

RF AMPLIFIER

Available as: QBH-4018, 4 Pin TO-8 (T4)

QBH-9-4018, Connectorized Housing (ES E52-1501)

MODEL QBH-4018

Features

- High Gain: 12.5 dB Typical
- High Power: +26.2 dBm Typical
- Operating Temp. - 40 °C to +50 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -40 °C to +50 °C
Frequency	50 - 600 MHz	50 - 600 MHz
Gain (dB)	12.5 Min.	—
Gain vs. Temperature	—	—
Gain Flatness	0.5	0.6 Max.
Reverse Isolation (dB)	-16	-15 Min.
VSWR In	1.6:1	1.7:1 Max.
VSWR Out	1.9:1	2.0:1 Max.
1 dB Compression (dBm)	+26.2	+26.0 Min.
Output Intercept point 3rd Order	+36	+35 Min.
2nd Order	—	—
Noise Figure (dB)	6.0	7.0 Max.
Power Vdc	+15	+15
mA	195	205 Max.

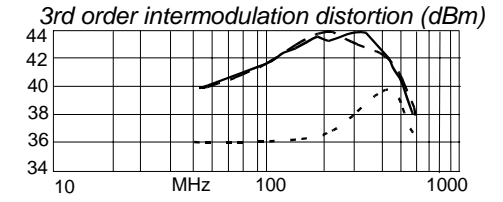
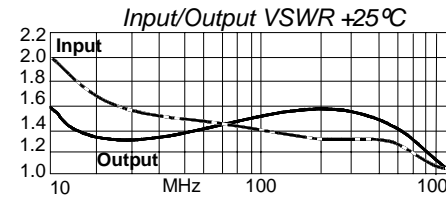
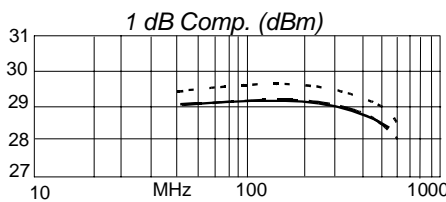
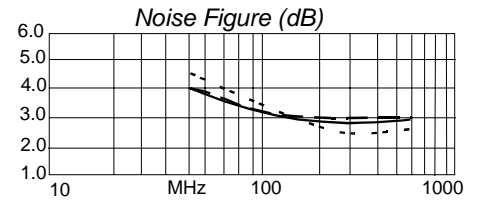
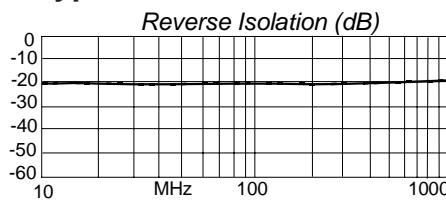
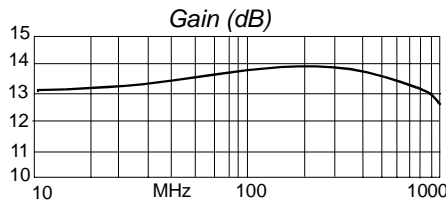
Maximum Ratings

Ambient Operating Temperature -55°C to +85 °C
 Storage Temperature -65°C to + 150 °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 0.5 Watt (3 µsec Max.)

Note:

1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.
2. Noise Figures increase below 500 MHz

Typical Performance Data



Legend ——— + 25 °C --- + 50 °C - - - - -40 °C

Linear S-Parameters Data

FREQ. MHz	-- S11--		-- S21--		-- S12--		-- S22--	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
50	-13.8	-23.6	13.4	175.3	-21.0	-7.2	-16.4	178.9
90	-14.9	-25.5	13.6	164.2	-21.3	-15.2	-14.5	-177.9
110	-15.4	-26.3	13.7	158.8	-21.5	-18.7	-13.9	179.1
140	-16.1	-26.2	13.8	150.7	-21.6	-22.0	-13.3	173.2
155	-16.4	-25.9	13.9	146.7	-21.7	-24.3	-13.2	169.9
170	-16.6	-25.3	13.9	142.8	-21.7	-25.8	-13.1	166.9
200	-16.8	-24.3	13.9	135.0	-21.7	-29.7	-13.1	161.3
400	-17.4	-29.4	13.6	86.1	-21.4	-58.1	-14.6	135.2
600	-19.5	-45.5	13.4	37.9	-21.0	-89.7	-17.0	115.1



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