



Freedom™ 550 Joint Enterprise Terminal

*Production-ready ... affordable ...
Freedom™ 550 is the software-
defined radio that bridges 5th
to 4th generation platform
interoperability gaps*

THE VALUE OF PERFORMANCE.

NORTHROP GRUMMAN

Success on today's dynamic battlefield demands multiple, reliable datalinks operating simultaneously for the warfighter. The Joint Forces require systems that are easily integrated into various aircraft with reduced costs and logistics support. Freedom™ 550 from Northrop Grumman meets these requirements.

The multi-channel, multifunction Freedom 550 provides an affordable software-defined radio that enables 5th generation platforms like the F-35 Lightning II and F-22 Raptor to share sensor data with 4th generation platforms and command and control nodes across the battlespace - allowing the platforms to remain low observable. The result is:

- Better targeting
- Greater mission effectiveness
- No interoperability gaps between 5th and 4th generation platforms
- Low probability of detection is maintained

Unique MADL and IFDL Interoperability

Freedom 550 is the only Type 1 certified production-ready radio providing both MADL (Multi-Function Advanced Data Link) and IFDL (Intra-Flight Data Link) interoperability and shares that data via J Series messages.

The Northrop Grumman Freedom 550 leverages the company's design and development of the communications, navigation and information (CNI) for the F-35, which incorporates MADL. Providing 30 MHz to 2 GHz capability, the radio has full MADL interoperability with room for

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growth. Freedom 550 can support all of the functions of the F-35 CNI, and more waveforms, channels and functions can be added as needed. Because they are software-defined, waveforms can be loaded and unloaded to serve individual missions.

Remote electronics and a dual band multibeam aperture are also being developed to simultaneously handle both MADL and IFDL waveforms. Freedom 550 will enable translation of F-22 and F-35 sensor data and provide the information to Link-16 participants. Freedom 550 is designed to support either two IFDL nets or one IFDL and one MADL net.

Freedom 550 Significantly Reduces Life-Cycle Costs

Using this software-defined radio with your current hardware provides a Size, Weight, Power and Cost (SWaP-C) advantage over a mix of federated solutions. The radio also minimizes cabling and installation costs.

Freedom 550 leverages F-35 production and logistics infrastructure. Freedom 550 provides an effective way to address potential Diminishing Manufacturing Sources (DMS) and tech refresh challenges. Major Freedom 550 subcomponents are the same as those

used in the F-35. This ensures an established economical supply base from a major program.

Features

- Uses F-35 CNI production hardware
- Uses F-35 CNI JTRS SCA-based software
- Certified NSA Type 1 Crypto
- SAP to Secret Write down
- Data At Rest Protection
- Housed in air-cooled chassis

Key Specifications

- 280 watts
- 43.5 lbs
- 9.5" (w) x 9" (h) x 12.5" (deep)
- 30 MHz to 2 GHz frequency coverage
- Two universal transceiver channels
- Multi-level security

For more information, please contact:

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