIM slot, offering an optimized solution for M2M and IoT applications. The card is based on Quectel BG951A/EG91 NAX DGR-128-SGNS/EG95 NAXD (data only) module that supports multiple FDD bands and employs a compact SMT form factor for size-constrained applications.

VT-MOB-LTEMQ/1Q/4Q-PB boasts a comprehensive set of hardware-based security features and low power consumption technology. It offers industry-standard interfaces and is designed for a wide range of M2M applications such as wireless POS, smart metering, tracking, wearable devices, etc.
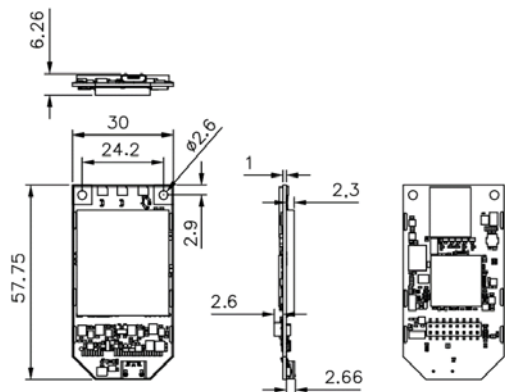
Exterior and Features

Quectel® LTE module

GNSS ant.

4G diversity ant.

4G primary ant.

Micro USB

Nano SIM slot

B2B connector (F)

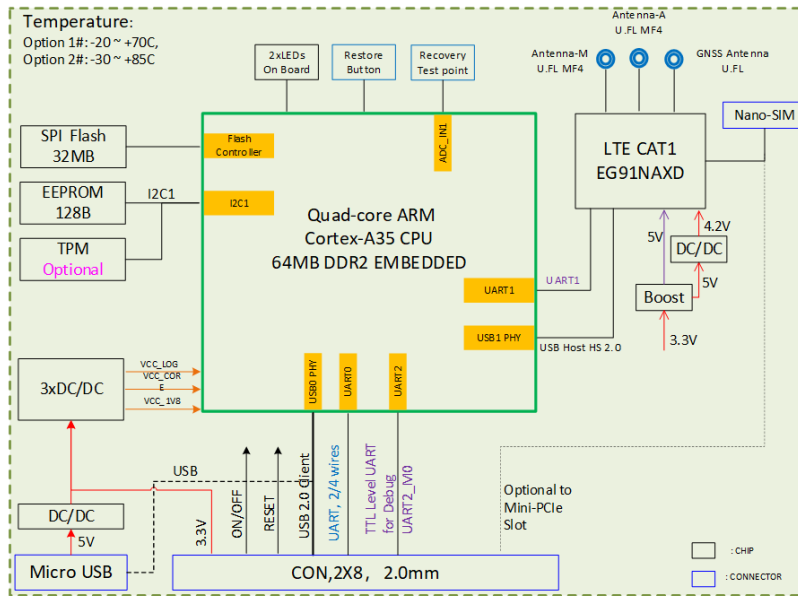| VT-MOB-LTEMQ/1Q/4Q-PB |
| --- |
| Improved security features |
| Compact size, easy integration |
| Low consumption |
| Lower latency, better performance |
| Wide temperature range |
| On-board Nano SIM slot |

▬ VT-MOB-LTEMQ/1Q/4Q-PB CAT M/1/4 Cellular Card Datasheet

VT-MOB-LTEMQ/1Q/4Q-PB			
System	CPU	RK3308GK, Quad-core ARM Cortex-A35, 1.2GHz (Max.)	
	Memory	DDR2 64MB (embedded)	
	Storage	32MB SPI flash for OS & program	
		2Kb EEPROM for parameters etc.	
	OS supported	Supports drivers for Windows 7/8/8.1/10/11, Linux, Android	
	LTE category	LTE CAT M/CAT 1/CAT 4	
	Frequency band	LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85	
	Max. Data transmission rates	CAT M: 588Kbps (downlink), 1119Kbps (uplink)	
		CAT 1: 10Mbps (downlink), 5Mbps (uplink)	
		CAT 4: 150Mbps (downlink), 50Mbps (uplink)	
	GNSS	GPS & Beidou (Accuracy: within 25m under theoretical conditions; scan interval: 15 min.)	
Interface	Module	Quectel BG951A for CAT M	
		Quectel EG91 NAX DGR-128-SGNS for CAT 1	
		Quectel EG95 NAXD (Data only) for CAT 4	
	I/Os	2 x 4G/LTE antenna (primary & diversity)	1 x Micro USB
		1 x GNSS antenna	1 x On-board Nano SIM slot
	Board to board connector (2 x 8 x 1.27mm)	1 x USB 2.0 Client for main CPU (Virtual USB Ethernet Port, Plug and Play)	
		1 x UART	
		3 x GPIO	
		1 x Power on signal	
		1 x Reset signal	
		1 x SIM signal (Optional)	
Security	TPM	ATMEL: ATECC508A-SSHDA-T/B (Optional)	
Power	Input	1.8V~5.5V DC, Typ. 3.3V or 5V	
	Consumption	Active mode: ~3.5W	
Mechanical	Dimensions	57.8mm x 30mm	
Environment Condition	Temperature	Operating: -20°C ~ +85°C (Optional: -30°C ~ +85°C)	
		Storage: -40°C ~ +105°C	
	Certificate	FCC, PTCRB	Carrier: Verizon / AT&T

▬ Product Outlines

Vantron | Embedded in your success, Embedded in your better life

World-leading provider of embedded/IoT products and solutions

Block Diagram

Cellular Card Stacked with a Connector Board

Cellular card

Connector board

Stacked configuration
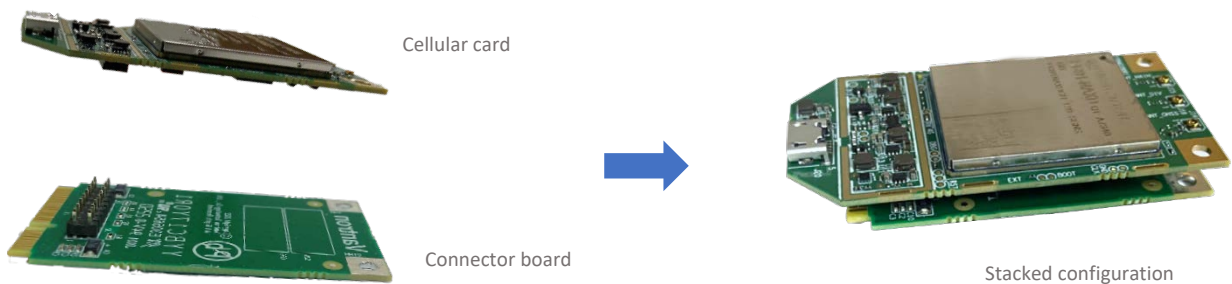
Company Profile

Since its establishment in 2002 by two Silicon Valley entrepreneurs, Vantron Technology has been at the forefront of the connected IoT devices and IoT platform solutions. Today, Vantron boasts a global customer base that includes several Fortune 500 companies. Its product lines cover intelligent edge hardware, IoT communication devices, industrial displays and BlueSphere cloud device management platforms.

With over 20 years of experience in R&D of intelligent edge hardware, Vantron has provided users with diverse embedded solutions featuring ARM and X86 architectures. Its offerings range from Linux to Windows, from embedded level to desktop level, and from gateways to servers. In addition, it provides users with system clipping, driver transplantation and other related services.