

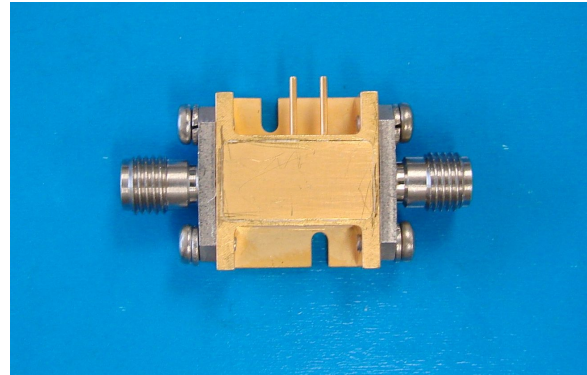
## XNA Series

## 0.1 – 20GHz Low Noise Amplifier

### Features

- Frequency Range: 0.1 - 20GHz
- Gain: 19dB min
- P<sub>1dB</sub>: +10dBm
- IP3: +20dBm
- Noise Figure: 2.4dB max.
- DC Power: 15V @ 75mA
- Field Replaceable SMA-F

### Photo



### Description

XNA-00102000-241019 is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency range of 100MHz to 20GHz.

### Electrical Specifications @+23°C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ω, V<sub>supply</sub> = +15VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	0.1		20
Gain (S21)	dB	19	24	
Gain Flatness	dB			±2.5
Output Power P <sub>1dB</sub>	dBm	+10		
Output Third Order Intercept IP3	dBm		+20	
Noise Figure *	dB			2.4
Isolation (S12)	dB		-50	
VSWR-Input (S11)	ratio:1			2.5:1
VSWR-Output (S22)	(unitless)			2.5:1
DC Power Supply - voltage	V	12	15	
DC Power Supply - current	mA		75	100
Operating Temperature	°C	-54		+85
Size (RF/DC feedthru's excluded)	Inch/mm	0.650 x 0.646 x 0.223/16.5 x 16.4 x 5.7 (LxWxH)		
Weight	Oz	0.35 (10 grams)		

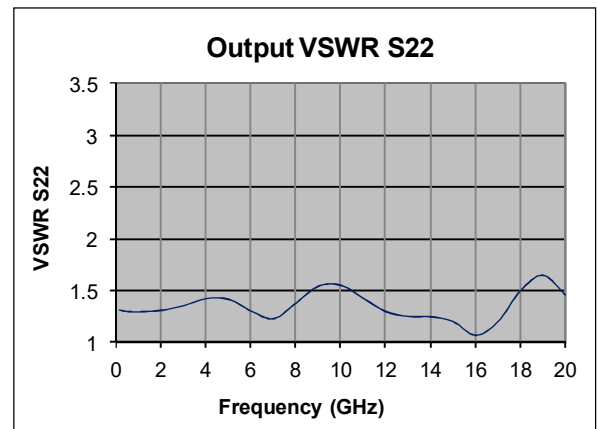
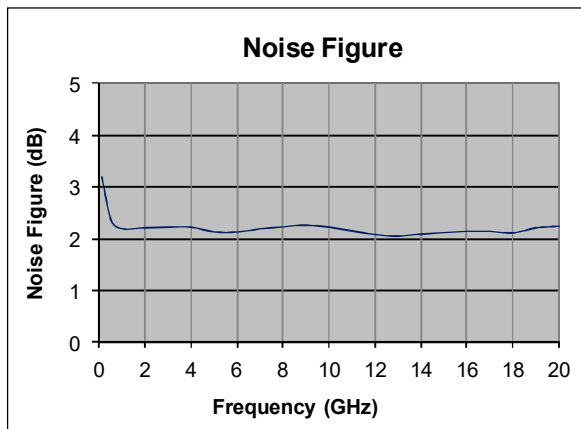
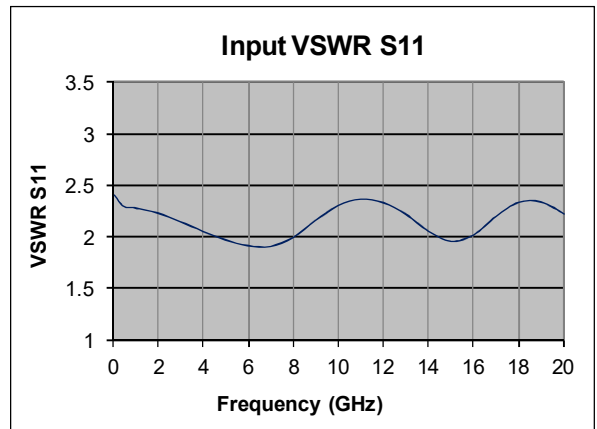
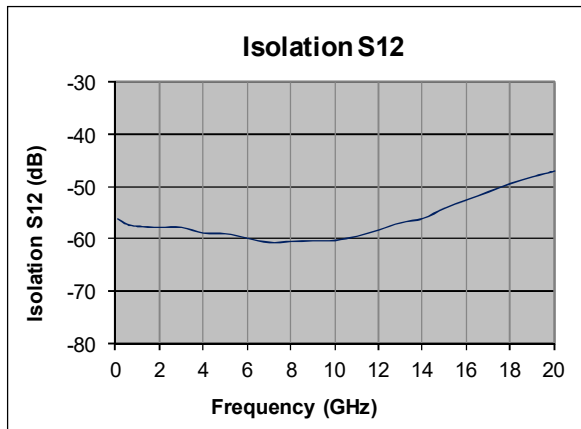
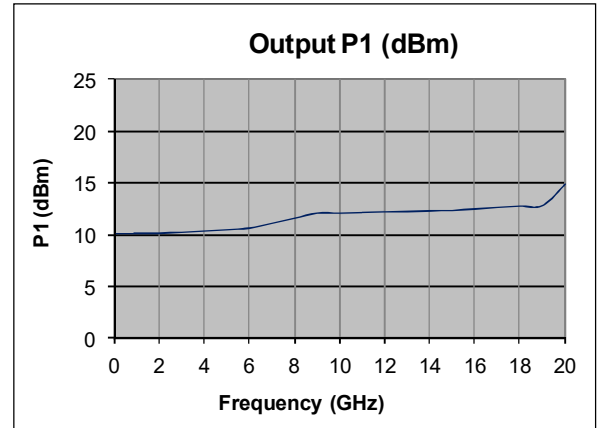
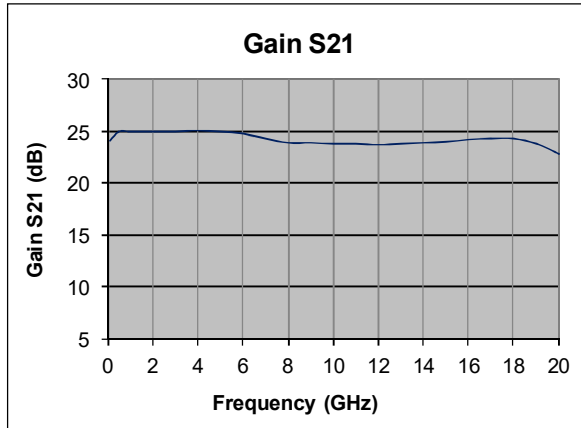
\* Noise figure increases below 500MHz due to 1/f noise

**WARNING: MUST USE HEAT SINK IF CASE TEMPERATURE EXCEEDS 50 °C**

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### Typical Performance @ +25 °C



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### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+15dBm
Supply Voltage (Survival)	+16V
Operating Temperature	-54 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### Outline

