



**L3HARRIS™**  
FAST. FORWARD.

# H-102 RF RECEIVER MODULE

Innovative solution to challenging radio frequency (RF) applications

## ELECTRICAL SPECIFICATIONS FOR TYPICAL UHF APPLICATIONS

PARAMETERS	SYMBOL	MIN	TYPICAL	MAX	UNIT
Operating Frequency Range	BW	400		500	MHz
P1dB Output	P1dB	7			dBm
RF Input Gain Flatness (437MHz to 447MHz)				±0.5	dB
Noise Figure at 20°C			1		dB
IF Output Frequency Response (1MHz BW)			3		dB
RF Output Phase Response	AM-PM			±1.5	dB
RF Output Phase Adjustment Range	DF	360			deg
IMD		60			dB
IF Output Harmonic			-60		dBc
IF Output Spurious Content			-60		dBc

## POWER REQUIREMENTS FOR TYPICAL UHF APPLICATIONS

PARAMETERS	SYMBOL	MIN	TYPICAL	MAX	UNIT
DC Line Current			450		mA
DC Line Voltage		6.8	7.5	10	V

## ENVIRONMENTAL PARAMETERS FOR TYPICAL UHF APPLICATIONS

PARAMETERS	SYMBOL	MIN	TYPICAL	MAX	UNIT
Cooling Air Temperature _Natural Convection				NA	°C
Receiver Weight				13	Lb

L3Harris reserves the right to change specifications without notice.

## TYPICAL APPLICATIONS INCLUDE

New ground or mobile radar receivers, UHF to L band
Modernization/modifications for improved sensitivity of existing UHF or L-band radar receivers
Robust front end for monostatic or bistatic radars with sustained protection of pulsed RF, up to 150W at 250µs with maintained 1 dB noise figure
Direction finding/interferometry systems for signal geolocation

## KEY FEATURES

Selectivity over 60 dB
Excellent gain and phase stability
Modular design
360° output phase adjustment
Gain adjust range over 20 dB
High efficiency



L3Harris' RF product portfolio offers innovative solutions to challenging applications. These products are used as building blocks to integrate new RF systems, such as radars and direction finding systems, or to modernize aging systems that are experiencing obsolescence issues.

A typical application of the H-102 for UHF signals uses industry-proven E-pHEMT low-noise amplifier technology to provide a noise figure of less than 1 dB. The receiver module uses double down-conversion to baseband. It features manual phase and gain controls to enable external calibration, simplifying calibration within an array. The receiver module is cooled by natural convection. It supports hot swap, streamlining site maintenance and improving operational availability.

## H-102 RF Receiver Module

© 2019 L3Harris Technologies, Inc. | 08/2019 | 58010 | d1030 | EL

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.



**L3HARRIS™**  
FAST. FORWARD.

L3Harris SENSOR PROGRAM  
4450 East Fountain Boulevard  
Colorado Springs, CO 80916  
t 719 637 5900