S18

GPS 1 x 8 Splitter

Features

- Amplified to Preserve Link Margins
- Passes GPS, Galileo & GLONASS L1/L2
- Excellent Gain Flatness
- RoHS/WEEE Compliant
- Designed to Mil. Std. 810

Description

The S18 GPS Splitter is a one-input, eight-output GPS device. This product typically finds application where an input from an active GPS roof antenna is split evenly between eight receiving GPS units. In this scenario, the S18 can be configured to pass DC from any RF output to the antenna input port in order to power an active GPS antenna on that port. All DC blocked outputs would feature a 200 Ohm DC load to simulate an antenna DC current draw for any receiver connected to those ports.

The S18 splitter 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 and specifications.

Electrical Specifications, Operating Temperature -40 to 85^{0}C

Parameter		Conditions	Min	Typ	Max	Units
Freq. Range		Ant – Any Port, Unused Ports - 50 Ω	1.1		1.7	GHz
In/Out Imped.		Ant, J1, J2, J3, J4, J5, J6, J7, J8		50		Ω
Gain(4)(5)		Ant – Any Port, Unused Ports - 50 Ω				dB
-Amplified (Norm)			16.5	18	19.5	
-Amplified (Cust Gain)		As Specified, XdB	X-1	X	X+1	
Input SWR(5)		All Ports 50Ω			2.0:1	-
Output SWR(5)		All Ports 50Ω			2.0:1	-
1dB Comp. Pt. (Ampl.)		All Ports 50Ω		-32		dBm
Input IP_3 (Ampl.)		All Ports 50Ω		-24		dBm
Max RF Input -Amplified		Max RF input without damage			0	dBm
Noise Figure-Amplified		Ant – Any Port, Unused Ports - 50 Ω			2.2	dB
Gain Flatness(5)		|L1 - L2|, Ant – Any Port, Unused Ports - 50 Ω		2		dB
Amp. Balance		|J1 - J2|, Ant – Any Port, Unused Ports - 50 Ω			0.5	dB
Phase Balance		Phase (J1 - J2), Ant – Any Port, Unused Ports - 50 Ω			1.0	deg
Group Delay Flatness		$\tau_{d,max}$ - $\tau_{d,min}$, Ant – Any Port			<1	ns
Isolation(4)						
-Amplified (Norm)		Adjacent Ports: Ant - 50Ω	13			dB
		Opposite Ports: Ant - 50Ω	18			dB
-Amplified (Hi Iso.)		Adjacent Ports: Ant - 50Ω	28			dB
		Opposite Ports: Ant - 50Ω	34			dB
AC IN	110	Wall Mount Transformer(2)		110		VAC
	220/240	Wall Mount Transformer (Various Intl. plug types available)(2)		230		VAC
DC IN	DC Blk	Any DC Blocked Port with a 200 Ω Load			14	VDC
	Pass DC -Amplified	Non-Powered Configuration, Inline DC Voltage on J1 Output	3		16	VDC
	Powered	Powered, Mil. Conn. or Quick Connect Option	3(1)		28	VDC
Device Current		Current Consumption of device, excludes Ant. Cur.			16	mA
Ant/Thru Current	Pass DC	Non-Powered Configuration, DC Input on J1			250	mA
	Powered	Powered, Mil. Conn. or Quick Connect Option			Note 2	mA

Notes:

1. DC IN for powered option must be 2V greater than desired DC Voltage Out
2. Maximum DC IN is 35V when 1275B powered option is included
3. 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:

$I_{out} \leq 1.4 / (V_{DC\ IN} - V_{DC\ OUT}) - 0.016$ Amps

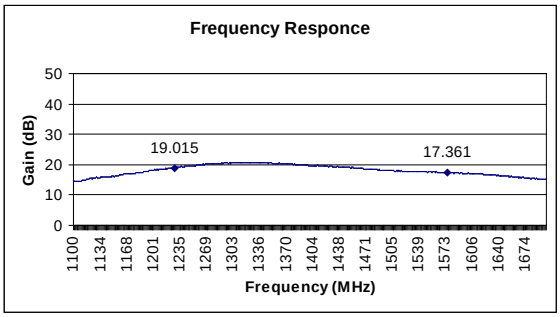
For powered option with a wall mount transformer
(Voltage Input = 110/220/240 VAC), $V_{DC\ IN}$ is 9V.

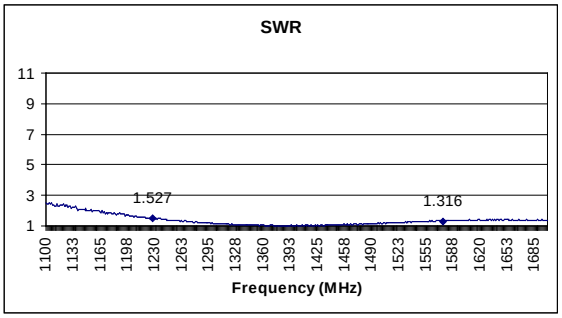
4. Choose Custom Gain Option to increase port-to-port isolation
5. Performance guaranteed for N(F) connectors.

GPS SOURCE
GPS LIVE INSIDE
64 N. Mission Drive
Pueblo, CO 81007
Tel: 719.561.9520 fax: 719.565.0890
Email: techsales@gpssource.com
Author: Preetha Sayuj
Department: R&D

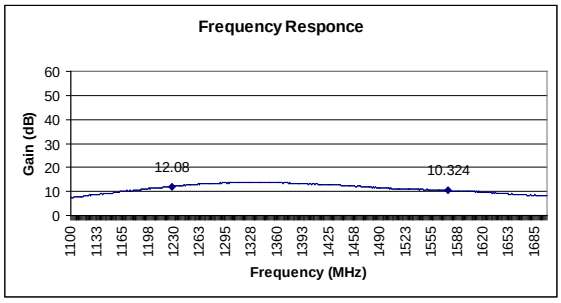
Performance Data:

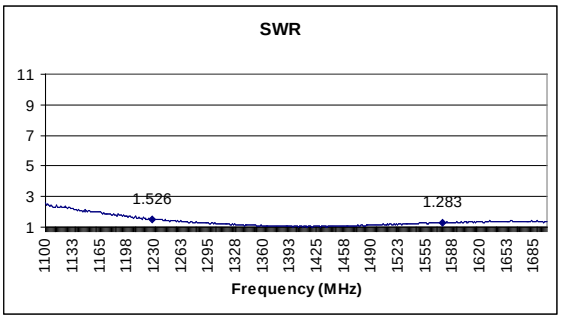
S18 Active – Normal





S18 Active - Hi Isolation





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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 w/Quick Connects
Output Voltage Options(1)	DC Voltage Out(2)	
	3.3	
	5	
	7.5	
	9	
	12	
	Custom	
RF Connector Options:		
Connector Options	Connector Type	Limitations
	N (Male & Female)	
	SMA (Male & Female)	
	TNC (Male & Female)	
Housing Options:		
Housings	Housing Type	Limitations
	Standard	None
	Slimline	Powered Option Not Ava. Connectors Not Available: N, TNC
Port Options:		
Pass DC(1)	All Ports Pass DC	
DC Blocked(1)	J2 – J8 are DC Blocked & 200Ω Loaded, DC is passed J1 to ANT	

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:

$$I_{out} \leq 1.4 / (V_{DC\,IN} - V_{DC\,OUT}) - 0.016 \quad \text{Amps (or 250mA max)}$$

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

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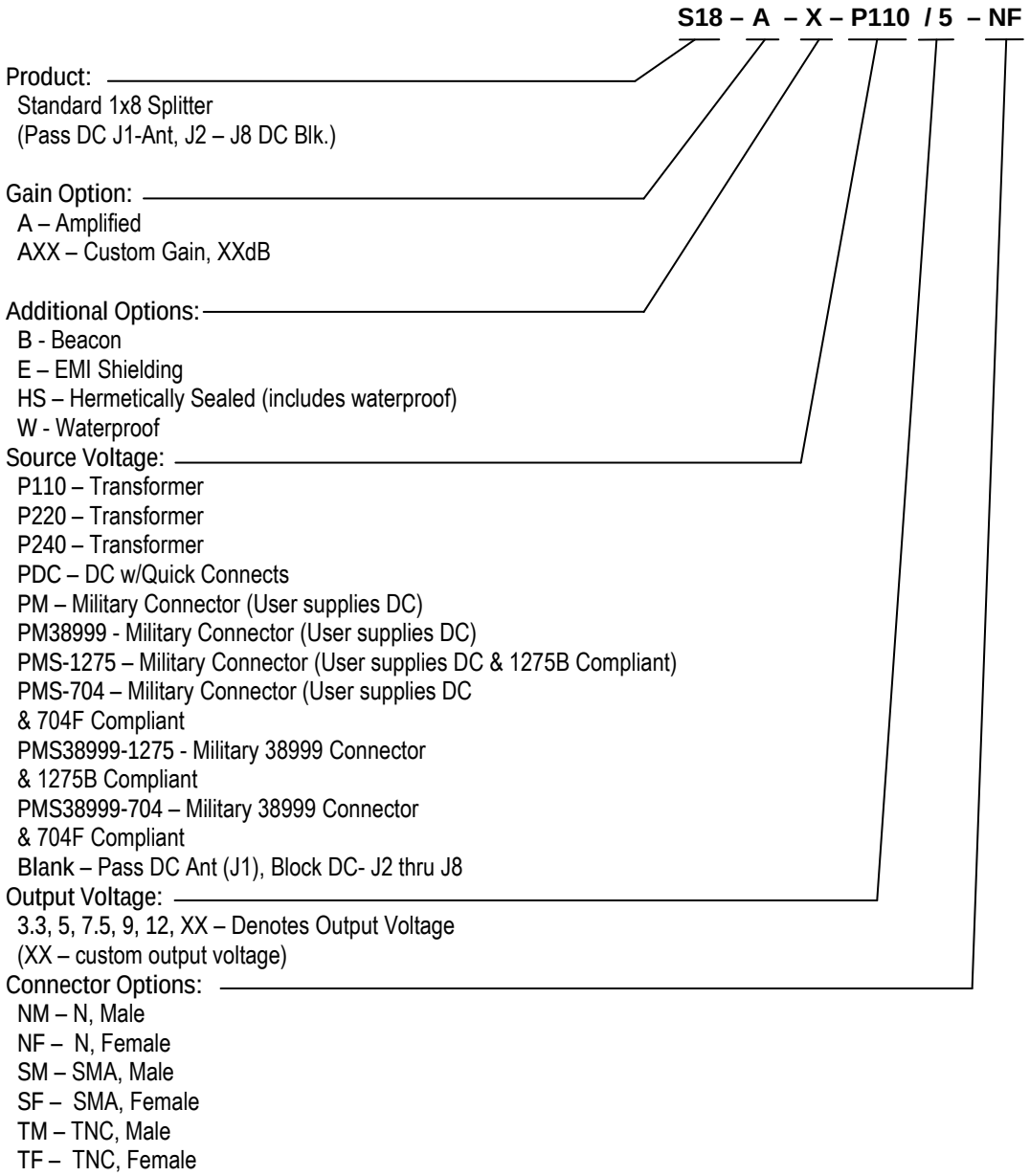
Part Number:



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

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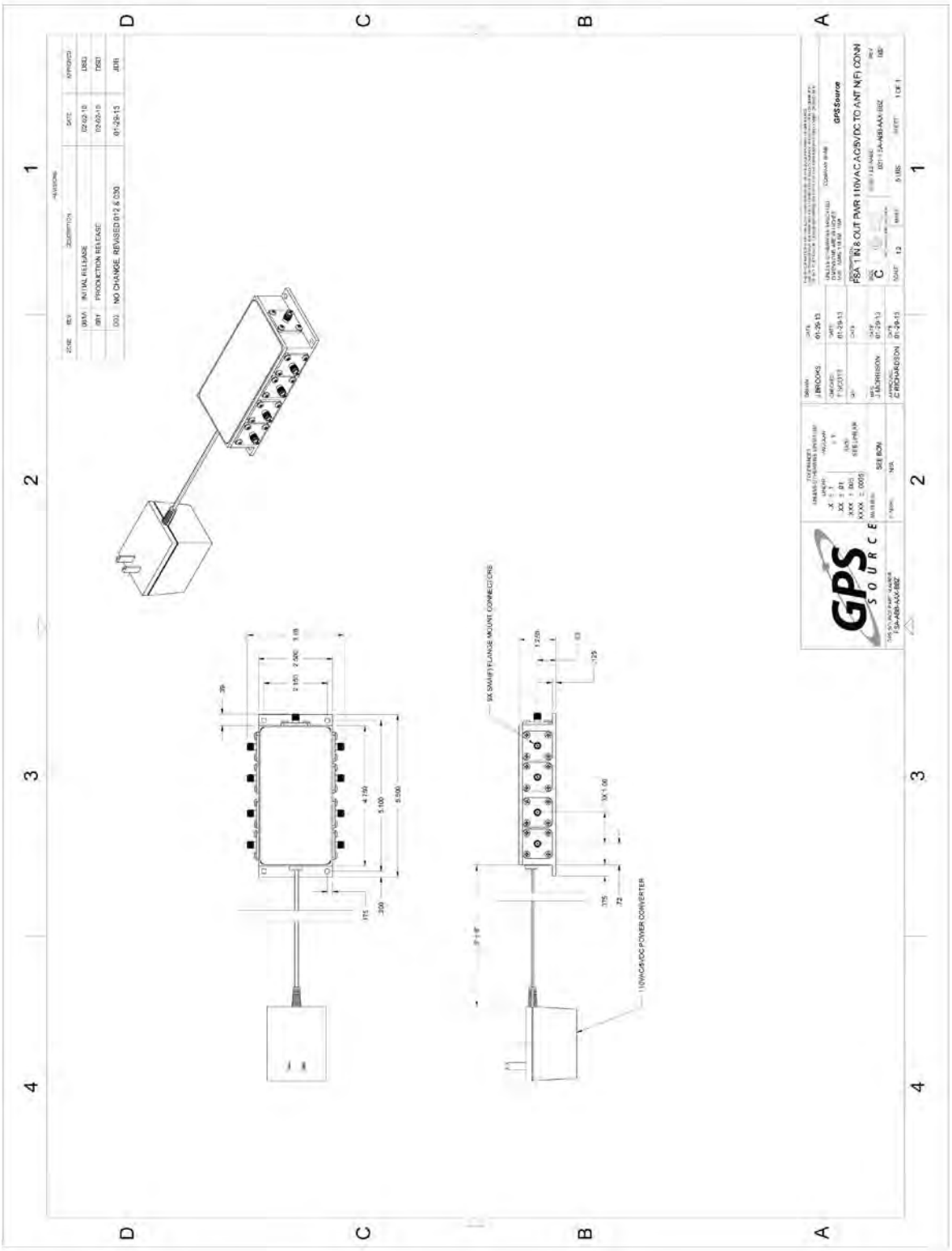

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