TYPE J
DIPLEXER/LOW NOISE AMPLIFIER

A critical element of the satcom system, this rugged device allows for simultaneous transmission and reception of satellite signals.

HONEYWELL'S TYPE J DLNA PROTECTS INMARSAT L-BAND SIGNALS FROM INTERFERENCE

The deployment of ATCt /5G terrestrial networks in the continental USA and global LTE networks can interfere with Class 6 or Class 7 Inmarsat L-Band satellite communications systems—unless your aircraft is equipped with Honeywell's new Type J Diplexer/Low Noise Amplifier (DLNA).

Type J Diplexer/Low Noise Amplifier

In 2020, the Federal Communications Commission authorized radio spectrum previously dedicated to satcom for use by ATCt/5G terrestrial networks. The spectrum allocated for ATCt/5G terrestrial networks overlaps the receive band of Inmarsat L-Band satcom systems. This overlap can cause interference or service disruption to L-Band satcom systems on commercial, business, and military aircraft, along with a global risk of service disruption due to the ongoing deployment of cellular LTE/5G networks.

Honeywell's Type J DLNA ensures reliable, global connectivity in the presence of ATCt/5G and LTE signals. It's the only DLNA solution that supports Inmarsat Classic, SwiftBroadband, and SwiftBroadband Safety Services across ATCt/ 5G networks in North America and global 5G/LTE cellular networks.

In the event an existing Inmarsat Class 6/7 satcom system isn't upgraded to the Type J DLNA, an aircraft operating in the presence of interferences may experience service disruptions while in-flight, and/or an inability for the satcom system to log onto the Inmarsat satellite network while on the ground or in-flight.

HONEYWELL HAS THE SOLUTION

Honeywell has the only DLNA incorporating "AutoSense" functionality that continuously detects harmful interfering RF signals, automatically switching in filtering to protect the satcom system. The Type J DLNA is a near drop-in replacement that reuses existing mounting locations and aircraft wire harnessing, with only a minor (~0.3 lbs) increase in mass and minor changes to the Rx Connector location (please refer to installer's notes below).

Retrofitting legacy DLNAs with the Type J DLNA allows for continued use of existing Satcom System LRUs, including the terminal, high power amplifier, antenna, and existing aircraft wiring—preventing thousands of dollars in related equipment replacement and installation expenses. The Type J DLNA also future proofs the system against potential interference from ongoing cellular network deployments worldwide.

FEATURES

- ARINC 781-8 compliant
- RTCA DO-262, DO-178 Certified
- Compatible with all Inmarsat approved Class 6 or 7 satcom systems, including all legacy terminal and antenna combinations
- Drop-in replacement for all legacy DLNAs with identical mounting locations and connector types, with a minor increase in weight and improved Rx connector access (please refer to installer's notes below)
- Honeywell's "AutoSense' functionality senses and detects ATCt interference and automatically switches to the maximum available bandwidth
- Continuous and resilient built-in protection from global LTE/5G interference
- Flexible Dual AC and DC power supply supporting existing airframe infrastructures
- Cyber secure product that meets latest industry standards
- Qualified to environmental levels exceeding RTCA MOPS requirements

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HONEYWELL HAS YOUR INSTALLATION NEEDS COVERED

Honeywell's Type J DLNA is certified in accordance with FAA TSO-C159 to facilitate a more efficient and cost-effective retrofit program for legacy upgrades. The Type J DLNA is also qualified to cover key airframe requirements of many legacy DLNAs.

The Type J DLNA is retrofit and forward fit compatible with all Inmarsat Class 6 and Class 7 systems, including (but not limited to) Honeywell's MCS, HSD and Aspire Satcom terminals, and the AMT-1800, AMT-3500, AMT-50, AMT-700 and AMT-3800 antennas.

Product Specifications

CHARACTERISTIC	TYPE J
Dimensions	11.10" x 7.76" x 2.00"
Weight	7.10 lbs nominal (0.9 lbs less than the ARINC-781 Specification)
Power	Dual Power Supply: 115VAC, 400 Hz/DC +28V plus extended levels
Part Number	92511500-000
Specification	SPC-92512512
Interface Control Drawing	ICD-92511500
Equipment Classification	Systems and equipment (Avionics)
Hardware Level	RTCA/DO-160G plus supplementary requirements
Equipment Design Assurance Level	DAL D
DO-160 Environmental Code	[A3F2]XAC[BE][H(R)S(B,C,E,L,M,Y)R(E,E1)U2(F,F1)] ERFDFSZ[A(WF)Z]XA[R(WF)Z][CWE,CCE]RR[A4E4XX]XAAC
Certification Basis	RTCA - DO-160, DO-178, DO-262 and TSO-C159 certified
Cyber Security	All Firmware validated by Honeywell's extensive Cyber Security validation process

NOTE FOR INSTALLERS

While the Type J DLNA has the same overall envelope dimensions, mounting locations, and connector types as the Type F DLNA, there's a weight increase of approximately 0.3 lbs, and the Rx Connector location has been raised approximately 0.3 inches. Please refer to the specification SPC-92512512 and Interfact Control Drawing ICD-92511500 for additional details.

The Type J DLNA also incorporates additional ARINC 429 and Pulsed Discreet switching capability in case customers want to manually control ATC_t bandwidth options with compatible terminals. Please consult your terminal manufacturer to determine if their solution supports this feature.

For more information
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