



QUECTEL

**Quectel
CC200A-LB
Satellite Communication Module**

Introduction

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Duty of Confidentiality

The Receiving Party shall keep confidential all documentation and information provided by Quectel, except when the specific permission has been granted by Quectel. The Receiving Party shall not access or use Quectel's documentation and information for any purpose except as expressly provided herein. Furthermore, the Receiving Party shall not disclose any of the Quectel's documentation and information to any third party without the prior written consent by Quectel. For any noncompliance to the above requirements, unauthorized use, or other illegal or malicious use of the documentation and information, Quectel will reserve the right to take legal action.

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Key Features

Specifications & Timeline

Satellite Solution

Typical Applications

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Satellite Module Portfolio



Proprietary



CC200A-LB

- ORBCOMM RFIC
- Inmarsat GEO satellite L-band
- GNSS L1
- 37.0 × 38.0 × 3.35 mm

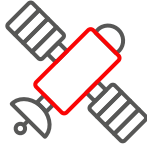
CC200A-LB Key Features



Global Satellite Connectivity



Global Coverage:
Inmarsat GEO constellation



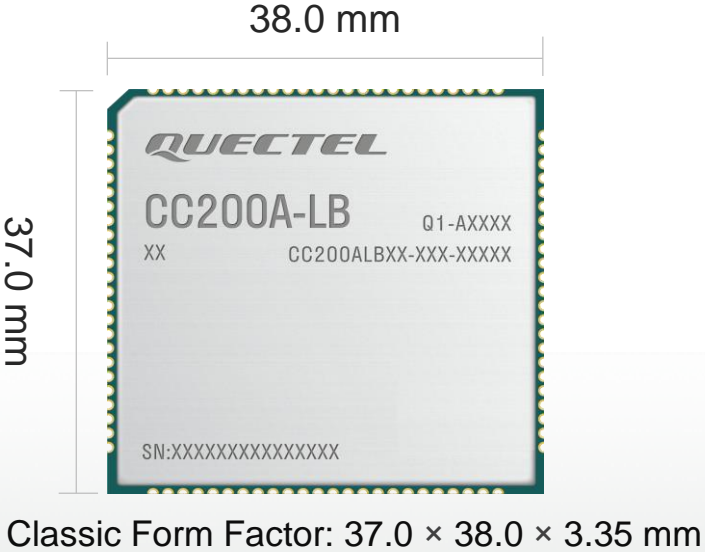
Reliable Connectivity
Two-way communication
IDP service network



Multi-Constellation GNSS
GPS/ GLONASS/ Galileo/ BDS



Low Power Consumption:
Various low power mode
Scheduled receive intervals



Low Latency
Ultra low latency of about 20 seconds for 100-byte message



AT Commands
AT command set



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CC200A-LB Specifications



Variant		CC200A-LB
Region		Global
Satellite Service		<ul style="list-style-type: none"> • Inmarsat GEO; • Two-way communication; • IsatData Pro (IDP)
Satellite Band		L-band
Frequency	L-Band	<ul style="list-style-type: none"> • Tx: 1626.5–1660.5 MHz, 1668–1675 MHz • Rx: 1518–1559 MHz
Max Message Size	From-Mobile Message	6.4 Kbytes
	To-Mobile Message	10 Kbytes
Typical Latency	100 Bytes Message Size	IDP: 12 s/ 20 s (Rx/Tx)
	1 Kbytes Message Size	IDP: 70 s/ 40 s (Rx/Tx)
	10 Kbytes Message Size	IDP: 5 min/ 8 min (Rx/Tx)
Communication Interface		UART
Antenna Interface		× 1 (Satellite and GNSS sharing)
GNSS		GPS L1/ GLONASS L1/ Galileo E1/ BDS B1
Certification	Satellite	Inmarsat Type Approval*
	Regulatory	FCC*/ IC*/ CE*/ RCM*
Project Stage		Pre-ES

CC200A-LB Timeline

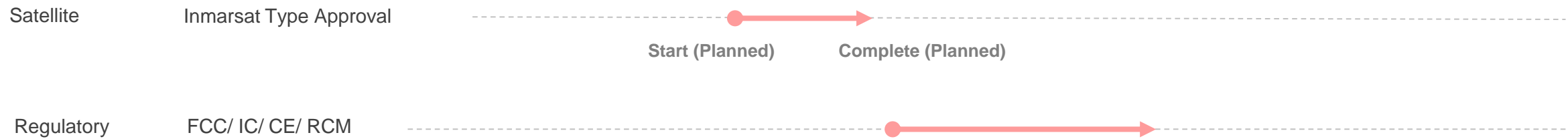


2022			2023								
Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.

Project Schedule



Certification



*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".*



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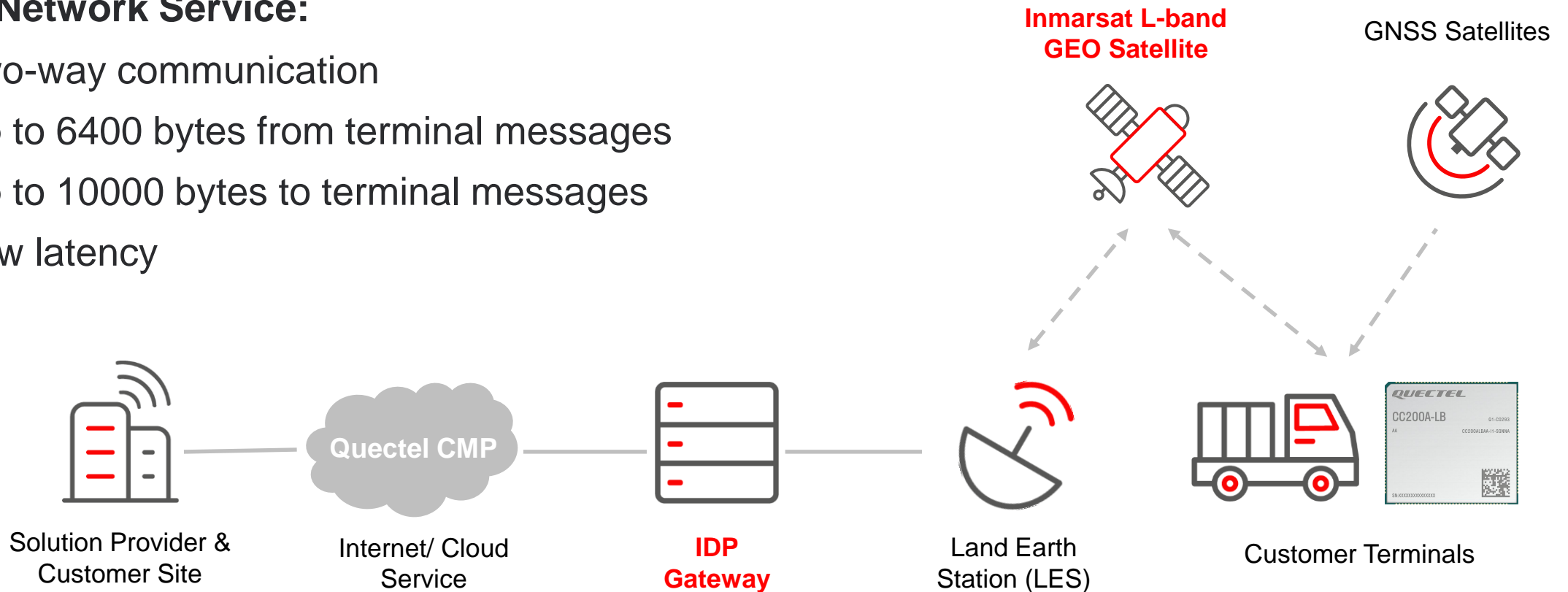
IDP Network



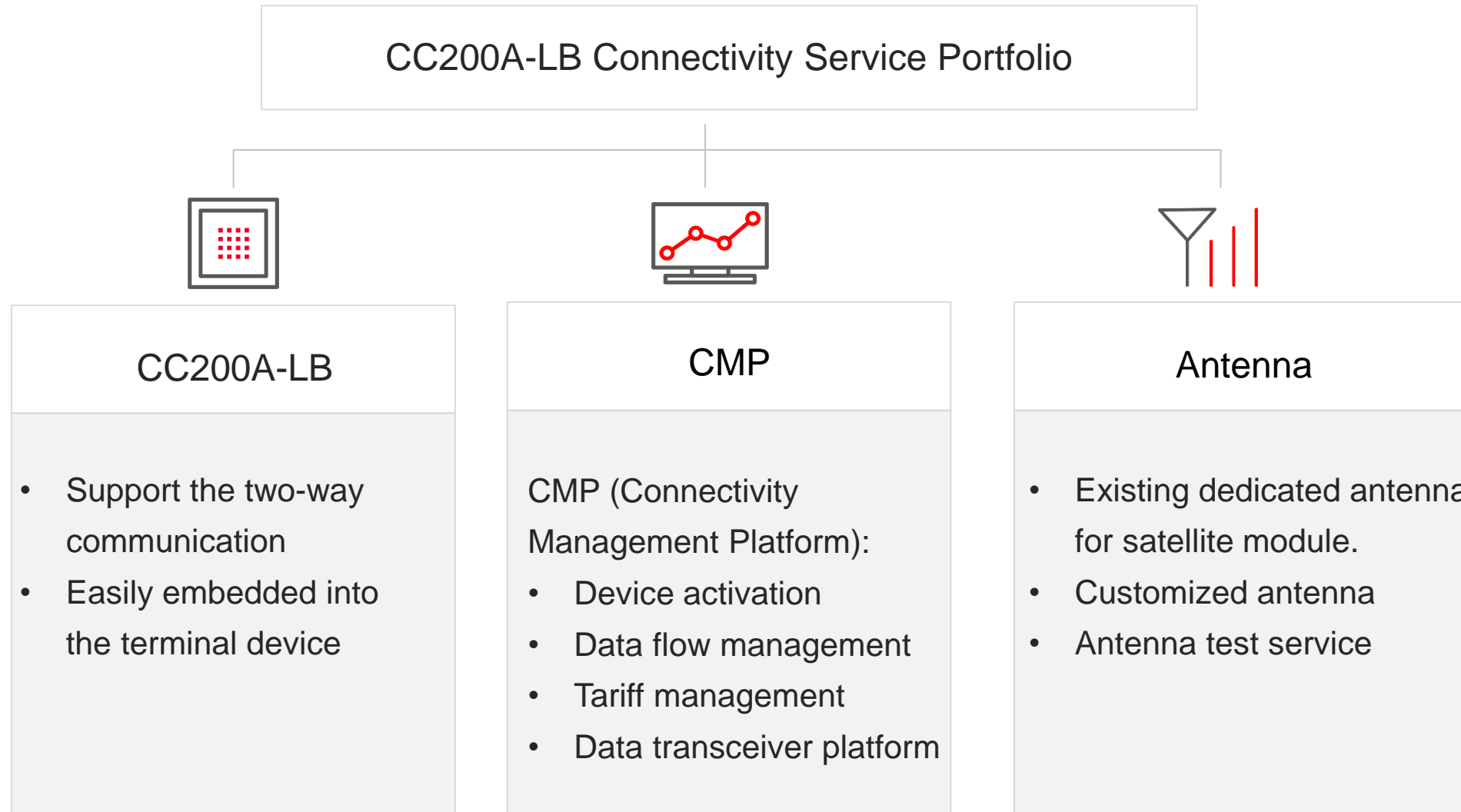
IDP network service is a two-way communications protocol offering near-real time message transfer.

IDP Network Service:

- Two-way communication
- Up to 6400 bytes from terminal messages
- Up to 10000 bytes to terminal messages
- Low latency



For the terminal device based on CC200A-LB module, Quectel can provide the following service portfolio.

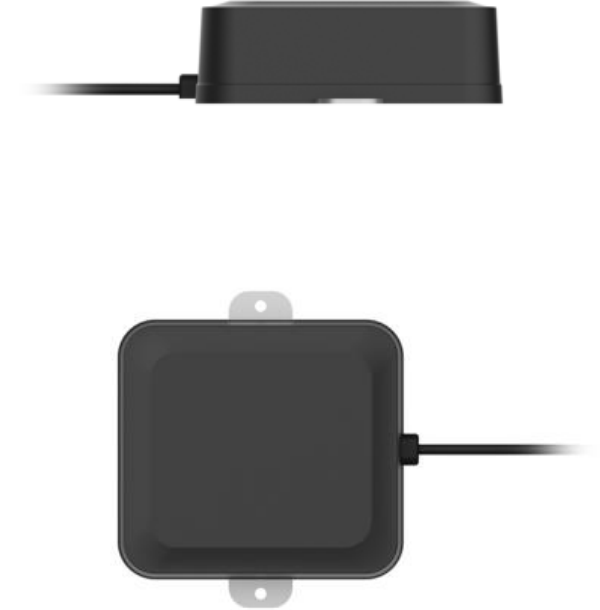


Antenna Specifications



The following is the existing dedicated antenna for CC200A-LB module designed by Quectel, which supports satellite-band and GNSS frequency.

Quectel OC Number	YEGM023AA	
Passive Electrical Specifications		
Frequency Range	L-Band	<ul style="list-style-type: none">● Tx: 1626.5–1660.5 MHz, 1668–1675 MHz● Rx: 1518–1559 MHz
	GNSS	GPS L1/ GLONASS L1/ Galileo E1/ BDS B1 (1559–1606 MHz)
Polarization Type	RHCP	
Impedance	50 Ω	
VSWR	< 2	
Axial Ratio	< 3 dB	
Gain	< 4 dBic	
Mechanical Specifications		
Antenna Size (mm)	75 × 84 × 25	
Casing	ABS	
Cable Type & Length	RG174 Black & 500 mm	
Connector Type	SMA Male (center pin)	
Working Temperature	-30 °C to +80 °C	
Weight	Typ.: 112 g	
Color	Black	
Mounting Type	Screw + Magnetic	





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Typical Application



Transportation

- Vehicle Tracking
- Asset Tracking
- Chassis Tracking
- Container Tracking



Energy

- Oil & Gas Pipe Line Monitor
- Mining
- Smart Grid



Maritime

- Vessel Connection
- Maritime Buoys



Heavy Industry

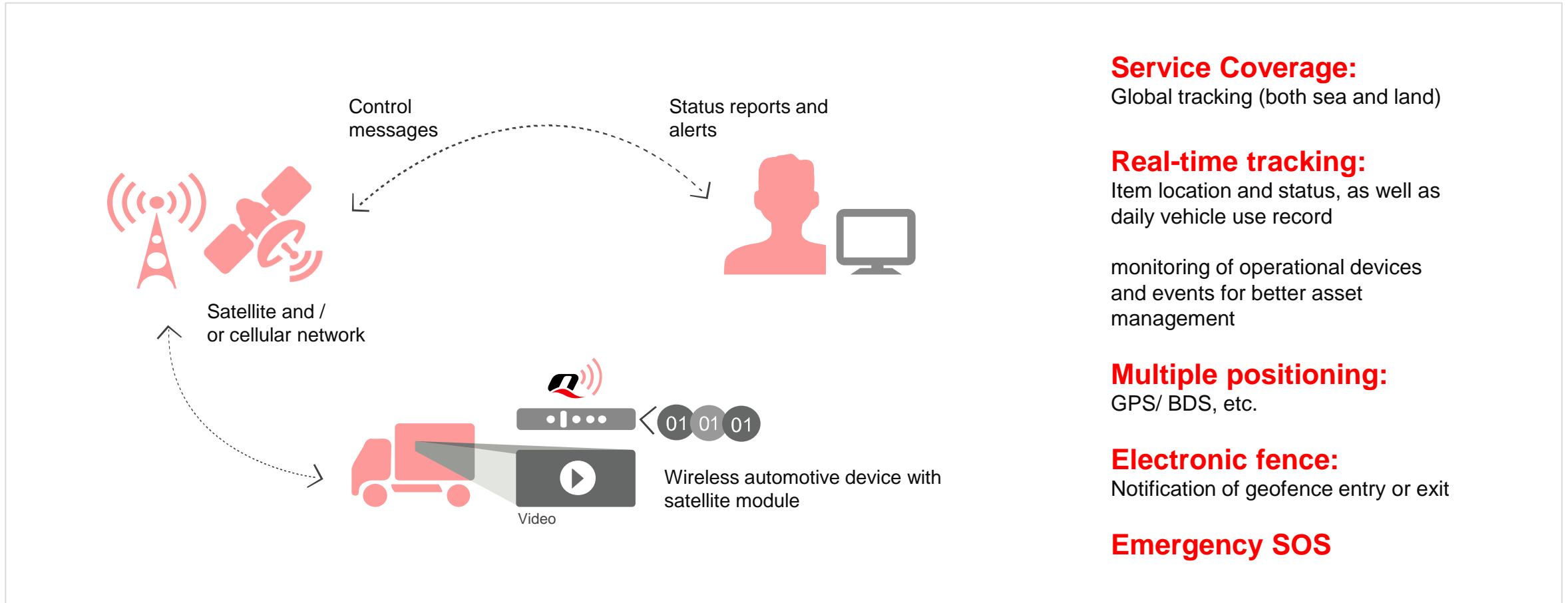
- Heavy Equipment Monitor
- Construction Fleet Management



Agriculture

- Smart Agriculture
- Environmental Monitor

Typical Application — Tracker



Service Coverage:

Global tracking (both sea and land)

Real-time tracking:

Item location and status, as well as daily vehicle use record

monitoring of operational devices and events for better asset management

Multiple positioning:

GPS/ BDS, etc.

Electronic fence:

Notification of geofence entry or exit

Emergency SOS



We are a global IoT solutions provider, backed by outstanding support and services, to deliver a smarter world.

- Unbeatable choice from the broadest module portfolio in the world
- High quality range of off-the-shelf and customized antennas
- Providing Connectivity-as-a-Service
- Superb support with the largest R&D team in the industry
- Continuous innovation – in 5G, LPWA, CV2X, Smart Modules
- A passionate, dedicated team of “Quectelers” ensure our customers always come first

Thank You

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