RockBLOCK Plus 9704

Rugged, global satellite messaging with integrated GNSS

RockBLOCK Plus 9704 makes it simple to add reliable, two way satellite messaging and GNSS positioning to outdoor IoT and M2M applications.

Designed for developers and systems integrators, it combines the Iridium Certus 9704 transceiver with an onboard u-blox MAX-M10S GNSS receiver, dual RS-232 interfaces and wide voltage power input, all housed in a rugged IP67 enclosure. Connect it to your host controller to exchange messages of up to 100 KB and access raw GNSS data from anywhere on Earth.

RockBLOCK Plus 9704 uses Iridium Messaging Transport, making it ideal for remote monitoring, telemetry, autonomous systems and location-aware applications that need more data capacity than traditional satellite IoT messaging.

KEY FEATURES

Truly global satellite connectivity

Send and receive data over Iridium's Low Earth Orbit satellite network, including across oceans, polar regions and other areas beyond terrestrial coverage.

Messages from 25 bytes to 100 KB

Exchange short status updates or richer sensor and telemetry datasets using two way Iridium Messaging Transport.

Integrated multi-constellation GNSS

Access positioning data from the onboard u-blox MAX-M10S receiver, supporting concurrent reception from GPS/QZSS, Galileo, BeiDou and GLONASS.

Built for permanent outdoor installation

The IP67 enclosure uses an inherently UV-stable ASA radome for long term installation in hostile environments.

Separate satellite and GNSS interfaces

Connect to the Iridium transceiver and GNSS receiver through two dedicated RS-232 interfaces with independently configurable baud rates.

Low power, wide voltage operation

Power the device from a 7–30 V DC supply, with independent control of the satellite and GNSS functions to support energy conscious deployments.

Developer friendly integration

Use Ground Control's C, Python and Arduino libraries to manage messaging, while Cloudloop Data reformats and routes messages into your application.

TECHNICAL CHARACTERISTICS

PHYSICAL AND ENVIRONMENTAL

Size	137 mm diameter x 40 mm high (5.39 x 1.57 in)
Weight	460 g with 3 m cable (1.01 lb / 16.2 oz)
Antenna	Integrated Iridium and GNSS antennas
Form Factor	Fully enclosed unit with UV-stable ASA radome
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Operating Humidity	≤ 75% relative humidity
Ingress Protection	IP67
Cable Construction	8-core, 0.25 mm^2
Cable Options	3 m, 5 m, 10 m and 15 m

ELECTRICAL POWER

Power Input	7-30 V DC
Supply Protection	1 A inline fuse required
Power Consumption, Transmit	Less than 2 W
Power Consumption, Satellite Idle	Approximately 100–145 mW
Power Consumption, Sleep	Approximately 5 mW
Power Control	Independent enable inputs for Iridium and GNSS

COMMUNICATIONS

Satellite Service	Iridium Messaging Transport (IMT)
Message Size	25 to 100,000 bytes
Satellite Transceiver	Iridium Certus 9704
Coverage	Global, with a clear view of the sky
GNSS Receiver	u-blox MAX-M10S
GNSS Constellations	GPS/QZSS, Galileo, BeiDou and GLONASS
GNSS Protocols	NMEA 4.11 or UBX
Cloud Data Delivery	HTTPS webhooks, MQTT, AWS, Azure and Google Cloud via Cloudloop Data

INTERFACES

Host Interfaces	2 x RS-232: one dedicated to the Iridium 9704; one to the GNSS receiver
Control Inputs	Independent Iridium and GNSS enable inputs
Satellite Protocol	Iridium JSPR
GNSS Serial Format	NMEA or UBX
Developer Support	C, Python and Arduino Libraries

Ground Control