

A11T Amplifier

Tiny Amplifier

Description

The A11T Tiny Amplifier is a single stage line amplifier covering the GPS, Galileo, and GLONASS frequencies designed with the thin link margins of satellite navigation systems in mind.

The A11T features 30dB of gain, and a noise figure of less than 1.8dB. Since the A11T consumes less than 16mA, it is easily powered by any GPS receiver's antenna voltage.

The A11T is an inline device designed to strengthen the signal to more enable distribution of L-band signals to a multitude of downstream devices.

Features

- Excellent Noise Figure: $F < 1.8\text{dB}$
- Excellent Gain: $G = 30\text{dB}$
- Passes GPS L1/L2/L5, Galileo, GLONASS, BeiDou (entire L-band)
- RoHS, CE, and WEEE Compliant

Options

The A11T Tiny Amplifier can be custom configured. Please contact GPS Source for further information on product options and specifications.



A11T

1 Electrical Specifications

Operating Temperature -40°C to 85°C

Parameter		Conditions	Min	Type	Max	Units
Frequency Range		IN – OUT, IN/OUT 50 Ω	1		2	GHz
In/Out Imped.		IN, OUT		50		Ω
Gain	IN – OUT, IN/OUT 50 Ω	1227 MHz	30	32	33	dB
		1575 MHz	28	30	32	
Input SWR		OUT Port 50 Ω			2:1	-
Output SWR		IN Port 50 Ω			2:1	-
Noise Figure		IN – OUT, IN/OUT 50 Ω			1.8	dB
Gain Flatness		[L1 – L2] IN – OUT, IN/OUT 50 Ω			4	dB
Group Delay Flatness		τd,max - τd,min, IN - OUT			1	ns
Reverse Isolation		OUT - IN	30			dB
Device Current		Current Consumption of device (excludes Ant. Cur.)			16	mA
Ant/Thru Current	Pass DC	Non-Powered Configuration, DC Input on OUT port			250	mA
Max RF Input		Max RF Input Without Damage			10	dBm

2 Performance Data

2.1 A11T

Figure 2-1.

■ Gain vs. Frequency

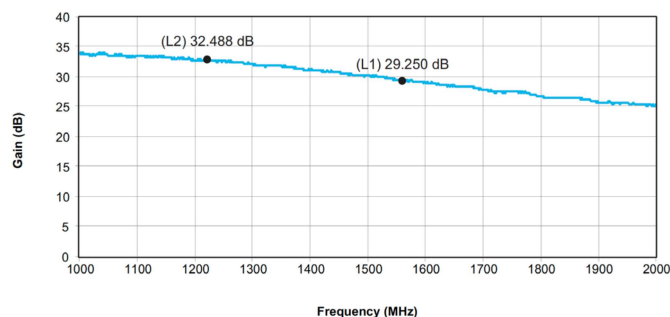
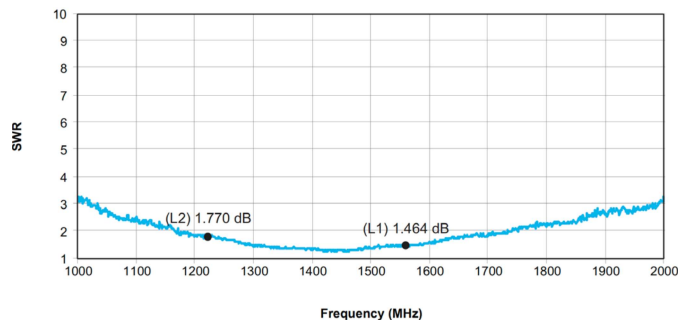


Figure 2-2.

■ SWR vs. Frequency



3. Product Options

Table 3-1. A11T Available Options

RF Connector		
Connector	Connector Type	Limitations
	SMA (Female/Male)	N/A
Housing		
Housing	Housing Type	Limitations
	Tiny	Powered Option Not Available
Port		
Configuration	Standard Configuration	Pass DC Input and Output
	Non-Standard Configuration	Block DC Input and Pass DC Output

4. Product Code Decoder

