

MIL-NLDCBS1X3

Military Networked Passive 1X3 GPS Splitter

Technical Product Data

Features

- **Excellent Gain Flatness**
 $|L1 - L2| < 0.7\text{dB}$
- **Extremely Flat Group Delay**
Less than 1ns variation
- **Phase Matched Outputs**
Phase (J1 – J2) $< 1.0^\circ$



Description

The MIL-NLDCBS1X3 GPS Splitter is a one input, three output device. The frequency response covers GPS L1, L2, L5, Galileo, and GLONASS bands with excellent gain flatness. The unit is completely MIL Qualified. It will accept any DC voltage from 8-32 VDC which is regulated down to 5VDC to power the GPS Antenna. The 5 VDC is sent to the antenna via the center conductor on the antenna port. The RF outputs (J2, J3, and J4) are DC Blocked. J2 and J3 ports are TNC connectors and the J4 port is a type N Connector.

Electrical Specifications, $T_A = 25^\circ\text{C}$

Parameter	Conditions	Min	Typ	Max	Units
Freq. Range	Ant – Any Output, Unused Outputs - 50Ω	1.1		1.7	GHz
Input/Output Impedance	J1, Ant, J2, J3, J4		50		Ω
Input/Output SWR	All Unused ports - 50Ω			2.0:1	-
Insertion Loss	Ant – J2- 50Ω	-5.7	-6.3	-7.0	dB
	Ant – J3- 50Ω	-6.4	-7	-7.6	dB
	Ant-J4- 50Ω	-7.9	-8.5	-9.1	dB
Gain Flatness	$ L1 - L2 $: Ant – Any Output, Unused Outputs - 50Ω			0.7	dB
Isolation	Adjacent Ports: Ant - 50Ω	-10	-15		dB
	Opposite Ports: Ant - 50Ω	-15	-20		

Network Power Supply

Source Voltage Options	VOLTAGE INPUT		STYLE	
	Customer Supplied DC 8-32 VDC		Military Style Connector	
	Pin Configuration	A B C	A— (+) positive B—Housing Ground C—Common Ground	
	5 V		120mA	

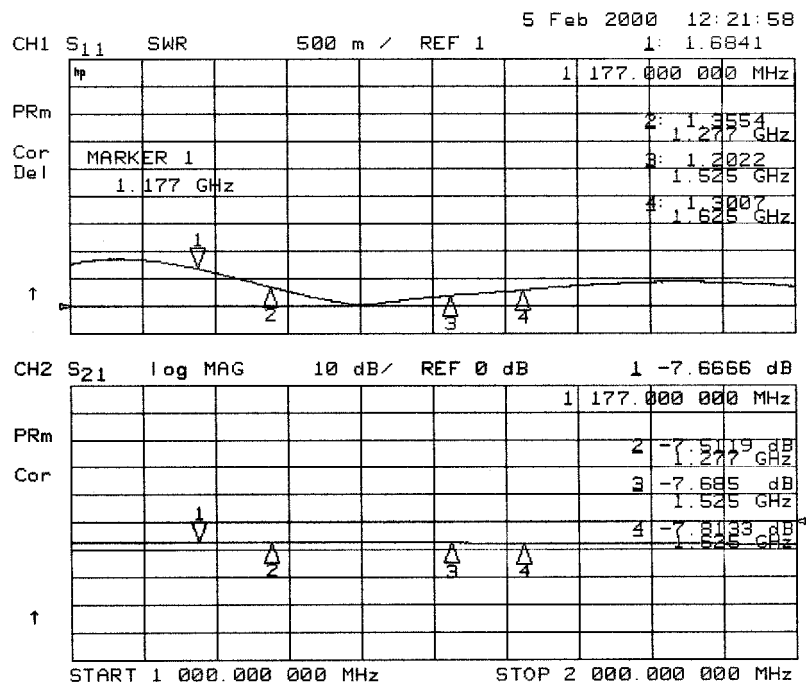
Part Number

MIL N DCB S1X3

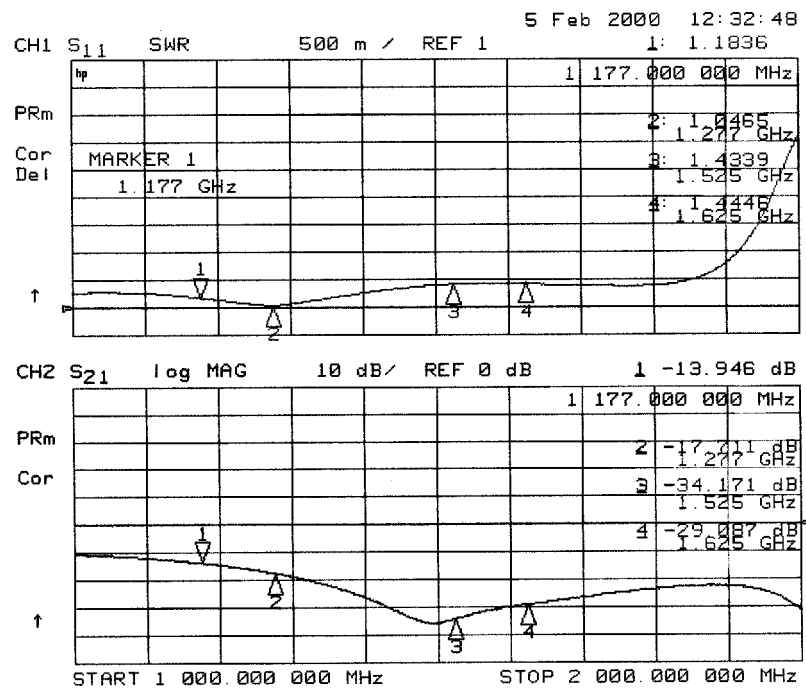
MIL - Military Spec Qualified -----
N - Networked – External Power supply input -----
DCB – DC Blocked -----
S1X3 – Splitter one input three outputs -----

Performance

Input SWR: Ant. J2, J3, J4 -50Ω and Freq. Response: Ant. To J2, J3, J4



Output SWR: Any output, all other ports - 50 Ω , and Adjacent Port Isolation:



Mechanical

Dimensions: Height: 1.25"
Length (not including connectors) Body: 2.25"
Base Plate: 3.00"
Width (not including connectors): 2.25"

Weight: 8.2 oz. (232 grams)

Mil Qualifying Standards:

EMI:

MIL-STD 461/462 CE01, CE04, CS01, CS02, CS06, RE02, RS02, RS03 @ 200 Volts/Meter
(EMI) from 14Khz to 40Ghz

ENVIRONMENTAL:

MIL-STD 810D Vibration(514.3, Proc. 1)
(Environmental) Category 6 (helicopters)
Rain(506.2 Proc. 1)
Humidity(507.2, Proc 2, cycle 4)
Fungus(508.3, Proc. 1)
Salt/Fog(509.2)
Explosive Atmosphere(511.2, Proc 1)
Bench Handling Shock(516.3 Proc 6)
Temp/Altitude(520.0 Proc 3)
Acceleration(513.3, level = 6G's)
Gunfire Vibration(519.3)