



Quectel EC200U Series LTE Standard Module

Product Overview

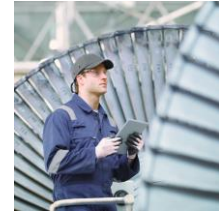
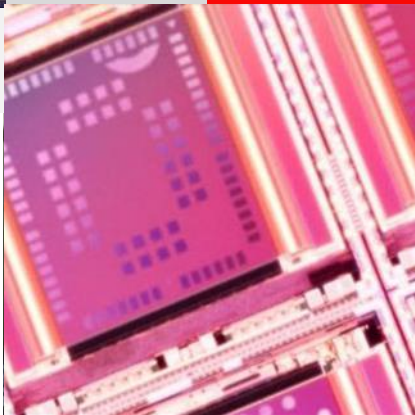
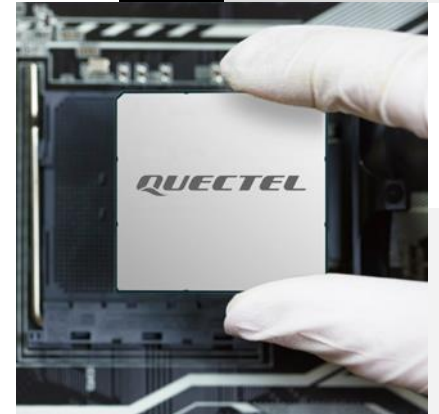
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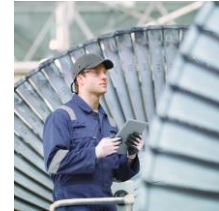
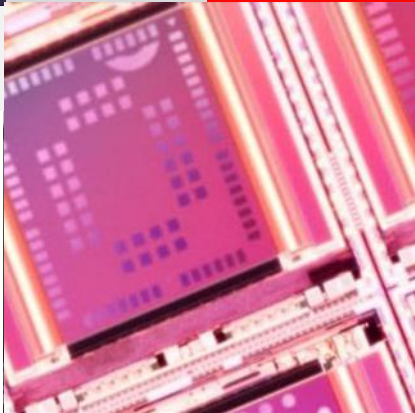
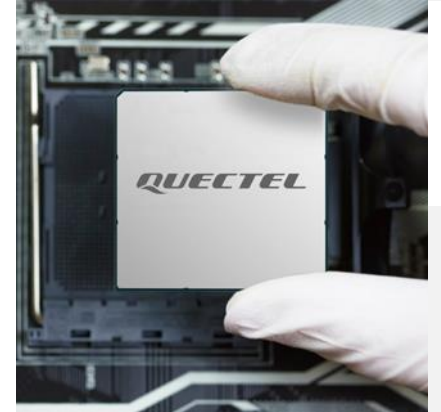
Highlights & Specifications

Development Timeline

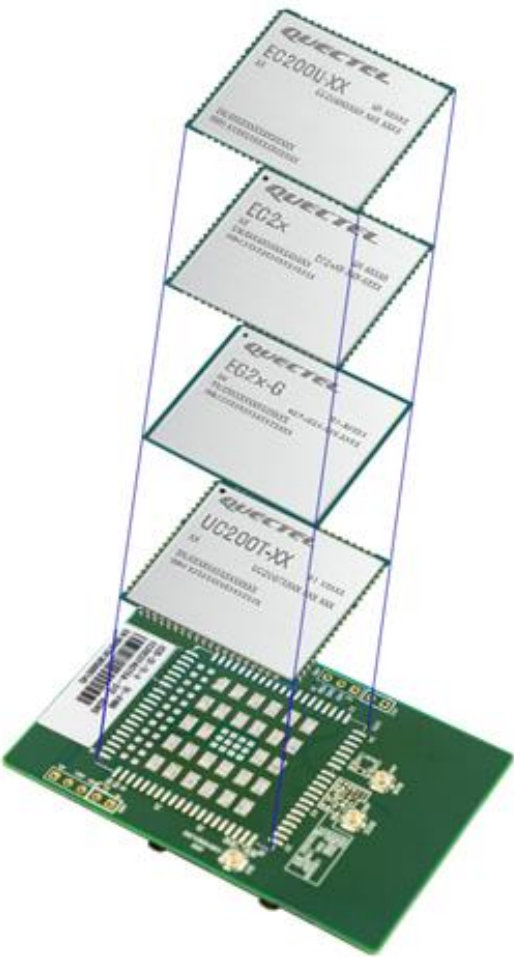
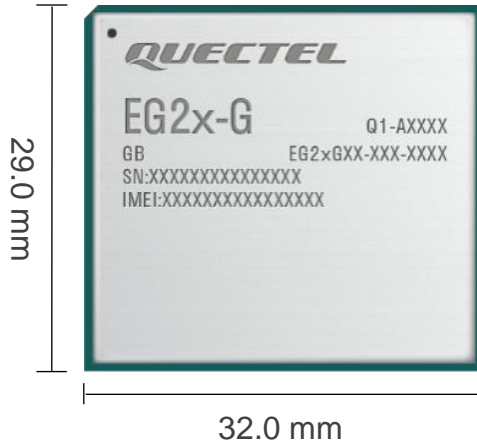
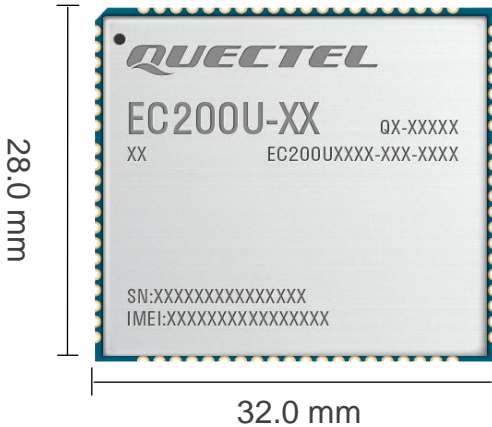
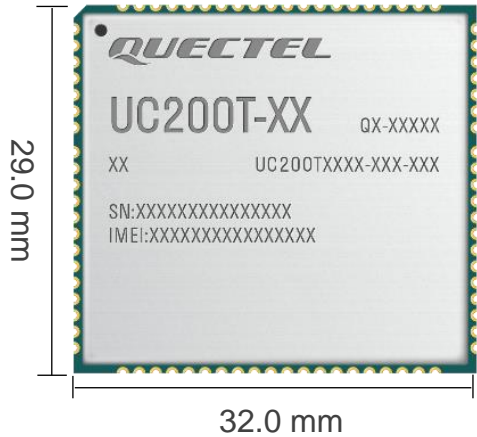
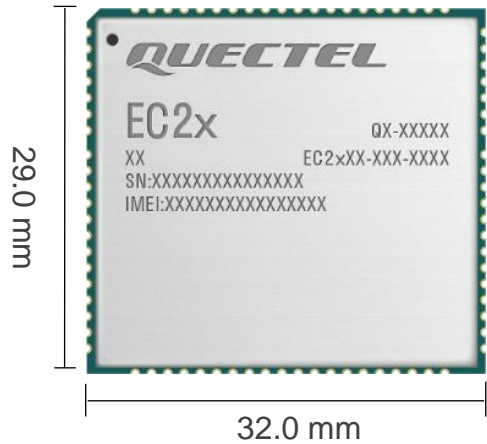
Technical Details

Applications

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EC200U Series Compatible Modules

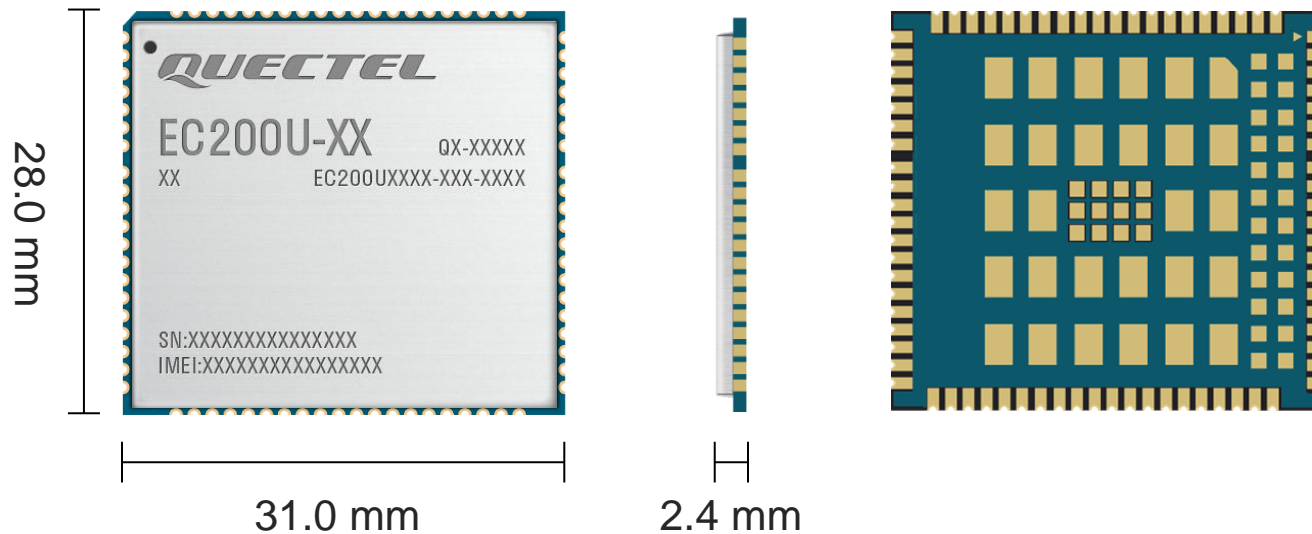


EC200U series module is compatible with Quectel LTE Standard
EC2x series/EG2x-G and UMTS/HSPA+ UC200T modules

EC200U Series Mechanical Dimensions



Multi-Mode LTE Module



Length: 28.0 mm (± 0.15 mm)
Width: 31.0 mm (± 0.15 mm)
Height: 2.4 mm (± 0.2 mm)
Weight: Approx. 4.3 g

EC200U Series Specifications



■ Multi-Mode LTE Cat 1 Module

28.0 mm × 31.0 mm × 2.4 mm
10 Mbps DL/ 5 Mbps UL

Variant		EC200U-CN	EC200U-EU
LTE	LTE-FDD	B1/ B3/ B5/ B8	B1/ B3/ B5/ B7/ B8/ B20/ B28
	LTE-TDD	B34/ B38/ B39/ B40/ B41	B38/ B40/ B41
UMTS	WCDMA	-	-
	TD-SCDMA	-	-
GSM/EDGE		B3/ B8	B2/ B3/ B5/ B8
GNSS		Optional	Optional
QuecLocator®		●	●
Analog Audio		●	●
Wi-Fi Scan		Optional	Optional
Bluetooth		Optional	Optional
VoLTE		●	●
FOTA		●	●
Power Supply		3.3–4.3 V, typ. 3.8 V	3.3–4.3 V, typ. 3.8 V
Region		China/ India	Europe
Certification		Regulatory: SRRC/ NAL/ CCC Carrier: China Mobile/China Unicom/China Telecom*	Regulatory: CE*/ RCM*

● means supported.
“-” means unsupported.
“*” means under planning.

EC200U Series Highlights



Highlights	Description
Hardware Interfaces	USB 2.0/ PCM/ Analog Audio/ (U)SIM/ UART/ ADC/ I2C/ LCD/ SDIO/ SPI/ Keyboard/ RESET/ PWRKEY/ Antenna Interface(main antenna, GNSS Antenna, Wi-Fi Scan/Bluetooth antenna)
USB Serial Driver	Windows 7/8/8.1/10, Linux 2.6–5.12, Android 4.x–11.x
GNSS Driver	Android 4.x–11.x
RIL Driver	Android 4.x–11.x
USB RNDIS Driver	Windows 7/8/8.1/10, Linux 2.6–5.12
USB ECM Driver	Linux 2.6–5.12
Abundant Protocols	TCP/ UDP/ PPP/ NITZ/ PING/ FILE/ MQTT/ NTP/ HTTP/ HTTPS/ SSL/ FTP/ FTPS/ CMUX/ MMS
Enhanced Features	FOTA (Firmware Upgrade Over-The-Air) (U)SIM card detection SDIO interface for SD card and Wi-Fi
SMS	Text and PDU mode Point-to-point MO and MT SMS cell broadcast SMS storage: ME&SM
QuecOpen®	No need for MCU in peripheral circuits
Audio	Support 1 analog audio + 1 digital audio output GSM: HR/FR/EFR/AMR/AMR-WB Support echo cancellation and noise suppression



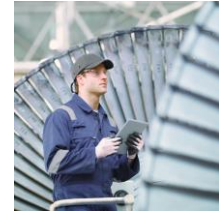
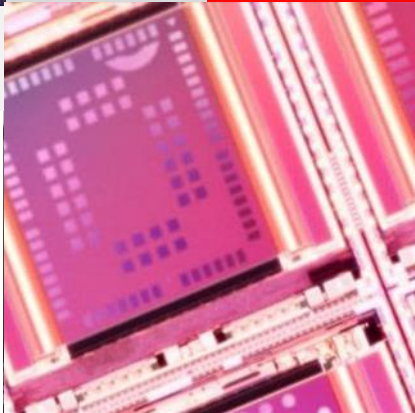
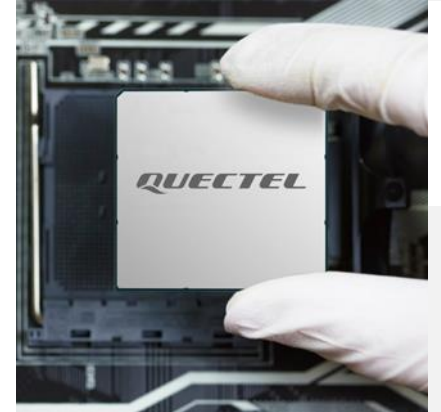
Highlights & Specifications

Development Timeline

Technical Details

Applications

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EC200U-CN Timeline



2021									
Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.

Project Stage

EC200U-CN MP

Carrier Certification

SRRRC/ NAL/ CCC



Regulatory Certification

China Mobile/ China Unicom Completed



Others

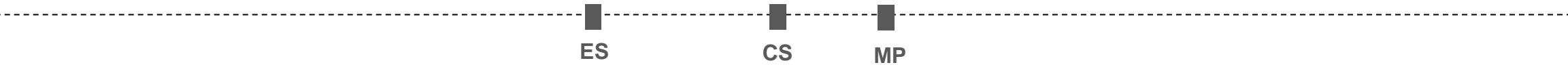
WHQL

EC200U-EU Timeline



2021											
Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.

Project Schedule



ES: Engineering samples ready. Basic functions are available for customers' simple demo purpose.
CS: Commercial samples ready. Stable hardware design and quite stable software design. New software features can be added upon request.
MP: Hardware and software ready for mass production. For certification status, please refer to the "certification schedule".

Regulatory Certification



Others

WHQL



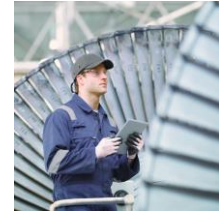
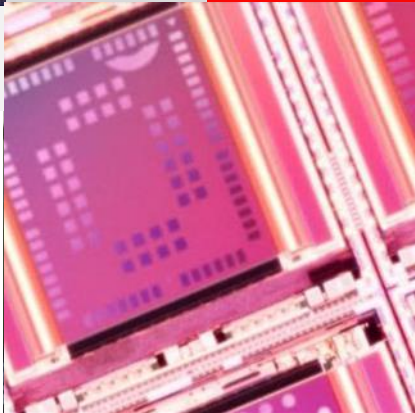
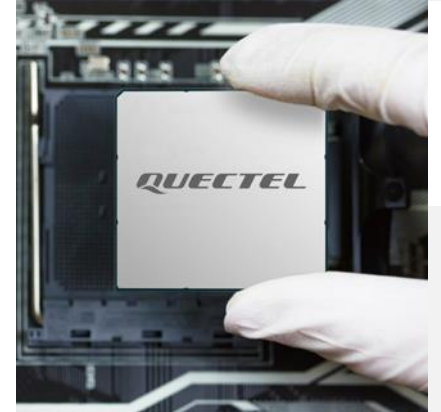
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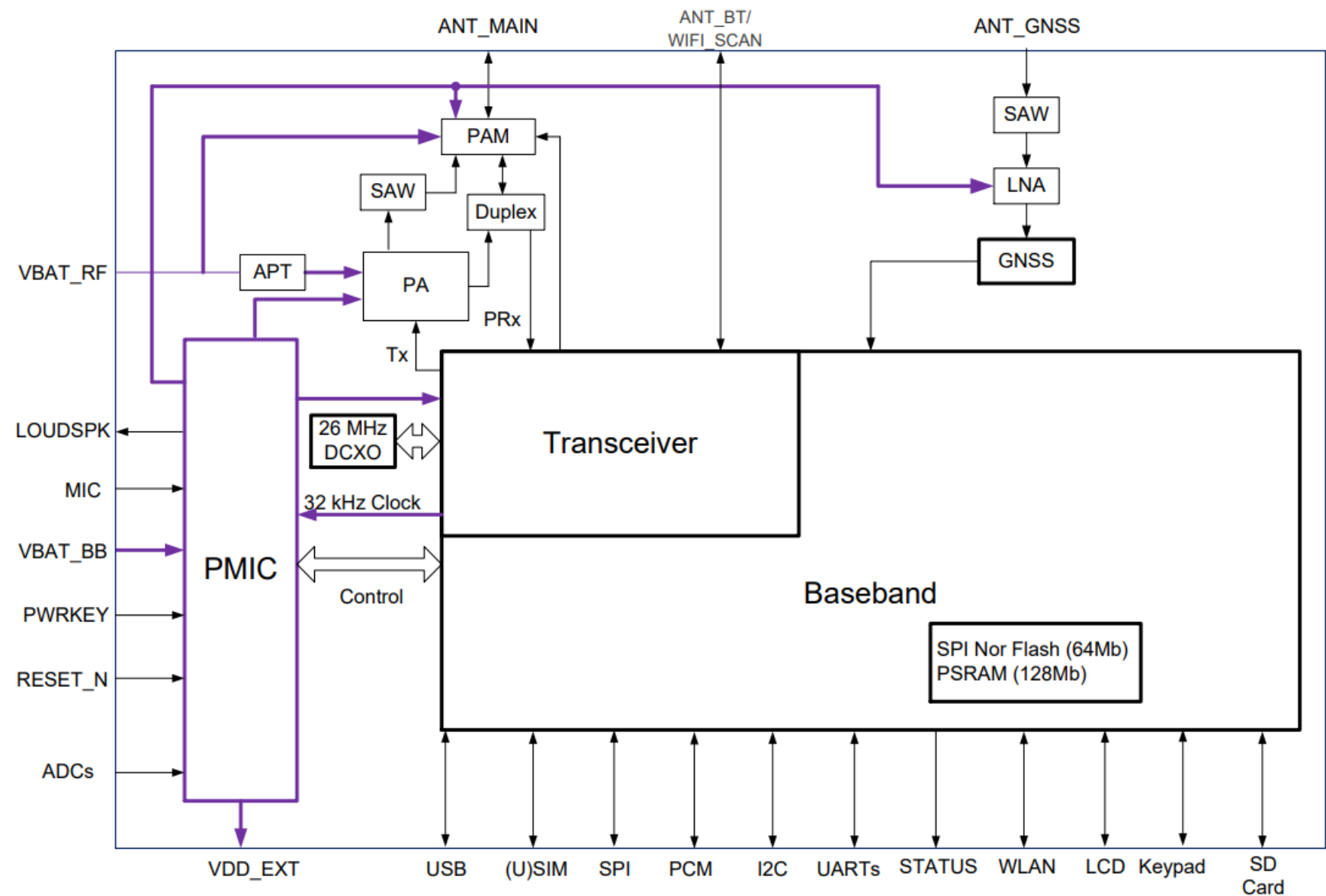
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Hardware Architecture



Software Advantages



USB Serial Driver

- Windows 7/8/8.1/10
- Linux 2.6–5.12
- Android 4.x–11.x

Quality Guarantee

- Reliable network protocols
- Steady flash protection mechanism
- Superior audio algorithms
- Backup recovery mechanism

Special Features

- QuecOpen®
- QuecPython®
- QuecLocator®

GNSS & RIL & USB RNDIS & USB ECM Drivers

- GNSS Driver: Android 4.x–11.x
- RIL Driver: Android 4.x–11.x
- USB RNDIS Driver: Windows 7/8/8.1/10, Linux 2.6–5.12
- USB ECM Driver: Linux 2.6–5.12

Flexible Applications

- (U)SIM card detection
- DTMF
- VoLTE
- GNSS (Optional)

Enhanced AT Commands

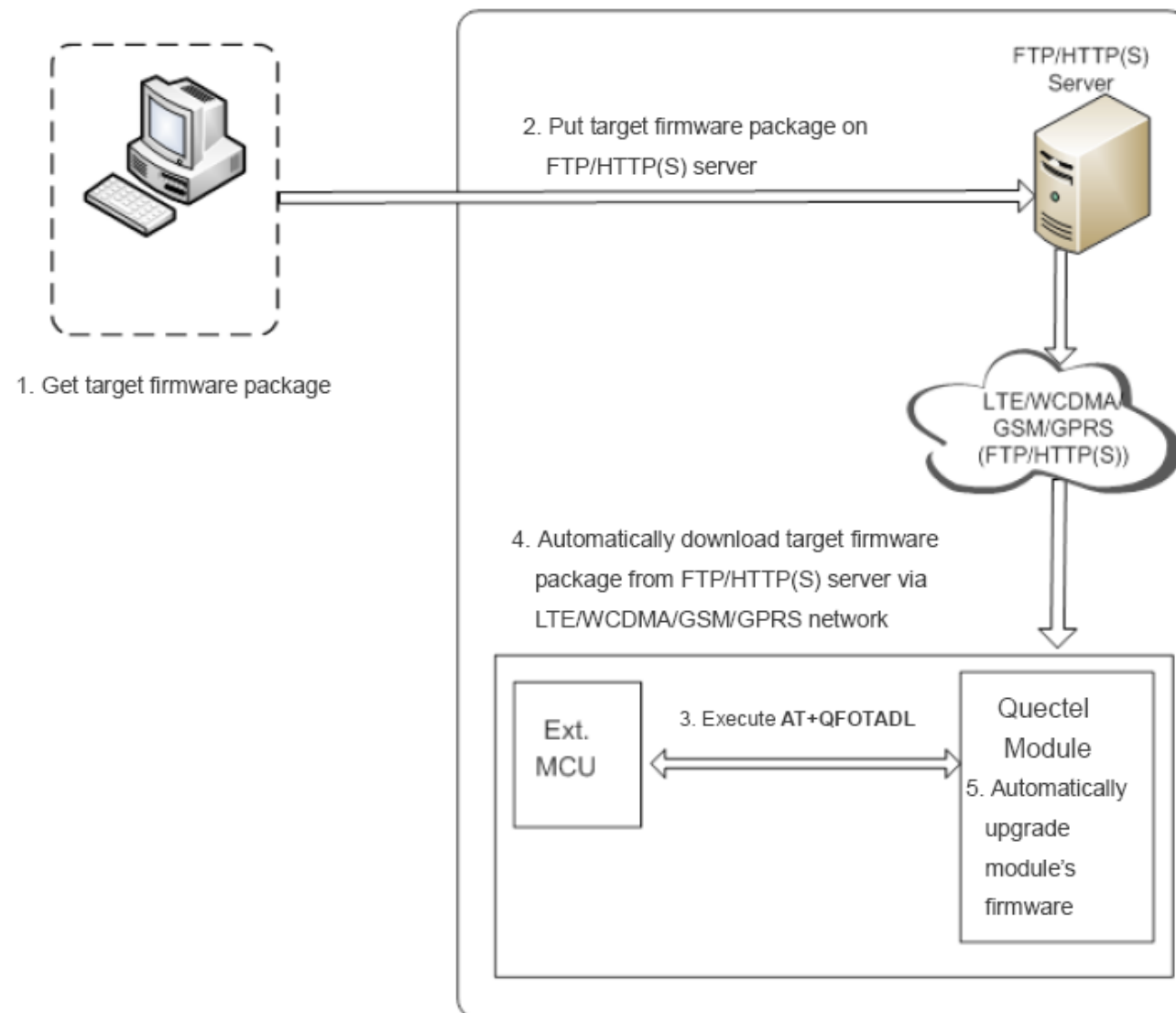
- 3GPP TS 27.007 (GSM 07.07)
- 3GPP TS 27.005 (GSM 07.05 SMS)
- Quectel Enhanced AT Commands

FOTA

FOTA refers to Firmware Upgrade Over-The-Air. With this function, the firmware can be upgraded to a new version over LTE/WCDMA/GSM/GPRS networks and also reverted to the old version.

Firmware Upgrade Process via FOTA

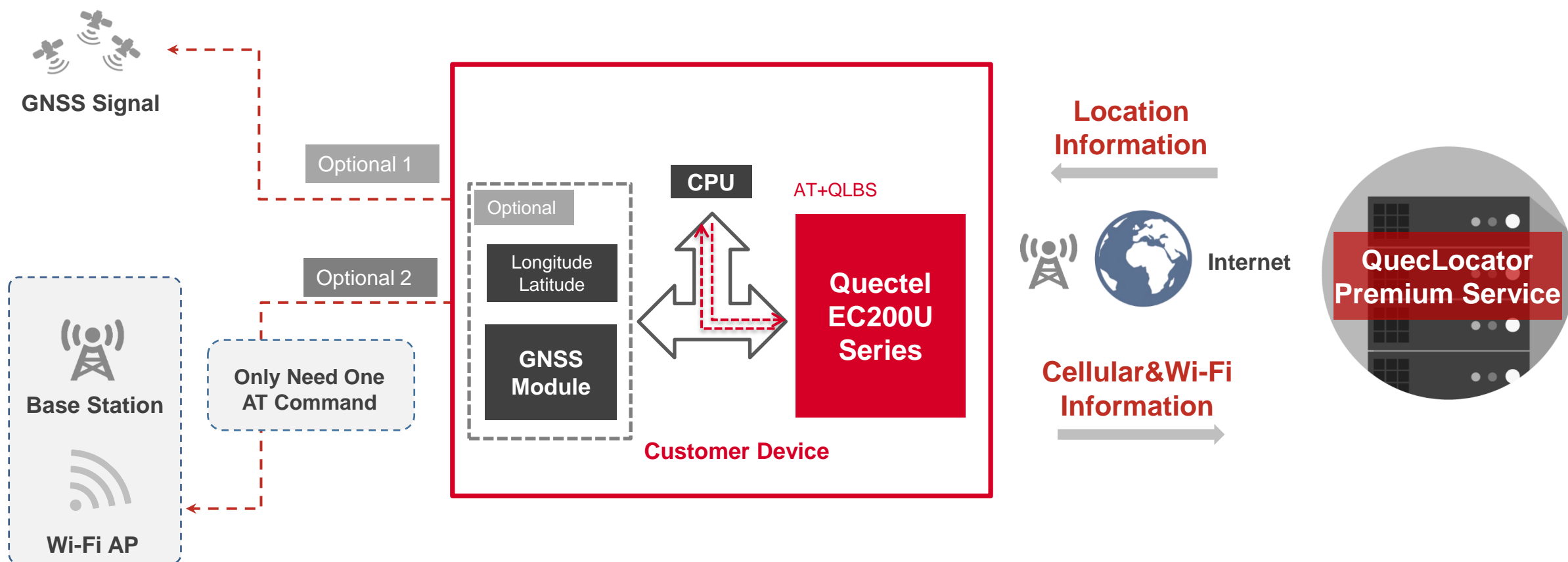
- Get Target Firmware Package.
- Put Target Package on Server.
- Execute AT+QFOTADL Command.
- Automatically Download and Upgrade Firmware.



QuecLocator[®] Working Process



QuecLocator[®] is an easy and reliable positioning service providing secure and accurate positioning **Anytime, Anywhere.**



NOTE: There is no need for extra GNSS modules when using QuecLocator[®].

Support Package - Technical Materials & EVB Kit

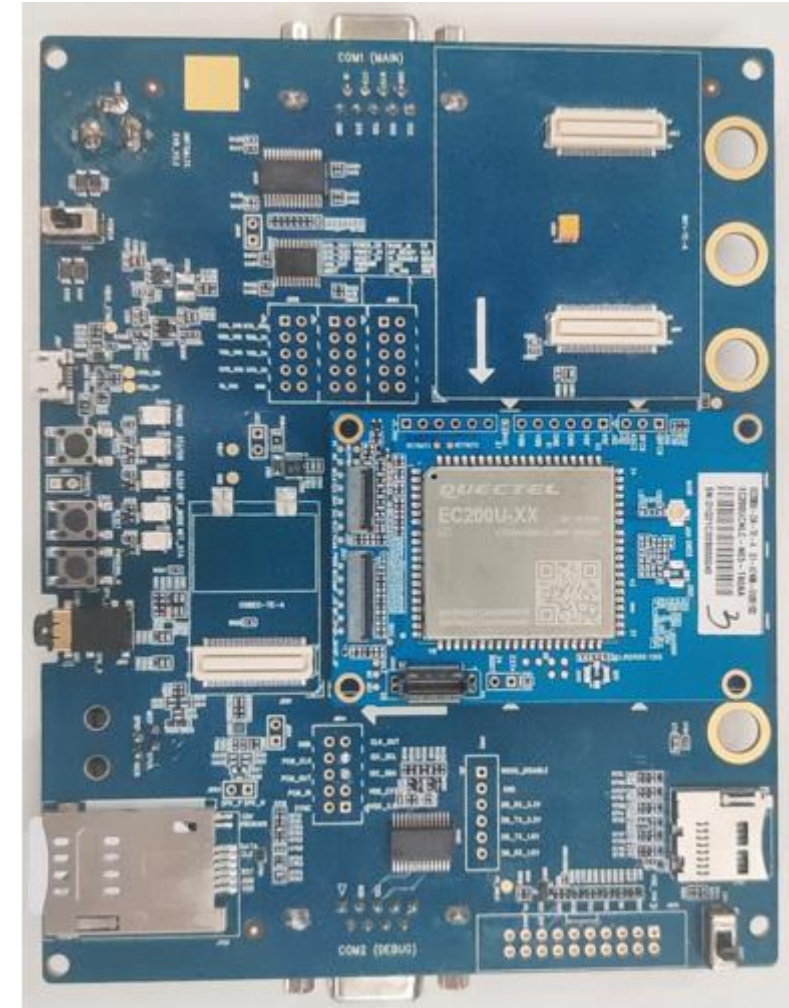


Technical Materials Package

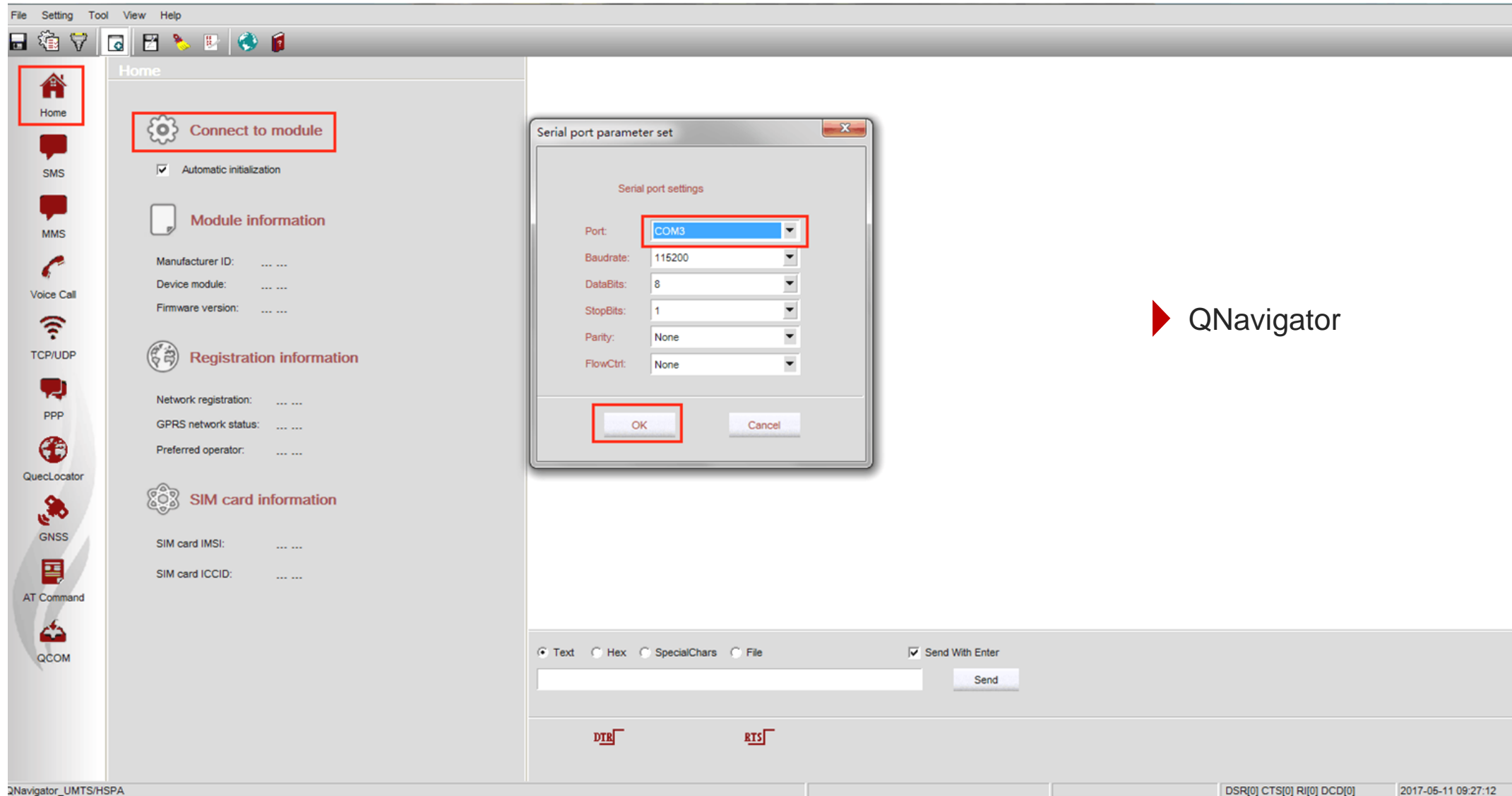
- Hardware & software documents
- Debug tools, download tools, test tools, EVB kit & USB drivers
- Approvals & test reports
- QNavigator

Development Tool (UMTS<E EVB Kit)

- | | |
|---------------------------------|-----------------------|
| ▪ Connectors | ▪ Auxiliaries |
| a) Power supply connectors | a) Network status LED |
| b) USB connector | b) Power key |
| c) UART connectors | c) Reset key |
| d) (U)SIM card connector | d) Test points |
| e) SD card connector | |
| f) Digital and audio connectors | |



Support Package - QNavigator



► QNavigator

Technical Support Team





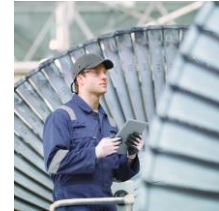
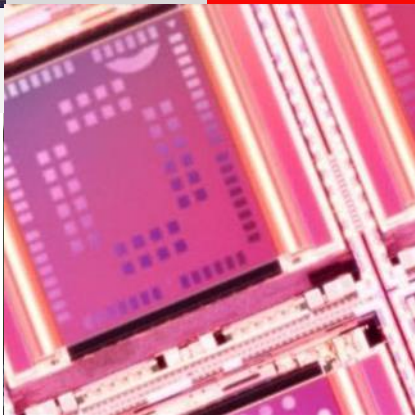
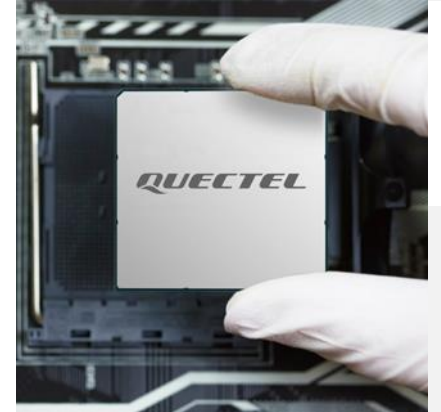
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Target Applications



Telematics & Transport

- Automotive OEM
- Vehicle Tracking
- Container Tracking
- Ship Tracking
- Fleet Management
- OBD
- DVR
- Insurance Box



Energy

- Electricity Meter
- Gas Meter
- Water Meter
- Heat Meter
- Smart Grid
- Wind Turbines
- Solar Panel
- Charging Pile



Payment

- Wireless POS
- Cash Register
- ATM
- Vending Machine
- Top-up Machine



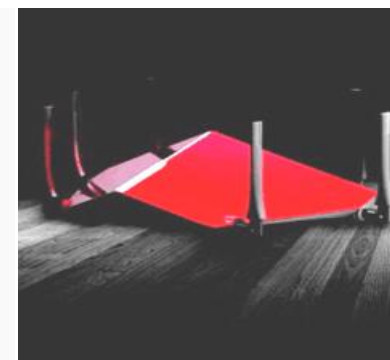
Security

- Alarm
- Camera
- Video Surveillance
- Intrusion Detection
- Smoke Detector
- Asset Protection



Smart City

- Street Lighting
- Sharing Economy
- Traffic Light
- Elevator
- Digital Signage
- Advertisement Display
- LED Lighting
- Garbage Bin Monitoring
- Parking



Gateway

- DTU
- Consumer Router
- Industrial Router
- VoIP
- Server
- Wi-Fi Hotspot



Industry

- Industrial PDA
- Rugged Tablet PC
- Pipeline Management
- UAV
- Robot
- Flow Meter
- Refrigerator
- Industrial Control
- Industrial Monitoring



Life & Healthcare

- Personal Tracker
- Household Appliances
- Pet Tracker
- Wearables
- Elderly Monitoring
- Remote Medical Equipment
- Glucometer
- Blood Pressure Monitor
- Gambling Machine



Agriculture & Environment

- Trail Camera
- Food Traceability
- Farm Machinery
- Irrigation
- Meteorological Station
- Wildlife Tracking
- Environment Monitoring
- Pollution Monitoring



The number one cellular module vendor in the world and a leading GNSS module supplier

- Unbeatable choice from the broadest module portfolio in the world
- The highest quality products for the best possible prices
- Superb support with the largest R&D team in the industry
- Continuous innovation – first to market with 5G, LPWA, CV2X, snapdragon
- A passionate, dedicated team of “Quectelers” ensure our customers always come first

Thank You

Build a Smarter World

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