

AT11V ATTENUATOR

Features

- ❖ Excellent Flat Response
- ❖ Pass DC or DC Block
- ❖ Passes GPS, Galileo & GLONASS L1/L2
- ❖ 0dB to 40dB Variable Gain



Description

Designed with the thin link margins of satellite navigation systems in mind, the AT11V Attenuator covers the GPS, Galileo, and GLONASS frequencies. The AT11V GPS Variable Attenuator is a one input one output RF device. The most common use is to vary the input level to a GPS receiver or a GPS test set controlled via a potentiometer with an external knob. AT11V Variable Attenuator provides a range of attenuation from 0 to 40dB. The AT11V also includes the option to pass the receive antenna LNA DC bias voltage through the device or to block the DC path to the antenna.

The AT11V attenuator comes with many available options to meet your specific needs. Please call, fax, email (sales@gpssource.com), or visit our website (www.gpssource.com) for further information on product options & specifications.

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Electrical Specifications, Operating Temperature -40 to 85⁰ C

Parameter	Conditions	Min	Typ	Max	Units
Freq. Range	IN – OUT, IN/OUT-50Ω	1		2	GHz
In/Out Imped.	IN, OUT		50		Ω
Attenuation ⁽¹⁾	IN – OUT, IN/OUT-50Ω	-2	As Specified	-40 ⁽³⁾	dB
Input SWR	OUT Port - 50Ω			1:5:1	-
Output SWR	IN Port - 50Ω			1:5:1	-
Gain Flatness	L1 – L2 , IN – OUT, IN/OUT-50Ω			2	dB
DC IN	Pass DC	Powered, Mil. Conn. Or Quick Connect Option	7 ⁽¹⁾	32	VDC
	Powered	DC Input on IN/OUT Port	3	16	VDC
Device Current	Current Consumption of device, excludes Ant. Cur.			16 ⁽²⁾	mA
Max RF Input	Max RF input without damage			10	dBm

Notes:

- DC IN for powered option must be 2V greater than desired DC Voltage Out
- Maximum combined DC current draw out all ports of the device is a function of the DC input voltage and desired DC output voltage , according to the following:

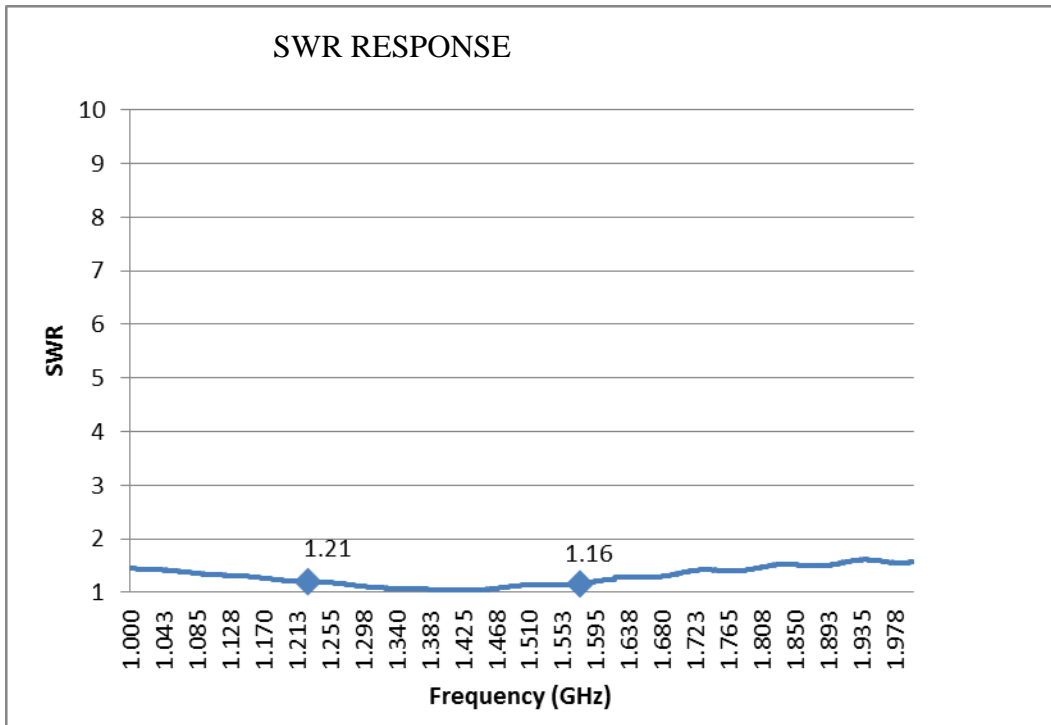
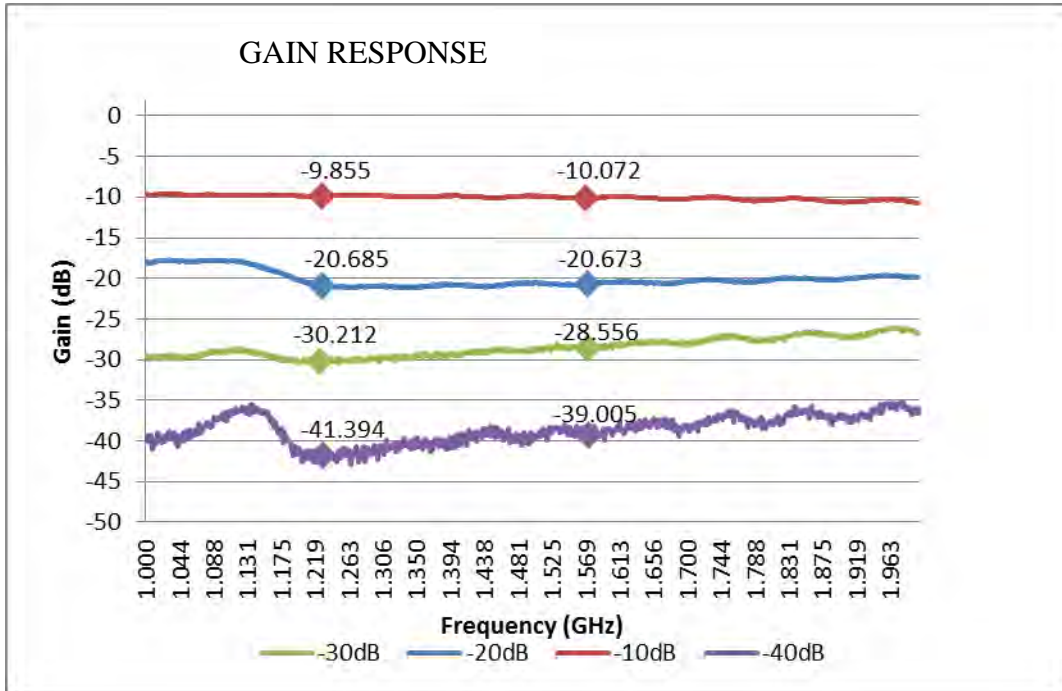
$$I_{out} \leq 1.4 / (V_{DC IN} - V_{DC OUT}) - 0.007 \text{ Amps}$$

For powered option with a wall mount transformer (Voltage Input = 110/220/240 VAC), V_{DC IN} is 9V.

- The SWR specification is not met for attenuation greater than 30dB.

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Performance Data



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Available Options:

Power Supply Options:		
Source Voltage Options	Voltage Input	Type
	110 VAC	Wall Mount Transformer
	220 VAC	Wall Mount Transformer
	240 VAC (U.K.)	Wall Mount Transformer
	DC 5-28 VDC	Military Style Connector or Tinned Leads
Output Voltage Options ⁽¹⁾	DC Voltage Out ⁽²⁾	
	3.3	
	5	
	7.5	
	9	
	12	
	Variable (3-12V)	
Custom		
RF Connector Options:		
Connector Options	Connector Type	Limitations
	N (Male & Female)	
	SMA (Male & Female)	
	TNC (Male & Female)	
	SMB (Female)	
Housing Options:		
Housings	Housing Type	Limitations
	Standard	None
Port Options:		
Pass DC ⁽¹⁾	IN Port Passes DC	
DC Blocked ⁽¹⁾	IN Port Blocks DC	

Notes:

1. With Powered Option, any or all RF ports (input or output) can be DC Blocked or can pass the powered DC voltage
2. Maximum combined DC current draw out all ports of the device is a function of the DC input voltage and desired DC output voltage , according to the following:

$$I_{out} \leq 1.4 / (V_{DC IN} - V_{DC OUT}) - 0.007 \quad \text{Amps (or 250mA max)}$$

For powered option with a wall mount transformer (Voltage Input = 110/220/240 VAC), $V_{DC IN}$ is 9V.

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Part Number

AT11V – P110 / 5 – SF

Product:
Standard

Source Voltage:
P110 – Transformer,
P220 – Transformer,
P240 – Transformer,
PM – Military Connector (User supplies DC)
PMS – Military Connector (User supplies DC)

Output Voltage:
3.3, 5, 7.5, 9, 12, XX, V – Denotes Output Voltage
(XX – custom output voltage, V – variable)

Connector Options:
NM – N, Male
NF – N, Female
SM – SMA, Male
SF – SMA, Female
TM – TNC, Male
TF – TNC, Female

For help in creating the part number to meet your exact needs, contact us at Sales@gpssource.com or visit our website at www.gpssource.com.