

NEWSPACE MARKET · COMPANY PROFILE



# Guodian Gaoke (Tianqi Satellite)

China · founded 2015 · [guodiangaoke.com](http://guodiangaoke.com)

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8

PRODUCTS

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as of 20 August 2026



## Guodian Gaoke (Tianqi Satellite)

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Guodian Gaoke (Tianqi Satellite) is a commercial aerospace company based in Beijing, China, specializing in the design, development, operation, and application of low-Earth orbit (LEO) satellite constellation systems. The company operates China's first LEO satellite Internet of Things (IoT) constellation, named "Tianqi Constellation," which provides global, near real-time, and all-weather communication services. The constellation currently comprises 38 satellites in orbit, with a total of 41 satellites launched. These satellites operate at an orbital altitude of 900 kilometers and utilize the UHF communication band, supporting text messages, voice messages, and image communication services. Guodian Gaoke offers integrated "space-air-ground-sea" IoT data communication services for global users, applicable to various digital economy scenarios in sectors such as energy, forestry, agriculture, emergency response, water conservancy and electric power, petroleum, marine, and ecological environment. Additionally, it supports direct-to-satellite connectivity for consumer-grade electronic products like handheld devices, automobiles, walkie-talkies, and wearable devices. The company holds over 20 core qualifications, including LEO satellite frequency licenses, telecommunications operating licenses, and aerospace launch licenses, and has been approved as China's first commercial satellite IoT experimental enterprise. It is recognized as a national-level "specialized, refined, distinctive" small giant enterprise, a national intellectual property advantage enterprise, and a Beijing manufacturing single champion enterprise.

This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

# Product catalogue



GUODIAN GAOKE (TIANQI SATELLITE)

Antenna-Integrated Terminal TQZD-10

Compact all-in-one Tianqi satellite IoT terminal with integrated antenna, IP67, magnet mount.

|                  |                                         |
|------------------|-----------------------------------------|
| Message size     | Max 120 bytes per message               |
| Frequency band   | UHF                                     |
| TX power         | ≥30 dBm                                 |
| RX sensitivity   | -125 dBm                                |
| GNSS bands       | GPS L1 1575.42 MHz; BDS B1 1561.098 MHz |
| Supply voltage   | 8~38 V                                  |
| TX current (12V) | ≤400 mA                                 |

price on request



GUODIAN GAOKE (TIANQI SATELLITE)

Dual-Mode Emergency Rescue Terminal Alarm-02 (Tianqi + AIS)

Dual Tianqi+AIS rescue beacon: satellite global reach + 4 nm AIS ship range, IP67, 72h battery.

|                         |                                         |
|-------------------------|-----------------------------------------|
| Tianqi communication    | Short messages with time and position   |
| Tianqi frequency band   | UHF                                     |
| Tianqi TX power         | ≥30 dBm                                 |
| AIS frequencies         | 161.975 MHz, 162.025 MHz                |
| AIS communication range | >4 nautical miles                       |
| GNSS systems            | BDS/GPS dual-constellation              |
| GNSS bands              | GPS L1 1575.42 MHz; BDS B1 1561.098 MHz |

price on request



GUODIAN GAOKE (TIANQI SATELLITE)

Personal Emergency Rescue Terminal Alarm-01

Personal Tianqi satellite distress beacon: 72h battery, one-touch activation, IP67, 125×50×30 mm.

|                              |                                         |
|------------------------------|-----------------------------------------|
| Tianqi communication         | Short messages with time and position   |
| Frequency band               | UHF                                     |
| TX power                     | ≥30 dBm                                 |
| GNSS systems                 | BDS/GPS dual-constellation              |
| GNSS bands                   | GPS L1 1575.42 MHz; BDS B1 1561.098 MHz |
| GNSS acquisition sensitivity | -147 dBm                                |
| GNSS tracking sensitivity    | -162 dBm                                |

price on request



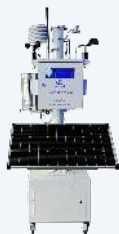
GUODIAN GAOKE (TIANQI SATELLITE)

Refrigerated Container Monitoring Terminal

Dual Tianqi+4G reefer container monitoring terminal: cold chain tracking, remote control, IP-rated.

|                        |                                       |
|------------------------|---------------------------------------|
| Network                | Tianqi satellite + 4G global cellular |
| Communication protocol | MQTT                                  |
| Positioning            | Satellite GNSS + LBS                  |
| Bluetooth              | 5.1                                   |
| Supply voltage         | AC/DC 24V                             |
| Operating temperature  | -20°C ~ +60°C                         |
| Service life           | >5 years                              |

price on request



#### GUODIAN GAOKE (TIANQI SATELLITE)

##### Tianqi Automatic Weather Monitoring Station

Solar-powered 7-parameter weather station with Tianqi satellite+4G dual-mode comms — no cellular needed.

|                |                                                                                                 |
|----------------|-------------------------------------------------------------------------------------------------|
| PM2.5 range    | 0~1000 $\mu\text{g}/\text{m}^3$ , resolution 0.1 $\mu\text{g}/\text{m}^3$ , accuracy $\pm 15\%$ |
| PM10 range     | 0~2000 $\mu\text{g}/\text{m}^3$                                                                 |
| Wind direction | 0~360°, resolution $\pm 1^\circ$                                                                |
| Wind speed     | 0~70 m/s, resolution $\pm 0.1$ m/s                                                              |
| Temperature    | -40~+60°C, accuracy $\pm 0.5^\circ\text{C}$                                                     |
| Humidity       | 0~95% RH, accuracy $\pm 3\%$ RH                                                                 |
| Rainfall       | 0~999.9 mm, resolution 0.2 mm, accuracy $\pm 4\%$ , max intensity 4 mm/min                      |

price on request



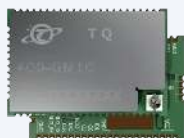
#### GUODIAN GAOKE (TIANQI SATELLITE)

##### Tianqi IoT Gateway Terminal TQZD-08

Industrial Tianqi satellite IoT gateway with RS485/Modbus, dual BDS/GPS, IP65 — for remote monitoring.

|                              |                                         |
|------------------------------|-----------------------------------------|
| Message size                 | Max 120 bytes per message               |
| Frequency band               | UHF                                     |
| TX power                     | $\geq 30$ dBm                           |
| RX sensitivity               | -132 dBm                                |
| GNSS bands                   | GPS L1 1575.42 MHz; BDS B1 1561.098 MHz |
| GNSS acquisition sensitivity | -147 dBm                                |
| GNSS tracking sensitivity    | -162 dBm                                |

price on request



#### GUODIAN GAOKE (TIANQI SATELLITE)

##### Tianqi LEO IoT Constellation

China's first LEO satellite IoT constellation: 38 satellites at 900 km delivering near-real-time global UHF connectivity.

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Constellation size | 38 satellites                                            |
| Orbit              | ~900 km LEO                                              |
| Frequency          | UHF                                                      |
| Service            | Near-real-time global IoT messaging: text, voice, images |
| Coverage           | Global, all-weather                                      |

price on request



#### GUODIAN GAOKE (TIANQI SATELLITE)

##### Vehicle-Mounted Satellite Terminal LSC-F03

Industry-grade vehicle Tianqi satellite terminal with multi-GNSS, CAN/RS485, IP67/68.

|                         |                                        |
|-------------------------|----------------------------------------|
| Dimensions              | $\phi 100 \times 42.9$ mm              |
| Mass                    | 465 $\pm 5$ g                          |
| IP rating               | IP67/IP68                              |
| Communication frequency | 400 MHz UHF                            |
| Communication rate      | 268~1200 bps                           |
| TX power                | 32 $\pm 1$ dBm                         |
| GNSS systems            | GPS L1, BDS B1, GLONASS G1, Galileo E1 |

price on request

## Contact Guodian Gaoke (Tianqi Satellite)

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

<https://newspacemarket.com/companies/guodian-gaoke/>

<https://www.guodiangaoke.com>

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