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^{o}

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, $T_A = 25^0C$

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	14.0	15.0	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	$\tau_{d,max} - \tau_{d,min}$: 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	STYLE
	110VAC	Transformer (Wall Mount)
	220 VAC	Transformer (Wall Mount)
	240 VAC (United Kingdom)	Transformer (Wall Mount)
	Customer Supplied DC 9-32 VDC	Military Style Connector
Output Voltage Options (1)	DC VOLTAGE OUT	MAX CURRENT OUT FOR CORRESPONDING Vout(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	CHARGE
	Type N, TNC, SMA, and BNC	NC

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

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

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

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