

Description

This is a cryogenic low-noise amplifier, operating in the bandwidth **0.1 to 12 GHz**.



Features

- **Noise Figure ≤ 0.55 dB; Noise Temp ≤ 40 Kelvin**
- 50 Ohm Matched Input/Output
- Field Replaceable 3.5mm SMA connectors
- Excellent Group Delay and Phase Linearity
- 0.009 inches diameter RF In/Out feed through
- 3 Year Warranty and Lifetime Support

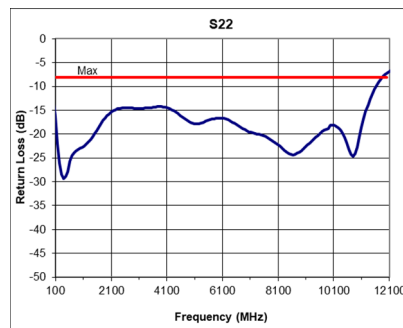
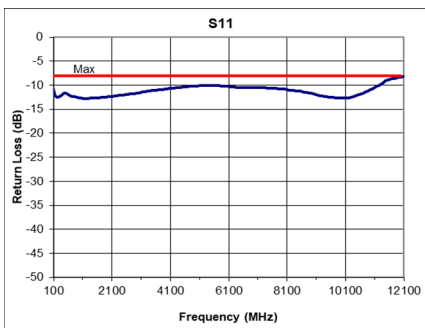
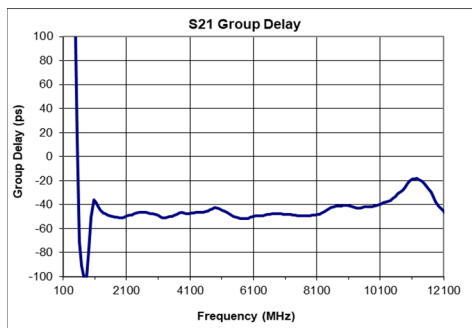
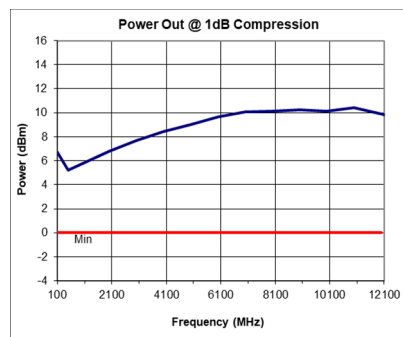
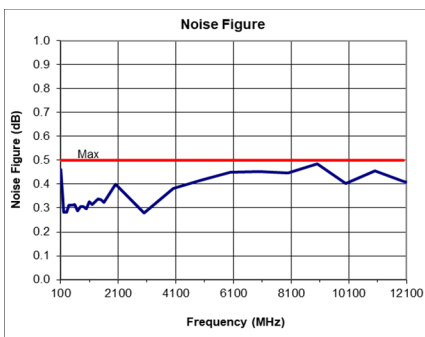
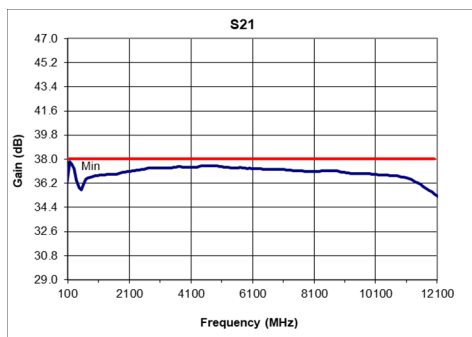
Options

- **Optimized Performance over Selected Bandwidth**
- Internally DC Block Input (Output DC Block Standard)
- Hermetically Sealed Package
- Reverse Polarity Protection
- Gain and Phase matching
- Male or Female Connectors
- Mounted on Heatsink
- Limiting Diode for Higher Input Power Tolerance

Specifications @ 77K

Parameter	Min	Typ	Max	Units
Frequency Range	0.1	-	12	GHz
Noise Figure*	-	-	0.55	dB
Gain	33	-	-	dB
Gain Flatness (+/-)	-	-	± 2.0	dB
P1 Output Power	+0	-	-	dBm
Input VSWR	-	-	2.5:1	
Output VSWR	-	-	2.5:1	
Operating Temperature**	-	-196	-	$^{\circ}\text{C}$
Non-Operating Temp Range	-196	-	+85	$^{\circ}\text{C}$
RF Input Power (no-damage)	-	-	+13	dBm
Humidity (non-condensing)	-	-	95	%
Voltage	5	-	5	VDC
Current	-	65	-	mA
Input Impedance	50			Ohms
RF Connector	3.5mm SMA - Female			
Dimensions	29.9x18.7x7.6			mm
Outline	100114			

**At B&Z, we can only measure down to 77K, but unit can be cooled down to 15K or lower with lower noise temp
NF Uncertainty (approx. 0. 1dB). 0.05 dB due to ENR of HP 346C; and 0.05 dB, due to the gain modulation of the unit, caused by the HP 346C source impedance change in the ON and OFF state.



S/N. 24698
Date 9/4/2025 1