

RF-411

Next generation power amplifier (NGPA)

The L3Harris RF-411 maximizes mission flexibility by providing an industry leading, tunable co-site filtered Power Amplifier (PA). This lightweight solution enhances tactical agility by providing greater flexibility in mission planning.



Engineered to meet the changing needs of missions on the move, the RF-411 supports vehicular or fixed-mount radio systems. The RF-411 can be hard mounted to a wheeled vehicle, or mounted with a shock tray for tracked, shipboard or airborne applications.

The RF-411 is compatible with the most cutting-edge L3Harris tactical radios offering control-mode capability. The PA operates by means of radio control, which uses the radio's software to maximize PA performance with no user interaction, creating the ability to run today's most advanced VHF/UHF waveforms.

The L3Harris RF-411 provides access to networked voice and data over the frequency ranges of 30-520 MHz. Waveform coverage includes wideband and legacy narrowband communications.

Unlike most existing PA solutions, the RF-411 has a software-defined architecture for fast upgrades to accommodate emerging and future waveforms.



High performance, low size, weight and power (SWaP) power amplifier for missions on the move

KEY BENEFITS

- > Provides tuneable co-site filtering for narrowband waveforms in extreme operating environments
- > Up to 50-Watt power amplification in low-band frequencies from 30-520 MHz
- > Legacy and multiband waveform support
- > Reliable range extension in congested and contested environments
- > Software-defined architecture facilitates updates for future capabilities
- > Optimized to operate some of the most advanced waveforms in low-band utilizing control mode, with an unamplified high-band bypass

GENERAL	
Nomenclature	RF-411-PA05X
Frequency Range	30-520 MHz up to 50 W 520-2600 MHz in bypass only
Filtering	Narrowband tunable co-site VHF & UHF
Channel Spacing/Bandwidth	25 kHz-40 MHz

POWER	
Voltage Input	13-34.5 VDC (28 V, MIL-STD-1275E)
Power Consumption	400 W max

WAVEFORMS SUPPORTED	
Narrowband Waveforms	FM/FSK, AM/ASK, P25, DAMA, HavequickI/II, QuicklookIII, SATURN, SINGGARS, TNW-25, TNW-75, ARROW ANW2C, M-TNW, S-TNW, V-TNW,
Wideband Waveforms	TGW2, TSM-X, SRW, WRAITH, WREN-TSM
UHF SATCOM Waveforms	HPW, IW Phase II

PHYSICAL	
Dimensions	3.7 H x 5.6 W x 10.5 D in (9.4 H x 14.3 W x 26.7 D cm)
Volume	166 in ³ (272.0 cL)
Weight	9.5 lbs (4.31 kg)
Color	Green, black, tan

ENVIRONMENTAL, MIL-810H	
Operating Temperature	-40°F to +140°F (-40°C to +60°C)
Storage Temperature	-40°F to +159.8°F (-40°C to +71°C)
Immersion	2 meters, per 512.6: non-operational Shock, per 516.8: Functional and crash hazard: Operational Vibration, per 514.8: Ground mobile, minimum integrity and loose cargo: Operational Transit Drop, tested to MIL-STD-810G, per 516.6: Non-operational
Shock and Vibration Hard Mount	Same as shock and vibration-hard mount, but also includes ballistic shock, per 516.8: Operational
Shock and Vibration Shock Mount	Sand/dust, per 510.7: Operational salt fog, per 509.7: Non-operational
Sand/Dust/Salt/Fog/Immersion/Rain	Rain, per 506.6: Operational Humidity, per 507.6: Operational/non-operational
Humidity	

INTERFACES	
Radio/Other	LVDS, RS-232 or RS-485 Test/programming serial interface Status via radio interface
Antenna Port (TNC)	VHF, UHF, SATCOM, L-S Band (Bypass)
Fan Port	Fan power and control for optional fan with additional cooling for the NGPA

STANDARD KIT	
RF-411-PA050, Green	Power amplifier
RF-411-PA051, Black	Includes 12242-0700-01, DC power kit, and 12242-0720-01, hardware kit (for installation)
RF-411-PA052, Tan	

OPTIONAL ACCESSORIES	
12242-0800-01	Fan kit
12242-1500-01	Shock tray, required for tracked vehicles and ballistic shock profiles

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