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RMS116 Splitter

Technical Product Data

Features

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

Description

The RMS116 Rack Mount Splitter is a one-input, sixteen-output GPS signal divider. This product typically finds application where an input from a single active GPS roof antenna is split evenly between sixteen outputs to create an indoor GPS signal distribution network. The RMS116 is shown 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. The RF outputs (J1 – J16) feature a 200 Ohm DC load to simulate an antenna DC current draw for any receiver connected to those ports.

The RMS116 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°C

Parameter		Conditions		Min	Typ		Max	Units
Freq. Range		Ant – Any Port, Unused Ports - 50 Ω		1.2			1.6	GHz
In/Out Imped.		Ant, J1-J16			50			Ω
Gain -Amplified (Hi Iso. Standard)		Ant – Any Port, Unused Ports - 50 Ω		7	8		9	dB
-Variable				0			30	
Input SWR		All Ports 50Ω					2.0:1	-
Output SWR		All Ports 50Ω					2.0:1	-
Gain Flatness		IL1 - L2I, Ant – Any Port, Unused Ports - 50 Ω					3	dB
Amp. Balance		IJ1 - J2I, 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.)		Measured at 1227MHz and 1575MHz						
		Adjacent Ports: Ant - 50Ω		24				dB
		Opposite Ports: Ant - 50Ω		38				dB
AC IN	110	Wall Mount Transformer[4][5]			110			VAC
	220/240	Wall Mount Transformer (Various Intl. plug types available)[4][5]			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[1][2]			28[1][2]	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[3]	mA
	Powered	Powered, Mil. Conn. or Quick Connect Option					Note 2	mA
Max RF Input -Amplified		Max RF input without damage					0	dBm
Noise Figure		Amplified (Hi Iso. Standard)	Temp		L1	L2		dB
			+85C		4.0	4.1		
			+25C		3.2	3.4		
			-40C		2.2	2.4		

Notes:

1. DC IN for powered option must be 3V greater than desired DC Voltage Out
2. Maximum DC total current draw out all port[s] of the device is a function of the DC input voltage and the output voltage where the power dissipation must be less than 1 watt @ 25C:

$$(V_{DC\ IN} - V_{DC\ OUT} - 1.2) * (I_{out} + I_{internal}) \leq 1W\ @\ 25C$$

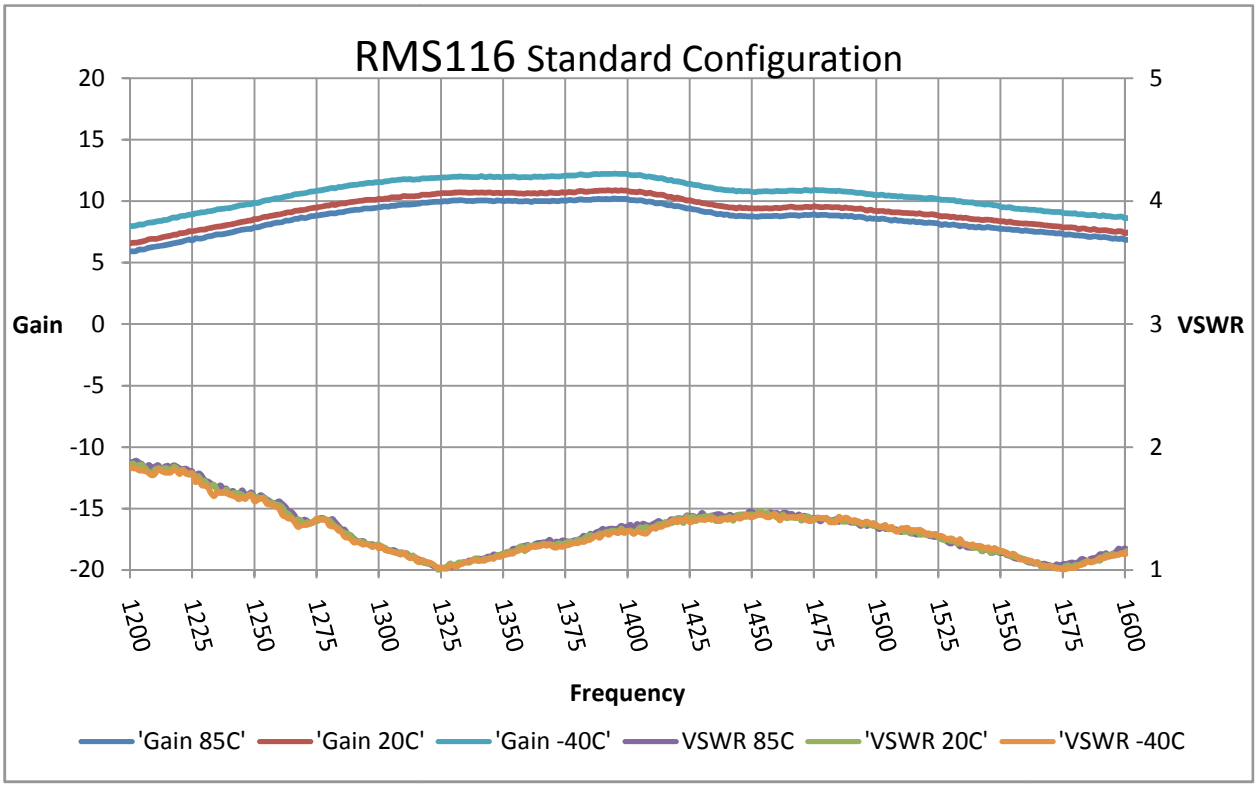
See http://gpssource.com/faq/AppNotes/voltage-1.pdf for more information

3. Max current for any single port 250ma.

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

5. Higher DC voltages are available from transformers if needed, e.g if you needed variable DC voltage of 12 to 3.3 then a transformer with a 15V DC output would be required.

Performance Data:



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	
	Variable (3-12V)	
	Custom	
RF Connector Options:		
Connector Options	**Connector Type**	**Limitations**
	N (Male & Female)	
	SMA (Male & Female)	
	TNC (Male & Female)	
	BNC (Male & Female)	Performance Not Guaranteed
Housing Options:		
Housings	**Housing Type**	**Limitations**
	19” x 8” x 3.5” in Rack Mount	None
Port Options:		
Pass DC(1)	All Ports Pass DC	
DC Blocked(1)	J2 – J16 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

Part Number:

RMS116 – A – P110 / 5 –NF

Product:
Standard 1x16 Splitter
(Pass DC J1-Ant, J2 – J16 DC Blk.)

Gain Option:
A – Amplified
H – Hi Isolation
V – Variable (0-30)

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 or visit our website at www.gpssource.com.

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Mechanical: