

RF AMPLIFIER

MODEL QBH-1424PM

Available as: QBH-1424PM, 4 Pin TO-8 (T4)
 QBH-5024PM, 4 Pin Surface Mount (SM3)
 QBH-9-1424PM, SMA Connectorized Housing

Features

- Superior Phase Noise Performance
- Replaces Competitor's "1024" Design
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 1000 MHz	10 - 1000 MHz
Gain (dB)	13.0	12.0 Min.
Gain Flatness (dB)	± 0.75	± 0.75 Max.
Power @ 1 dB Comp. (dBm) (10-500 MHz) (500-1000 MHz)	26.0 24.0	24.0 Min. 21.5 Min.
Reverse Isolation (dB)	-17	-15 Max.
Noise Figure (dB)	5.5	7.0 Max.
VSWR In Out	1.5:1 1.5:1	2.0:1 Max. 2.0:1 Max.
Power Vdc mA	+15 155	+15 175 Max.

Note: Care should always be taken to effectively ground the case of each unit.

Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +45 dBm (Typ.)
 Second Order Two Tone Intercept Point +39 dBm (Typ.)
 Third Order Two Tone Intercept Point +32 dBm (Typ.)

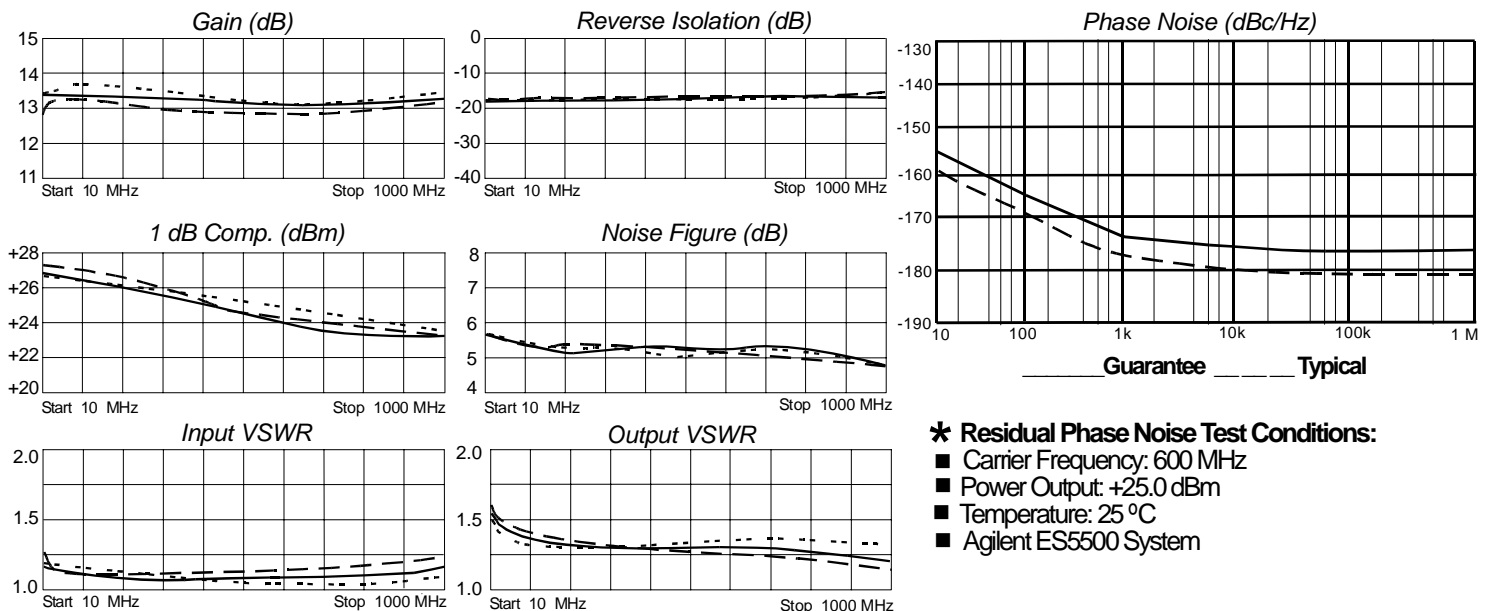
Maximum Ratings

Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +17 Volts
 Continuous RF Input Power +13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.1 Watt (3 µsec Max.)

Guaranteed Phase Noise Performance (dBc/Hz)

Frequency	Typical	Guarantee
10 Hz	-159	-155
100 Hz	-169	-165
1 kHz	-177	-174
10 kHz	-180	-177
100 kHz	-181	-178
1 MHz	-181	-178

Typical Performance Data



* Residual Phase Noise Test Conditions:

- Carrier Frequency: 600 MHz
- Power Output: +25.0 dBm
- Temperature: 25 °C
- Agilent ES5500 System

Legend ——— +25 °C - - - +85 °C ····· -55 °C



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