

## RMS132 SPLITTER

### Rack Mount 1x32 GPS Signal Divider



#### DESCRIPTION

The RMS132 Rack Mount Splitter is a one input, 32 output GPS signal divider. Typical uses for an input from a single active GPS roof antenna which is split evenly between 32 outputs to create an indoor GPS signal distribution network. The RMS132 is typically configured with a 110VAC input (230VAC option) and a regulated DC output voltage passed to the antenna input port in order to power an active GPS antenna on that port. In this scenario, the RF outputs (J1 - J32) would feature a 200 $\Omega$  DC load to simulate an antenna DC current draw for any receiver connected to those ports.

#### FEATURES

- Standard 19 inch Rack Mount Configuration
- Passes GPS, Galileo, and GLONASS L1/L2

#### OPTIONS

The RMS132 splitter comes with many available options to meet specific needs. Please contact GPS Source via phone, fax, email, or visit the website for further information on product options and specifications.

#### RMS132 Splitter Data Sheet

# 1. RMS132 Specifications

## 1.1 Electrical Specifications

**Table 1-1. Electrical Specifications**

Operating Temperature -40°C to 85°C

Parameter		Conditions	Min	Typ	Max	Units
<b>Frequency Range</b>		Ant: Any Port; Unused Ports: 50Ω	1.2		1.6	GHz
<b>In/Out Impedance</b>		Ant: J1 – J32		50		Ω
<b>Gain</b>	Standard	Amplified Ant: Any Port; Unused Ports: 50Ω	2	4	6	dB
	Custom <sup>(1)</sup>	Amplified As Specified (xdB)	0	TBD	16	
<b>Input SWR</b>		All Ports 50Ω			2:1	—
<b>Output SWR</b>		All Ports 50Ω			2:1	—
<b>Noise Figure</b>		Ant: Any Port; Unused Ports: 50Ω			3	dB
<b>Gain Flatness<sup>(3)</sup></b>		[L1 – L2] Ant: Any Port; Unused Ports: 50Ω			4	dB
<b>Amp. Balance</b>		[J1 – J2] Ant: Any Port; Unused Ports: 50Ω			4	dB
<b>Phase Balance</b>		Phase (J1 – J2) Ant: Any Port; Unused Ports: 50Ω			1	Degree
<b>Group Delay Flatness</b>		$T_{d,max} - T_{d,min}$ ; Ant: Any Port			1	ns
<b>Isolation - Amplified (HI Iso.)</b>		Measured at 1227MHz and 1575MHz				dB
		Adjacent Ports: Ant – 50Ω	24			
		Opposite Ports: Ant – 50Ω	38			
<b>Current</b>		Current Consumption of Device (Excludes Draw)			80	mA
<b>Current Draw</b>		Input Port			100 <sup>(2)</sup>	mA
<b>Max RF Input</b>	Amplified	Max RF Input Without Damage			0	dBm

- Notes:
1. Custom gain options available
  2. The maximum combined DC current draw from all ports is a function of the DC input voltage and desired DC output voltage, according to:  $I_{out} \leq 1.4 / (V_{DC IN} - V_{DC OUT}) - 0.080A$   
For the powered option with a wall mount transformer (Voltage Input = 110/220/240 VAC), VDC IN is 9V.
  3. Variable gain option, gain flatness is 5dB.

**Table 1-2. AC and DC IN Specifications**

Parameter		Condition	Min	Typ	Max
<b>AC IN</b>	110	Wall Mount Transformer <sup>(2)</sup>		110	
	220/240	Wall Mount Transformer (International Plugs Available) <sup>(2)</sup>		230	
<b>DC IN</b>	DC Block				14
	Pass DC	Amplified			16
	Powered		Military or Leads Connect Option	3 <sup>(1)</sup>	

- Notes:
1. DC IN for powered option must be 2V greater than desired DC Voltage Out.
  2. The maximum combined DC current draw from all ports is a function of the DC input voltage and desired DC output voltage, according to:  $I_{out} \leq 1.4 / (V_{DC IN} - V_{DC OUT}) - 0.080A$   
For the powered option with a wall mount transformer (Voltage Input = 110/220/240 VAC), VDC IN is 9V.

## 2. Performance Data

### 2.1 RMS132 — Active Hi Isolation

Figure 2-1. Active Hi Isolation RMS132 Splitter: Gain vs. Frequency

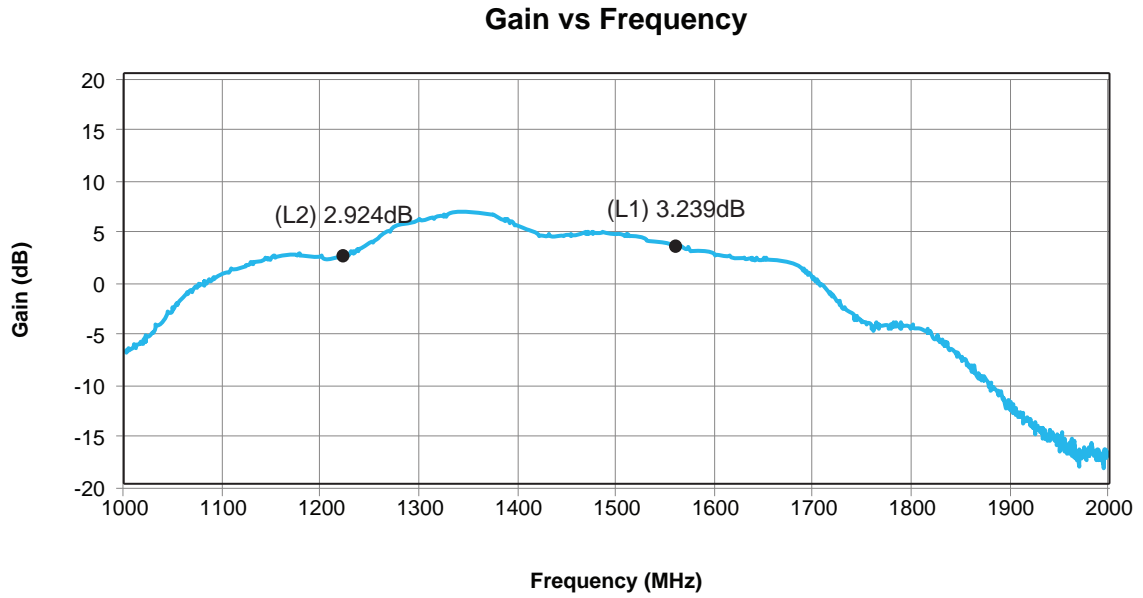
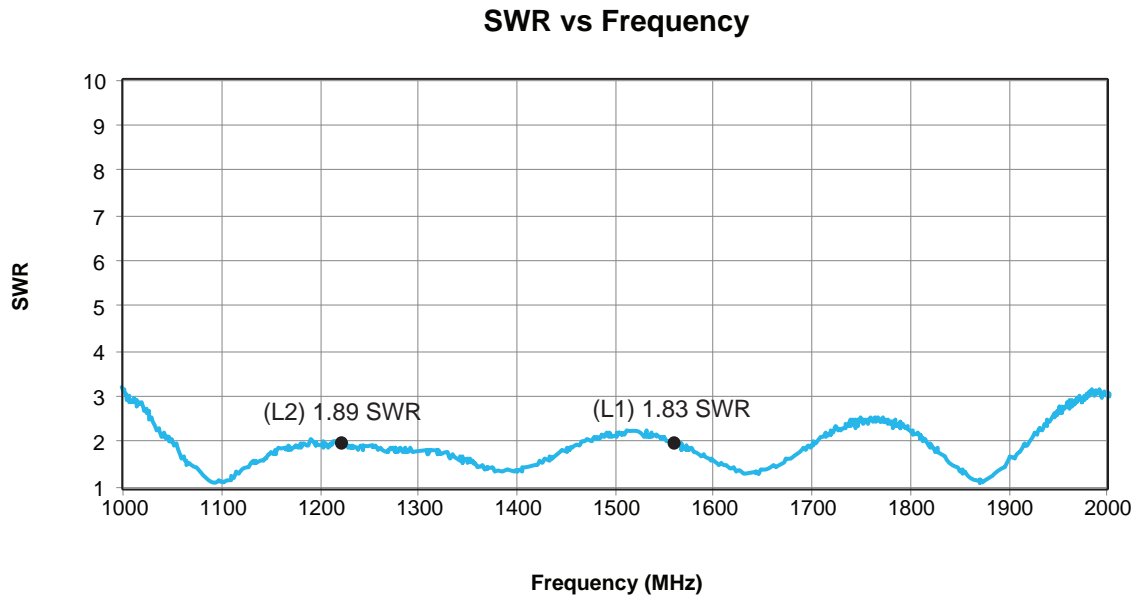


Figure 2-2. Active Hi Isolation RMS132 Splitter: SWR vs. Frequency



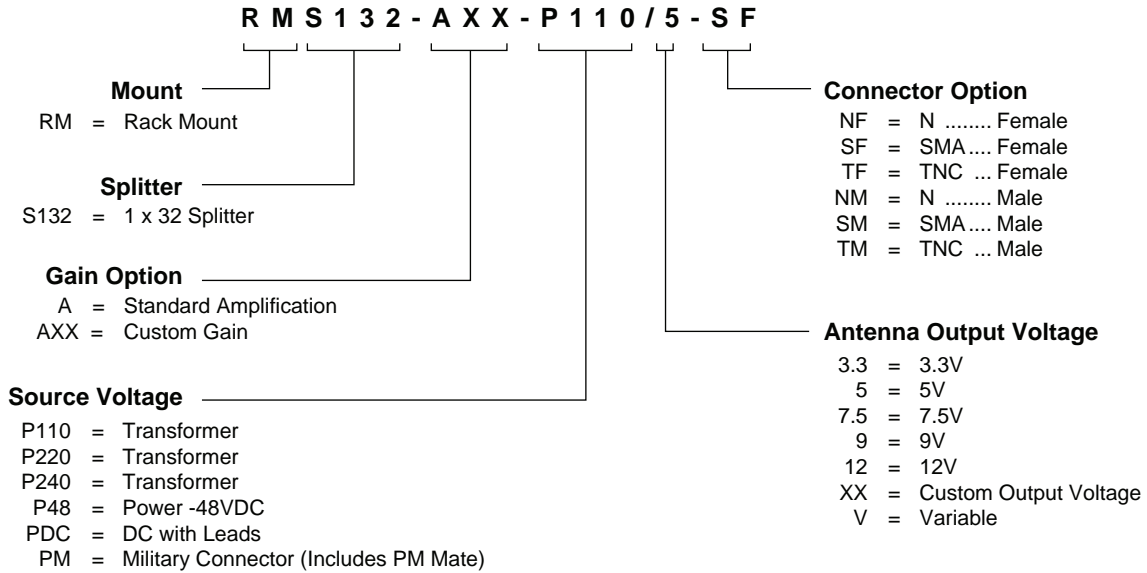
### 3. Product Options

Table 3-1. RMS132 Available Options

Power Supply		
Source Voltage	Voltage Input	Type
	110VAC	Wall Mount Transformer
	220VAC	Wall Mount Transformer
	240VAC (U.K.)	Wall Mount Transformer
	DC 5-28VDC	Military Style Connector or with Leads
Output Voltage <sup>(1)</sup>	DC Voltage Out	
	3.3	
	5.0	
	7.5	
	9.0	
	12.0	
	Variable (3V to 12V)	
	Custom	
RF Connector		
Connector	Connector Type	Limitations
	N (Female/Male)	N/A
	SMA (Female/Male)	N/A
	TNC (Female/Male)	N/A
Housing		
Housing	Housing Type	Limitations
	19 x 8 x 1.75 in Rack Mount	N/A
Port <sup>(1)</sup>		
DC Blocked <sup>(1)</sup>	J1 – J32 are DC Blocked with 200Ω Load; DC is passed to ANT	

Notes: 1. RF outputs are DC Blocked standard. Call for special pass DC configurations.

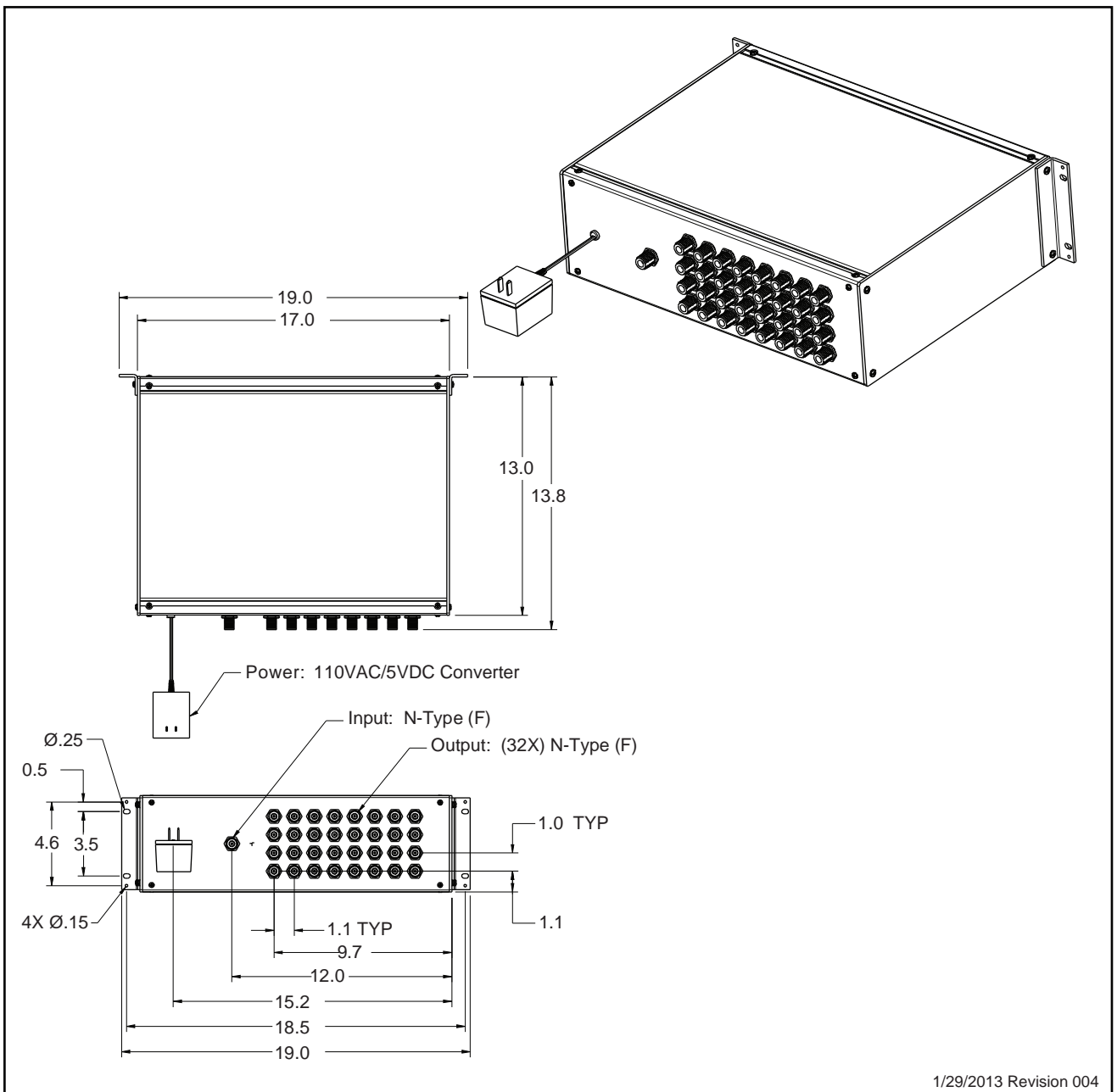
## 4. Product Code Decoder



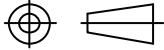
Note: To have product/part codes customized to meet exact needs, contact GPS Source at [techsales@gpssource.com](mailto:techsales@gpssource.com) or visit the website at [www.gpssource.com](http://www.gpssource.com).

## 5. Mechanical Drawing

### RMS132 Splitter — FSA-ACS-ABX-BBZ



1/29/2013 Revision 004

GPS Source Part No. <b>FSA-ABS-ABX-BBZ</b>	Finish <b>As Provided</b>	Size <b>C</b>	Mass <b>16.85lb</b>	Tolerances	
Description <b>Rack Mount RMS132 GPS Splitter FSA 1 IN 32 OUT PWR 110/5VDC N(F)</b>	Material <b>See BOM</b>	3 <sup>rd</sup> Angle Projection 		Linear .X = ±0.1 .XX = ±0.01 .XXX = ±0.005	Angular ±1° RADII See Linear
All materials and finishes shall comply with European Union RoHS and are lead free. Dimensions are in inches unless otherwise specified.					



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## **RMS132 Splitter Data Sheet**

059-FSA-ACS-ABX-BBZ-005

Page 8 of 8, 10/31/2016

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