Iridium Certus™ 9770

Part #: IRID005801

Data Sheet

The Iridium Certus™ 9770 module provides voice, narrowband IP data services and messaging, using Iridium Messaging Transport℠ (IMT℠)*. The product is designed to be incorporated into a Value Added Manufacturer's end-user solution that meets the needs of specific markets. Typical applications for Iridium Certus 9770 include lone worker communications, fleet and vessel management, remote monitoring, SCADA and portable communication devices.

IRIDIUM CERTUS® BENEFITS

Highly Mobile - The Iridium® satellite network provides communications and connectivity for mobile and SCADA applications, anywhere on the planet allowing tracking and monitoring of vehicles and assets operating in remote areas.

Multi-Service Connectivity - Through a multi-service communication and connectivity service platform, Iridium Certus® offers superior fleet telematics and telemetry solutions.

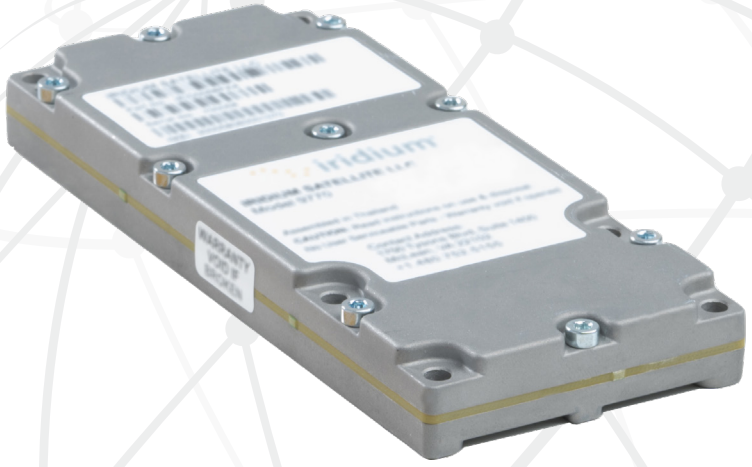
Reliable Coverage - Iridium Certus is enabled by a network of 66 mobile satellites that provide service anywhere on the planet.

Low Latency - The Iridium satellites in Low-Earth Orbit (780 km), enable signals to travel in 1/40 the time compared to geostationary satellites (36,000 km), resulting in low-latency, always-on connections ideal for IoT deployments.

Optimal Signal Delivery - Low frequency L-Band signals are designed to work in all-weather conditions and can penetrate clouds, fog and rain.

FEATURES

- Up to 22 Kbps transmit and 88 Kbps receive
- Simultaneous messaging using IMT, voice and IP data
- Two high-quality Iridium Certus voice circuits configured as either pre-paid or post-paid



*Expected in Q4, 2022

MECHANICAL SPECIFICATIONS

Dimensions	140 mm x 60 mm x 16 mm (H x W x D)
Weight	185 g
Power, Ground & Signaling Connector	50 Pin Female Header
RF Connector	MMCX

RF PARAMETERS

Frequency Range	1616 MHz to 1626.5 MHz
Maximum Cable Loss	2 dB (With Compliant Antenna)
Antenna	External Passive Omnidirectional Antenna
Maximum Average EIRP	9 dBW (With Compliant Antenna)

POWER PARAMETERS

Input Voltage	12 VDC +/- 2.5 V
Maximum Operating Current	1.5 A
Average Power	3.5 W (Typical, in Open Sky Environment)

DIGITAL INTERFACES

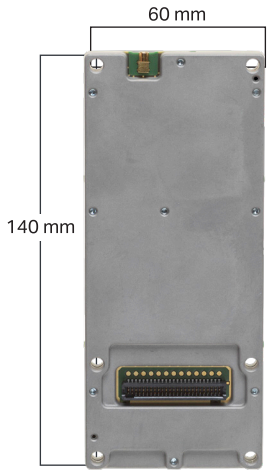
Command & Control	Serial Interface at 230.4 kBaud
IP Data Interface	PPP Over Serial Interface with Programmable Baud Rate
Audio Interface	I^2S Interface
SIM	6 Wire Interface for Connection to 1.8/3 V SIM, or Remote SIM Interface Using Command & Control Interface to External SIM Reader
Transmit Indicator	Control Line Output

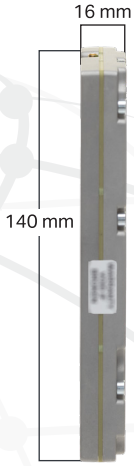
ENVIRONMENTAL SPECIFICATIONS

Temperature	-40° C to 70° C
Vibration	SAE J1455
Altitude	9144 m (30,000 ft)**

REGULATORY STANDARDS & COMPLIANCE

US (FCC), EU (CE MARK), CANADA (IC), AUSTRAILIA, ROHS, REACH





** Tested Specification

09/2022