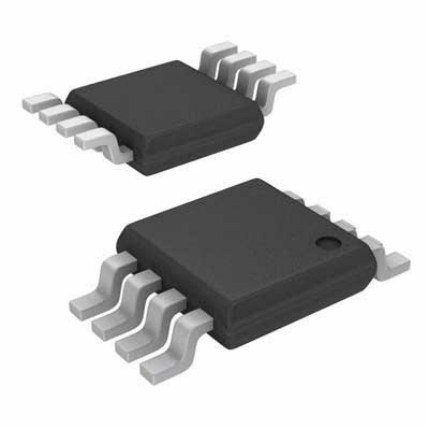
MAX4003EUA+T

RF Detector 100MHz to 2500MHz 0dBm 8-Pin uMAX T/R

Manufacturer:	Maxim Integrated
Package/Case:	MSOP8
Product Type:	RF Integrated Circuits
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The MAX4003 low-cost, low-power logarithmic amplifier is designed to detect the power levels of RF power amplifiers (PAs) operating from 100MHz to 2500MHz. A typical dynamic range of 45dB makes this logarithmic amplifier useful in a variety of wireless applications including cellular handset PA control, TSSI for wireless terminal devices, and other transmitter power measurements. This logarithmic amplifier provides much wider measurement range and superior accuracy than typical diode-based detectors. Excellent temperature stability is achieved over the full operating range of -40°C to +85°C. The MAX4003 logarithmic amplifier is a voltage-measuring device with a typical signal range of -58dBV to -13dBV. The input signal is internally AC-coupled by an on-chip 5pF capacitor in series with a 2kΩ resistance. This highpass coupling, with a corner at 16MHz, sets the lowest operating frequency and allows the input signal source to be DC grounded. The MAX4003 also features a power-on delay, which holds the detector output (OUT) low for approximately 5µs to ensure glitchless controller output. The MAX4003 is available in an 8-bump chip-scale package (UCSP), an 8-pin µMAX package, and an 8-pin thin QFN package. The device consumes 5.9mA with a 3.0V supply and only 13µA when the device is in shutdown.

Key Features

Supply voltage range is 2.7V to 5V

Operating temperature range from -40°C to 85°C

Fast response of 70ns in 10dB steps

Low current consumption of 5.9mA at VCC = 3.0V

Shutdown current is 13µA (typ)

Application

Cellular Handsets (TDMA, CDMA, GPRS, GSM)

RSSI for Fiber Modules

Transmitter Power Measurement and Control

TSSI for Wireless Terminal Devices

Recommended For You

MAX2309EGI

Maxim Integrated

QFN

MAX2021ETX

Maxim Integrated

QFN

MAX2150ETI

Maxim Integrated

QFN

MAX2608EUT

Maxim Integrated

SOT23-6

MAX2829ETN+

Maxim Integrated

QFN56

MAX2606EUT

Maxim Integrated

SOT23-6

MAX2015EUA+

Maxim Integrated

MSOP8

MAX2051ETP+

Maxim Integrated

QFN-52

MAX41461GUB+

Maxim Integrated

MSOP10

MAX2769ETI+T

Maxim Integrated

QFN28

MAX1473EUI

Maxim Integrated

TSSOP28

MAX2674EWT+T

Maxim Integrated

6WLP

MAX4003EUA+

Maxim Integrated

MSOP8

MAX2659ELT+T

Maxim Integrated

UDFN-6

MAX2769ETI+

Maxim Integrated

28TQFN