



DRMALDCBS2X32

Dual Antenna Rack Mount Amplified 2X32 GPS Splitter Technical Product Data



Features

- **Two Antenna Input**
Allow for dual antenna Input
- **Extremely Flat Group Delay**
Less that 1ns variation
- **High Isolation Option**
>35dB of isolation between adjacent output ports
- **Phase Matched Outputs**
Phase (J1 – J2) < 1.0°

Description

The DRMALDCBS2X32 GPS Rack Mount Amplified Splitter is a TWO input, thirty-two output device with –2dB max signal loss. The frequency response covers the GPS L1 & L2 bands with excellent gain flatness. In the normal configuration, the splitter is powered by a transformer that supplies power to the splitter's amplifier and roof antenna. The outputs are DC loaded with a 200Ω resistor to simulate the antenna current draw. This product is ideally suited for timing and testing applications where the GPS carrier signal is required by up to 32 GPS devices simultaneously.

Electrical Specifications, T_A = 25⁰C

Parameter	Conditions	Min	Typ	Max	Units
Freq. Range	Ant – Any Output, Unused Outputs - 50Ω	1.1		1.7	GHz
In/Out Imped.	Ant, J1, J2, J3, J4, J5, J6, J7, J8		50		Ω
Gain	Ant –Any Output, Unused Outputs, - 50Ω	13.0	10	.0	dB
Gain-High Isolation	Ant – Any Output, Unused Outputs - 50Ω	-2.0	0.0	2.0	dB
Input SWR	All ports - 50Ω			2.0:1	-
Output SWR	All ports - 50Ω			1.3:1	-
Noise Figure	Normal Config., Ant – Any Output, Unused Outputs - 50Ω		3.8	4.3	dB
Gain Flatness	L1 – L2 ; Ant – Any Output, Unused Outputs - 50Ω		0.5	1	dB
Amplitude Balance	J1 – J2 ; Ant – Any Output, Unused Outputs - 50Ω			0.5	dB
Phase Balance	Phase (J1 – J2) ; Ant – Any Output, Unused Outputs - 50Ω			1.0	deg
Isolation	Hi Isolation Config, Adjacent Ports, Ant - 50Ω (see plots)	35			dB
Group delay Flatness	τ _{d,max} - τ _{d,min} : Ant – J1, J2 - 50Ω ; Ant – J2, J1 - 50Ω			1	ns
Current	Amplifier Current Draw @ 50Ω			15	mA

Available Options

Network Power Supply		
Source Voltage Options	VOLTAGE INPUT	
	110VAC	Transformer (Wall Mount)
	220 VAC	Transformer (Wall Mount)
	240 VAC (United Kingdom)	Transformer (Wall Mount)
Output Voltage Options ⁽¹⁾	Customer Supplied DC 9-32 VDC	Military Style Connector
	DC VOLTAGE OUT	
	MAX CURRENT OUT FOR CORRESPONDING V _{out} ⁽²⁾	
	5 V	110mA
	7.5V	130mA
	9V	140mA
	12V	170mA
15V	210mA	
Custom	TDB	
Output Port Isolation Options		
Isolation Options	High Isolation, 35dB min. Output Port – to – Output Port	
Pass/Block DC Options		
DC Blocked ⁽¹⁾	Jx (x=1...32) is DC blocked, Pass DC to ANT.	
RF Connector Options		
Connector Options	CONNECTOR STYLE	
	Type N, TNC, SMA, and BNC	
	CHARGE	
	NC	

(1) With Network Option, any RF port (input or output) can be DC blocked or can pass the network DC voltage.

(2) T_A = +50°C. Assuming Source of 110V or 220V Wall Mount Transformer. In general, maximum output current can be determined by:

$$I_{out} \leq 2.9 / (V_{source\ DC} - V_{out}) \text{ A}$$

Part Number

N HI DRMALDCB S2X32-N/5/110

Network Option:
N = Networked; **Blank** = No Network

Isolation Option:
HI = High Isolation; **Blank** = Amplified

Amplified, Loaded:
D = Dual Antenna
A = Amplified; **L** = 200Ω load/output

Connector Options:
DCB = DC Blocked; **PDC** = Pass DC

Connector Options:
N = N type; **S** = SMA; **T** = TNC; **B** = BNC

DC Output Voltage:
3.3, 5, 7.5, 9, 12, 15, CXX (Custom "XX" denotes desired V)

Source Voltage:
110 -Transformer, **220** – Transformer, **240** – Transformer, **MC** – Military Conn. (User supplies DC Voltage)

Mechanical

Dimensions: Height: 5.4"
 Length: 18.0"
 Width: 17.0"

Weight: 16 lbs.

Operating Temp. Range: -40° to + 75°C