HMC1119LP4ME

7Bit 0.25dBStep 31.75dB 6GHz 24-Pin LFCSP EP Cut Tape

Manufacturer:	Analog Devices, Inc
Package/Case:	QFN
Product Type:	RF Integrated Circuits
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

Images are for reference only

Inquiry

General Description

The HMC1119 is a broadband, highly accurate, 7-bit digitalattenuator, operating from 0.1 GHz to 6.0 GHz with 31.5 dBattenuation control range in 0.25 dB steps.

The HMC1119 is implemented in a silicon process, offeringvery fast settling time, low power consumption, and high ESDrobustness. The device features safe state transitions and isoptimized for excellent step accuracy and high linearity overfrequency and temperature range. The RF input and output areinternally matched to 50 Ω and do not require any externalmatching components. The design is bidirectional; therefore,the RF input and output are interchangeable.

The HMC1119 has an on-chip regulator that can support a widesupply operating range from 3.3 V to 5.0 V with no performancechange in electrical characteristics. The HMC1119 incorporates adriver that supports serial (3-wire) and parallel controls of theattenuator.

The HMC1119 comes in a RoHS-compliant, compact, 4 mm ×4 mm LFCSP package.

A fully populated evaluation board is available.

Key Features

Attenuation range: 0.25 dB LSB steps to 31.75 dB

Low insertion loss:

1.1 dB at 1.0 GHz

1.3 dB at 2.0 GHz

Typical step error: less than ±0.1 dB

Excellent attenuation accuracy: less than ±0.2 dB

Low phase shift error: 6° phase shift at 1.0 GHz

Safe state transitions

High linearity

1 dB compression (P1dB): 31 dBm typical

Input third-order intercept (IP3): 54 dBm typical

RF settling time (0.05 dB final RF output): 250 ns

Single supply operation: 3.3 V to 5.0 V

ESD rating: Class 2 (2 kV human body model (HBM))

24-lead, 4 mm × 4 mm LFCSP package: 16 mm2

Application

Cellular infrastructure

Microwave radios and very small aperture terminals (VSATs)

Test equipment and sensors

IF and RF designs

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

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

HMC394LP4E

Analog Devices, Inc

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