


## Active RF Multipliers x2 19GHz to 25GHz-OUT 4-Pin Die Tray

<b>Manufacturer:</b>	<a href="#">Analog Devices, Inc</a>
<b>Package/Case:</b>	Chip
<b>Product Type:</b>	RF Integrated Circuits
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

### General Description

The HMC448 die is a x2 active broadband frequency multiplier chip utilizing GaAs PHEMT technology. When driven by a 0 dBm signal, the multiplier provides +11 dBm typical output power from 19 to 25 GHz. The Fo and 3Fo isolations are >22 dBc up to 22 GHz. This multi-rate frequency multiplier can be used in the generation of a half rate clock for 40 Gbps systems or as part of a multiplier chain to generate a full rate 40 Gbps clock. The HMC448 is also ideal for use in LO multiplier chains for Pt to Pt & VSAT Radios yielding reduced parts count vs. traditional approaches. The low additive SSB Phase Noise of -135 dBc/Hz at 100 kHz offset helps maintain good system noise performance. All data is with the chip in a 50 ohm test fixture connected via 0.076 × 0.0127mm (3mil × 0.5mil) ribbon bonds of minimal length 0.31mm (<12mils).

### Key Features

- Output Power: +11 dBm
- Wide Input Power Range: -4 to +6 dBm
- Fo, 3Fo Isolation: >20 dBc @ Fout= 20 GHz
- 100 KHz SSB Phase Noise: -135 dBc/Hz
- Single Supply: 5V @ 48 mA
- Die Size: 1.16 × 1.20 × 0.1 mm

### Application

- Clock Generation Applications:
  - SONET OC-192 & SDH STM-64
  - Point-to-Point & VSAT Radios
  - Test Instrumentation
  - Military & Space

### Recommended For You

#### HMC624ALP4E

Analog Devices, Inc  
QFN24

#### HMC952ALP5GE

Analog Devices, Inc  
QFN

#### HMC361S8GE

Analog Devices, Inc  
SOP-8

**HMC253AQS24E**

Analog Devices, Inc

QFN

**HMC346MS8G**

Analog Devices, Inc

MSOP8

**HMC1119LP4ME**

Analog Devices, Inc

QFN

**HMC659LC5**

Analog Devices, Inc

QFN

**HMC909LP4E**

Analog Devices, Inc

QFN

**HMC564LC4**

Analog Devices, Inc

QFN

**HMC1021LP4E**

Analog Devices, Inc

QFN

**HMC241AQS16E**

Analog Devices, Inc

SSOP16

**HMC424LP3E**

Analog Devices, Inc

QFN

**HMC662LP3E**

Analog Devices, Inc

QFN

**HMC8038LP4CE**

Analog Devices, Inc

QFN16

**HMC363S8G**

Analog Devices, Inc

SOP8