

# RMS18 Splitter

## Technical Product Data

### Features

- **Standard 19" Rack Mount Configuration**
- **Passes GPS, Galileo & GLONASS L1/L2**
- **Numerous Options Available**



### Description

The RMS18 Rack Mount Splitter is a one-input, eight-output GPS signal divider. This product typically finds application in a facility where an input from a single active GPS roof antenna is split evenly between eight outputs to create an indoor GPS signal distribution network. Typically the RMS18 is configured with an 110VAC input (230VAC also available) and a regulated DC output voltage is passed to the antenna input port in order to power an active GPS antenna on that port. In this scenario, the RF outputs (J1 – J8) would feature a 200 Ohm DC load to simulate an antenna DC current draw for any receiver connected to those ports.

The RMS18 splitter comes with many available options to meet your specific needs. Please call, fax, email ([sales@gpssource.com](mailto:sales@gpssource.com)), or visit our website ([www.gpssource.com](http://www.gpssource.com)) for further information on product options, specifications, or to receive an easy to use order sheet.

### Electrical Specifications, Operating Temperature -40 to 85 °C

Parameter		Conditions	Min	Typ	Max	Units
Freq. Range		Ant – Any Port, Unused Ports - 50 Ω	1		1.8	GHz
In/Out Imped.		Ant, J1, J2, J3, J4, J5, J6, J7, J8		50		Ω
Gain -Amplified (Cust) -Amplified (Hi Iso.)		Ant – Any Port, Unused Ports - 50 Ω		TBD		dB
			1	0	2	
Input SWR		All Ports 50Ω			2.0:1	-
Output SWR		All Ports 50Ω			2.0:1	-
Noise Figure		Ant – Any Port, Unused Ports - 50 Ω			2.2	dB
Gain Flatness		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 -Amplified (Hi Iso.)		Adjacent Ports: Ant - 50Ω	38			dB
		Opposite Ports: Ant - 50Ω	44			dB
AC IN	110	Wall Mount Transformer <sup>(3)</sup>		110		VAC
	220/240	Wall Mount Transformer (Various Intl. plug types available) <sup>(3)</sup>		230		VAC
DC IN	DC Blk	Any DC Blocked Port with a 200 Ω Load			14	VDC
	Pass DC -Amplified	Non-Powered Configuration, DC Input on J1	3		16	VDC
	Powered	Powered, Mil. Conn. or Quick Connect Option	3 <sup>(1)</sup>		28 <sup>(2)</sup>	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 3	mA
Max RF Input -Amplified		Max RF input without damage			0	dBm

**Notes:**

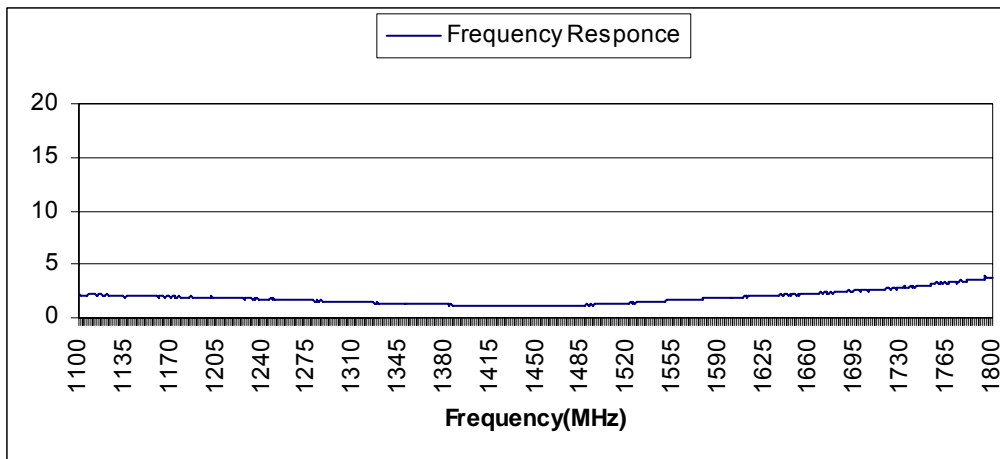
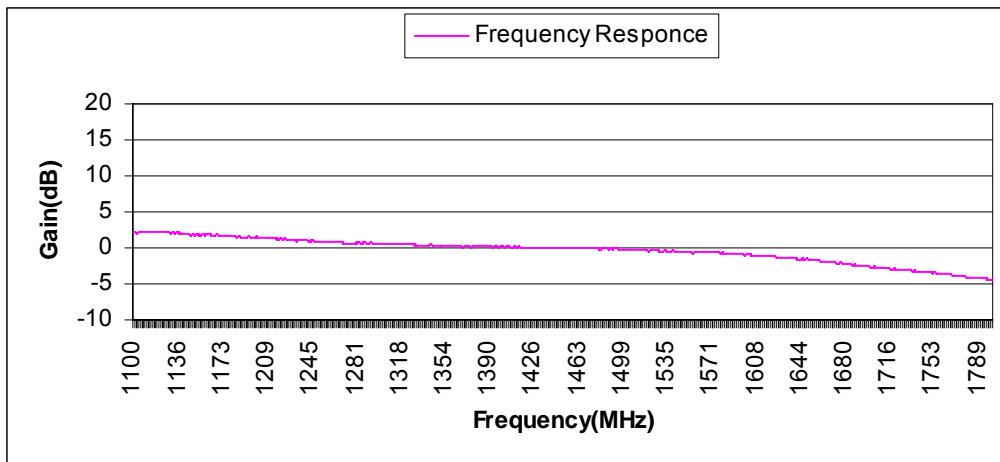
1. DC IN for powered option must be 2V greater than desired DC Voltage Out
2. Maximum combined DC current draw out all ports of the device is a function of the DC input voltage and desired DC output voltage , according to the following:

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

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

Performance Data:

RMS18 Active - Hi Isolation



Available Options:

Power Supply Options:		
<b>Source Voltage Options</b>	<b>Voltage Input</b>	<b>Type</b>
	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
<b>Output Voltage Options<sup>(1)</sup></b>	<b>DC Voltage Out<sup>(2)</sup></b>	
	3.3	
	5	
	7.5	
	9	
	12	
	Variable (3-12V)	
Custom		
RF Connector Options:		
<b>Connector Options</b>	<b>Connector Type</b>	<b>Limitations</b>
	N (Male & Female)	
	SMA (Male & Female)	
	TNC (Male & Female)	
	BNC (Male & Female)	Performance Not Guaranteed
Housing Options:		
<b>Housings</b>	<b>Housing Type</b>	<b>Limitations</b>
	19 x 8 x 1.75 in Rack Mount	None
Port Options:		
Pass DC <sup>(1)</sup>	All Ports Pass DC	
DC Blocked <sup>(1)</sup>	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.

Part Number:

**RMS18 - A - P110 / 5 - NF**

Product:

Standard 1x8 Splitter  
(Pass DC J1-Ant, J2 – J8 DC Blk.)

Gain Option:

**A** – Amplified  
**H** – Hi Isolation

Source Voltage:

**P110** – Transformer,  
**P220** – Transformer,  
**P240** – Transformer,  
**PDC** – DC w/Quick Connects  
**PM** – 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:

**NF** – N, Female  
**SF** – SMA, Female  
**TF** – TNC, Female  
**BF** – BNC, Female

For help in creating the part number to meet your exact needs, contact us at [Sales@gpssource.com](mailto:Sales@gpssource.com) or visit our website at [www.gpssource.com](http://www.gpssource.com).