

Iridium Certus 9704 Medule
Iridium Messaging Transpert SM
A fully integrated, cloud native networked data service



Description

Designed as an ultra-compact module, the Iridium Certus™ 9704 seamlessly integrates into products of any size, enabling cloud-ready data connectivity through Iridium's truly global satellite network. This module is exclusively compatible with IMT, a cloud-native server-to-device messaging protocol that maximizes Iridium's network capabilities to meet the growing demands of industrial IoT applications.

The Iridium Certus 9704 leverages global satellite coverage within a streamlined, single-component design. Free from cables or external attachments, it mounts directly onto the Printed Circuit Board (PCB). Its robust surface mount and low-profile design empower developers to create compact, durable, and adaptable devices."

Features

- Lifespan: Made to deliver 10+ years of service
- Universal, Cloud-Ready Data: Messages up to 100 KB through cost-effective IMT service
- Energy Efficient: Low power specs for active and idle modes
- Dedicated hardware for Iridium Messaging Transport® (IMT®)
- Ideal for hard-to-reach remote deployments
- · Surface-mounted: no cables or added parts

Technical Specifications

General	
Command Interface	JSON-Based Serial Protocol for REST (JSPR)
Interfaces	Serial data; SPI; GPIOs; GNSS pass-through; antenna (RF pin); digital interface
Dimensions	31.5mm x 42.0mm x 3.8mm (LxWxH)
Weight	12gr
Operating Temperature Range	-40 °C to 85 °C
Max Message Size	100KB - including images & soundbites

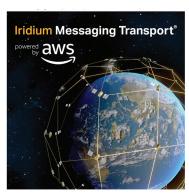




Description

The Iridium Certus™ 9704 Integrator Development Kit is a comprehensive evaluation platform for the Iridium Certus 9704 module, purpose-built for Iridium Messaging Transport® (IMT®). Designed for simplicity and flexibility, the kit combines hardware, software, and satellite connectivity into a seamless package, offering an intuitive experience for both seasoned developers and beginners.

Iridium Messaging Transport (IMT) Datasheet Overview



Iridium Messaging Transport (IMT) delivers efficient small-to-moderate-sized IoT messaging via the Iridium CloudConnect platform. It supports industry-standard protocols, programming frameworks, message topics, and Pub/Sub functionality, leveraging a broad array of Iridium Certus™ modules. IMT represents the next generation of satellite-enabled IoT communications.

IMT empowers customer devices equipped with Iridium Certus™ modules to seamlessly transmit and receive data over the Iridium® satellite network. By utilizing standard terrestrial IoT and data transaction methods,

it significantly streamlines the process of design, development, system integration, message management, and data transaction workflows.



Development Kit Includes

- Launch Pad Developer Board
- · Helical Iridium Antenna
- USB-C Cable
- SMA Right-Angle Adapter
- 3,000 mAh Lithium-Ion Battery
- MicroSD Card

Applications:

- IoT
- Email
- · Machine-to-machine communications
- (M2M) Group communications
- Weather forecast
- Transactions

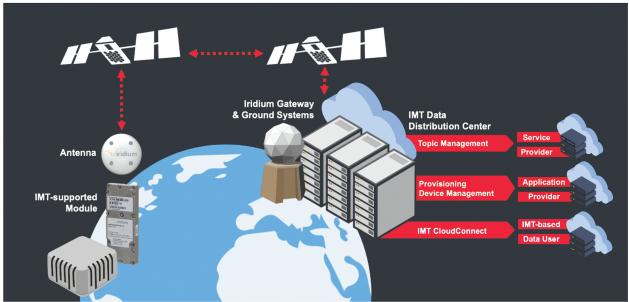
Features:

- Message Size: IMT accommodates data packets ranging from 1 to 100,000 bytes, offering maximum flexibility for diverse application needs.
- Standard Protocols: IMT leverages Python—a globally recognized programming language—and provides data in Simple Queue Service (SQS) using JavaScript Object Notation (JSON) format for ease of integration.
- Topics: IMT enables topic-based messaging with configurable settings for priorities, persistence, and queue sizes, ensuring tailored communication strategies.
- Pub/Sub: IMT's publish/subscribe methodology simplifies data transfers, serving as intuitive middleware for seamless communication.
- Iridium Modules: IMT compatibility will expand across the entire Iridium Certus™ module portfolio, starting with the Iridium Certus™ 9770. Contact your Iridium account manager for additional details.





How it works



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Application Providers (APs): Develop applications that send and receive messages via IMT; build server-side, cloud-based functionality and/or applications that control modules.

Service Providers (SPs) and Value-Added Resellers (VARs): Activate AP Topics in SPNet / IWS.

Cloud Service Providers: Environment where APs host the server-side application.

Data Application: Data-consuming application based on the device-side application.

Key Advantages:

- Secure Data Transfer: IMT transmits data over closed-carrier networks with dedicated, secure private connections between Iridium and AWS.
- **Streamlined Authentication**: Cross-account authentication enables s eamless integration, with a simple script to create the required infrastructure for topic queue sets.
- Private Queues: Topic queue sets are hosted within the customer's AWS Virtual Private Cloud (VPC) environment, ensuring complete data control.
- Global Coverage: Utilizes Iridium's global satellite network combined with AWS's redundant infrastructure for unmatched reliability.
- Simple Upgrade: Customers using Iridium Short Burst Data® (SBD®) with Iridium CloudConnect can easily transition to IMT, enabling seamless data ingestion regardless of underlying system technologies and protocols.

