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HMC977 HMC977



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HMC977

I/Q Downconverter SMT, 20 - 28 GHz

Recommended for New Designs

Overview

Evaluation Kits

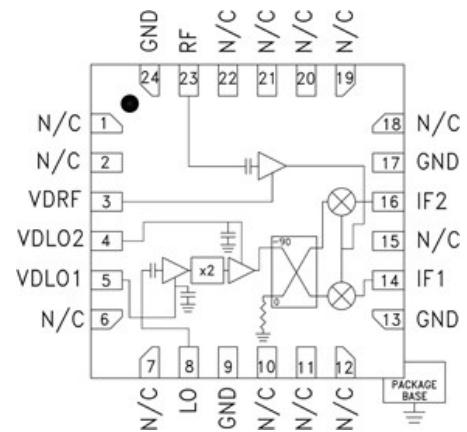
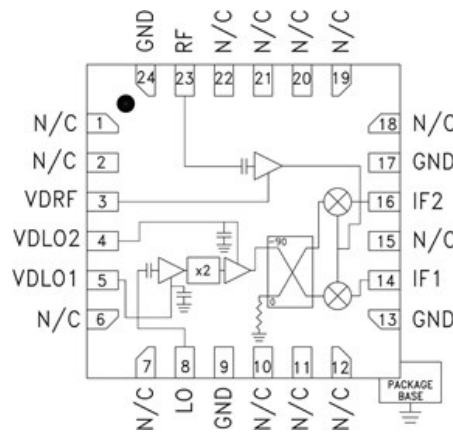
Documentation

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Sample & Buy



Data Sheet

View All

Features and Benefits

- Conversion Gain: 14 dB
- Image Rejection: 21 dBc
- 2 LO to RF Isolation: 45 dB
- Noise Figure: 2.5 dB
- Input IP3: 1 dBm
- 24 Lead 4 x 4 mm QFN Package: 16 mm²

Product Categories

RF & Microwave

- I/Q Downconverters/Receivers

Product Details

The HMC977LP4E is a compact GaAs MMIC I/Q downconverter in a leadless RoHS compliant SMT package. This device provides a small signal conversion gain of 14 dB with a noise figure of 2.7 dB and 21 dBc of image rejection. The HMC977LP4E utilizes an LNA followed by an image reject mixer which is driven by an active x2 multiplier. The image reject mixer eliminates the need for a filter following the LNA, and removes thermal noise at the image frequency. I and Q mixer outputs are provided and an external 90° hybrid is needed to select the required sideband. The HMC977LP4E is a much smaller alternative to hybrid style image reject mixer downconverter assemblies, and is compatible with surface mount manufacturing techniques.

Applications

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Product Lifecycle

[Recommended for New Designs](#)

This product has been released to the market. The data sheet contains all final specifications and operating conditions. For new designs, ADI recommends utilization of these products.

Evaluation Kits (1)

EVAL-HMC977LP4E

HMC977LP4E Evaluation Board

Documentation

[1 See All](#)

[1 Data Sheets](#)

HMC977LP4E: GaAs MMIC I/Q Downconverter 20 to 28 GHz Data Sheet

PDF

1.17 M

Reference Materials

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[3 Quality Documentation](#)

[1 Technical Articles](#)

[1 Tape & Reel Specification](#)

Quality Documentation

[Package/Assembly Qualification Test Report: Plastic Encapsulated QFN \(QTR:...](#)

Quality Documentation

[Package/Assembly Qualification Test Report: LP4, LP4B, LP4C, LP4K \(QTR:...](#)

Quality

[Semic Test R 2013-1](#) >

Design Resources



ADI has always placed the highest emphasis on delivering products that meet the maximum levels of quality and reliability. We achieve this by incorporating quality and reliability checks in every scope of product and process design, and in the manufacturing process as well. "Zero defects" for shipped products is always our goal.

[HMC977 Material Declaration](#)

[PCN-PDN Information](#)

[Quality And Reliability](#)

[Symbols and Footprints](#)

Discussions



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Sample & Buy



Model	Package	Pins	Temp Range	Packing Qty	Price (100-499)	Price (1000+)	RoHS	Order from Analog Devices
HMC977LP4E PCN Production	24 Id QFN (4x4mm w/2.8mm ep)	24	-40 to 85C	Reel, 50		-	Y Info	Sample Purchase
HMC977LP4ETR PCN Production	24 Id QFN (4x4mm w/2.8mm ep)	24	-40 to 85C	Reel, 500		-	Y Info	Purchase

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[Price Table Help](#)

Evaluation Boards

Pricing displayed is based on 1-piece.

Model	Description	RoHS
131656-HMC977LP4E Production	Evaluation Board - HMC977LP4E Evaluation PCB	Yes

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4,700+

Patents Worldwide

125,000

Customers

50+

Years

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