

## **RF-410**

### **Next Generation Power Amplifier**

The L3Harris RF-410 Next Generation Power Amplifier (NGPA) maximizes mission flexibility through radio-agnostic capabilities and multiband support. This lightweight solution enhances tactical agility by eliminating the need for multiple PAs.



Engineered to meet changing needs of missions on the move, the NGPA supports vehicular or fixed-mount radio systems, which does not require a shock mount. The RF-410 is compatible with all L3Harris

tactical radios, supporting a variety of interfaces and modes. The NGPA features an RF sensing mode, requiring limited manual interaction, and is capable of supporting radio control mode which uses the radio's software to maximize PA performance with no user interaction.

The L3Harris NGPA provides seamless access to networked voice and data, over the frequency range of 30-2600 MHz. Waveform coverage includes wideband and legacy narrowband communications.

Unlike most existing PA solutions, the RF-410 has a software-defined architecture for fast upgrades to emerging and future waveforms.



**HIGH-PERFORMANCE,  
LOW-SWAP POWER  
AMPLIFIER FOR MISSIONS  
ON THE MOVE**

#### **KEY BENEFITS**

- > Up to 50-Watt power amplification in low-band frequencies; legacy and multiband waveform support
- > Flexible use: vehicular and fixed-mount
- > Reliable range extension in congested or contested environments
- > Software-defined architecture facilitates updates for future capabilities
- > Radio-agnostic, multi-interface operation



GENERAL	
Nomenclature	RF-410 Power Amplifier
Frequency Range	30-520 MHz up to 50 W 764-2000 MHz up to 35 W Above 2000 MHz up to 20 W
Channel Spacing/Bandwidth	25 kHz-20 MHz

POWER	
Voltage Input	13-34.5 VDC (28 V, MIL-STD-1275E)
Power Consumption	> 350 W into nominal loads

MODES AND WAVEFORMS SUPPORTED	
Narrowband Waveforms	AM/FM Analog, Quicklook 1A, Quicklook 2, Quicklook 3, Quicklook Wide, TNW, Export SINGARS, STC
Wideband Waveforms	M-TNW

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 <sup>3</sup> (272.0 cL)
Weight	11 lbs (4.98 kg)
Color	Green Other colors available upon request

ENVIRONMENTAL	
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
Shock and Vibration	<b>MIL-STD-810G compliant</b> Shock, per 516.6: Operational through functional shock; storage/transit for transit drop and crash hazard Vibration, per 514.6: Operational through ground mobile; storage/transit for minimum integrity and loose cargo
Sand/Dust/Salt Fog/Rain	<b>MIL-STD-810G compliant</b> Sand/dust, per 510.5: Operational Salt fog, per 509.5: Storage/transit Rain, per 506.5: Operational
Humidity	Humidity, per 507.5: Operational/storage/transit

INTERFACES	
Radio/Other	<ul style="list-style-type: none"> <li>• LVDS, RS-232 or RS-485</li> <li>• PA On/Off</li> <li>• Test/programming serial interface</li> <li>• Status via radio interface</li> </ul>
Antenna Port (TNC)	VHF, UHF, L-S Band, SATCOM
Manual Control	Momentary switch, knob for mode switching
Fan Port	Fan power and control for optional fan with additional cooling for the NGPA

STANDARD KIT	
RF-410D-PA050	Power Amplifier ( includes 12242-0700-01 and 12242-0720-01)

OPTIONAL ACCESSORIES	
RF-3143TG	Tri-band Antenna
12242-0700-01	DC Power Install Kit
12242-0720-01	Hardware Kit
12242-0800-01	Fan Kit
12242-1500-01	Shock Tray (under development) required for tracked vehicles and ballistic shock profiles

Contact your L3Harris sales representative for more information.

#### Non-Export Controlled Information

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.