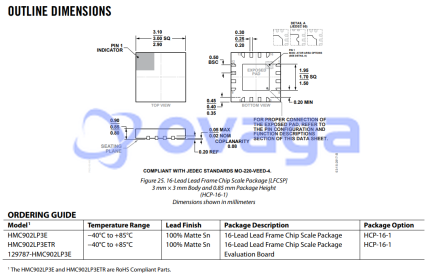
HMC902LP3E

Data Sheet

RF Amplifier IC, 19.5 dB Gain / 1.8 dB Noise, 5 GHz to 10 GHz, 3.5 V, HVQFN-16

Manufacturers	Analog Devices, Inc
Package/Case	QFN-16
Product Type	Amplifier ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for HMC902LP3E or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The HMC902LP3E is a gallium arsenide (GaAs), pseudomorphic high electron mobility transistor (pHEMT), monolithic microwave integrated circuit (MMIC) low noise amplifier (LNA), which is self biased with optional bias control for IDQ reduction. The HMC902LP3E is housed in a leadless 3 mm × 3 mm plastic surface mount package. The amplifier operates between 5 GHz and 11 GHz, providing 19.5 dB of small signal gain, 1.8 dB noise figure, and 28 dBm of output IP3, while requiring only 80 mA from a 3.5 V supply.

The P1dB output power of 16 dBm enables the LNA to function as a local oscillator (LO) driver for balanced, I/Q, or image reject mixers. The HMC902LP3E also features inputs/outputs that are dc blocked and internally matched to 50 Ω, making it ideal for high capacity microwave radios and C band, very small aperture terminal (VSAT) applications.

Features

Low noise figure: 1.8 dB typical

High gain: 19.5 dB

High P1dB output power: 16 dBm typical

Single supply: 3.5 V at 80 mA

Output IP3: 28 dBm

50 Ω matched input/output

Self biased with optional bias control for quiescent drain control (IDQ) reduction.

3 mm × 3 mm, 16-lead frame chip scale (LFCSP) package: 9 mm²

Application

Point to point radios

Point to multi point radios

Military and space

Test instrumentation

OUTLINE DIMENSIONS

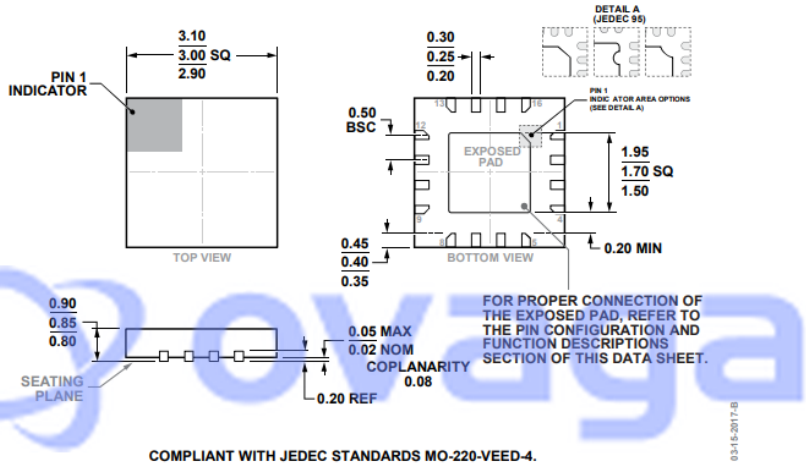


Figure 25. 16-Lead Lead Frame Chip Scale Package [LFCSP]
3 mm × 3 mm Body and 0.85 mm Package Height
(HCP-16-1)
Dimensions shown in millimeters

ORDERING GUIDE

Model[1]	Temperature Range	Lead Finish	Package Description	Package Option
HMC902LP3E	–40°C to +85°C	100% Matte Sn	16-Lead Lead Frame Chip Scale Package	HCP-16-1
HMC902LP3ETR	–40°C to +85°C	100% Matte Sn	16-Lead Lead Frame Chip Scale Package	HCP-16-1
129787-HMC902LP3E			Evaluation Board	

[1] The HMC902LP3E and HMC902LP3ETR are RoHS Compliant Parts.

FUNCTIONAL BLOCK DIAGRAM

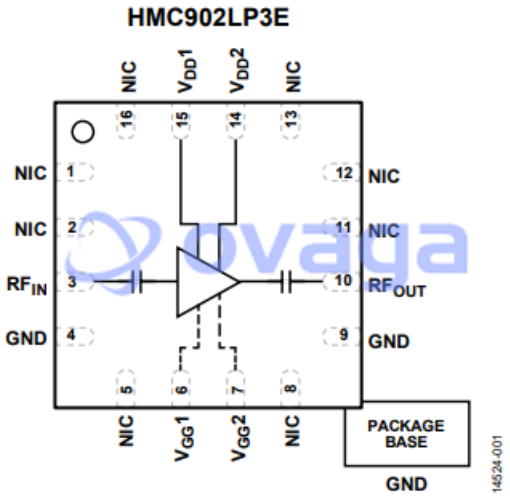


Figure 1.

Related Products

[HMC591LP5E](#)

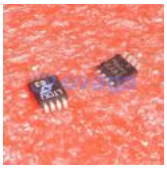
Analog Devices, Inc

QFN32

[HMC589AST89E](#)

Analog Devices, Inc

SOT-89



[LTC6102HMS8#PBF]

Analog Devices, Inc

8MSOP

[HMC464LP5]

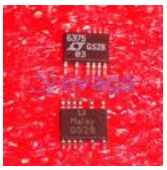
Analog Devices, Inc

QFN32

[LTC6102HMS8]

Analog Devices, Inc

MSOP8



[LT6375HMS#PBF]

Analog Devices, Inc

16MSOP

[LTC6102HMS8-1#PBF]

Analog Devices, Inc

8-MSOP

[LTC6081HMS8#PBF]

Analog Devices, Inc

8MSOP