



GPS
NETWORKING

MIL-LDCBS1X4

Military 3Z4'GPS Ur kavgt Technical Product Data



Features

- **Passes all GNSS Frequencies (Entire L-band)**
- **Extremely Flat Group Delay**
Less than 1ns variation
- **Military Qualified 1X4 Splitter**
MIL STD 810F, MIL STD 704, MIL STD 1275B
- **Low Insertion Loss**
- **DC Blocked Outputs Feature 200Ω Loads**
Prevent antenna alarm faults from connected devices
- **Phase Matched Outputs**
Phase (J1 – J4) < 1.0°
- **Special Configurations Available By Request**
- **Qual Test Summary Certification Available**

Description

The MIL-LDCBS1X4 GPS Splitter (GNSS Splitter) is a one input, four output passive splitter based on the Wilkinson splitter design. The frequency response covers the entire L-band (all GNSS Frequencies). All Mil Spec splitters passed rigorous MIL-STD 810F testing detailed in the separate Qual Test Summary Certification. The MIL-LDCBS1X2 is standard hermetically sealed, EMI Shielded, Weatherproofed and configured with MIL-STD-704 or MIL-STD 1275B compliant power options. Each DC blocked output is loaded with a 200Ω resistor to simulate the antenna current draw to prevent false antenna alarm faults. Contact GPS Networking Technical Support for any questions regarding standard configurations or special configurations at salestech@gpsnetworking.com or 1-800-463-3063.

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

Parameter	Conditions	Min	Typ	Max	Units
Freq. Range	Ant – Any Output, Unused Outputs - 50 Ω	1.1		1.7	GHz
Input/Output Impedance	Ant, J1, J2, J3, J4		50		Ω
Input SWR	All ports - 50 Ω			2.0:1	-
Output SWR	All ports - 50 Ω			1.5:1	-
Insertion Loss	Ant – Any Output, Unused Outputs - 50 Ω	-7.5	-8.5	-9.5	dB
Gain Flatness	J1 - J4 ; Ant – Any Output, Unused Outputs - 50 Ω			1.0	dB
Amplitude Balance	J1 – J4 ; Ant – Any Output, Unused Outputs - 50 Ω			1.0	dB
Phase Balance	Phase (J1 – J4) ; Ant – Any Output, Unused Outputs - 50 Ω			1.0	deg
Isolation	Adjacent Ports: Ant - 50 Ω Opposite Ports: Ant - 50 Ω	15 22			dB
Group delay Flatness	$\tau_{d,max} - \tau_{d,min}$: Ant – J1 – J4 - 50 Ω ; Ant – J4, J1 - 50 Ω			1	ns

Available Power Options (Networked Option)

Network Power Supply		
Source Voltage Options	VOLTAGE INPUT	STYLE
	110VAC	Transformer (Wall Mount)
	220 VAC (2 prong Euro)	Transformer (Wall Mount)
	240 VAC (3 prong UK style)	Transformer (Wall Mount)
Output Voltage Options ⁽¹⁾	Customer Supplied DC (9-32 VDC)	2-pin Military DC Connector
	DC VOLTAGE OUT	MAX CURRENT OUT FOR CORRESPONDING Vout
	3.3V	110mA
	5V	120mA
	9V	140mA
	12V	180mA
	15V	220mA
Custom	TDB	
Standard DC Configuration without External Power Option		
	J1/Output 1 Pass DC, J2-J4/Output 2-4 Block DC, Input Port Pass DC	
	200 ohm loads standard for all DC Blocked Outputs	
Standard DC Configuration with any External Power Option (AC/DC or Military DC)		
	All DC Blocked Outputs feature 200 Ω Load in Standard Configuration	
	User Selected Output DC Voltage	
RF Connector Options		
Connector Options	CONNECTOR STYLE	CHARGE
	Type N-female	NC
	Type SMA-female	NC
	Type TNC-female	NC
	Type BNC-female	NC

(1) With Networked Option, any RF port (input or output) can be selected Pass DC or Block DC.

(Contact GPS Networking Technical Support at 719-595-9880 or salestech@gpsnetworking.com for any questions regarding non-standard configurations and corresponding part numbers)

Part Number Configuration

Network Option (External Power Supply)
Requires 'N', Output Voltage and Power Type

MIL N LDCB S1X4 - N / 5 / 110

The diagram shows the part number **MIL N LDCB S1X4 - N / 5 / 110** with lines connecting each segment to its description on the left. The segments are: MIL, N, LDCB, S1X4, -, N, /, 5, /, 110.

Mil Spec Splitter Option:
MIL = Includes Hermetically Sealed, EMI Shielding, Weatherproofing and Qual

Test Summary Certification
Network Option:
N = External Power; **Blank** = No External Power

Loaded DC Blocked Outputs:
LDCB = 200 Loaded DC Blocked Outputs

Splitter Type:
S1X4 = GPS Splitter 4 Outputs

Connector Options (Type Female Standard):
N = N type; **S** = SMA; **T** = TNC; **B** = BNC

DC Output Voltage (**only with Network Option**):
3.3, 5, 9, 12, 15, XX (Custom: "XX")

Source Voltage (**only with Network Option**):
110=110VAC, **220**=220VAC (2 prong Euro), **240**=240VAC (3 prong UK),
MC – Military DC Connector (User supplies DC voltage range 9-32VDC)

(Military DC Mating Connector is included standard with the MC power option)

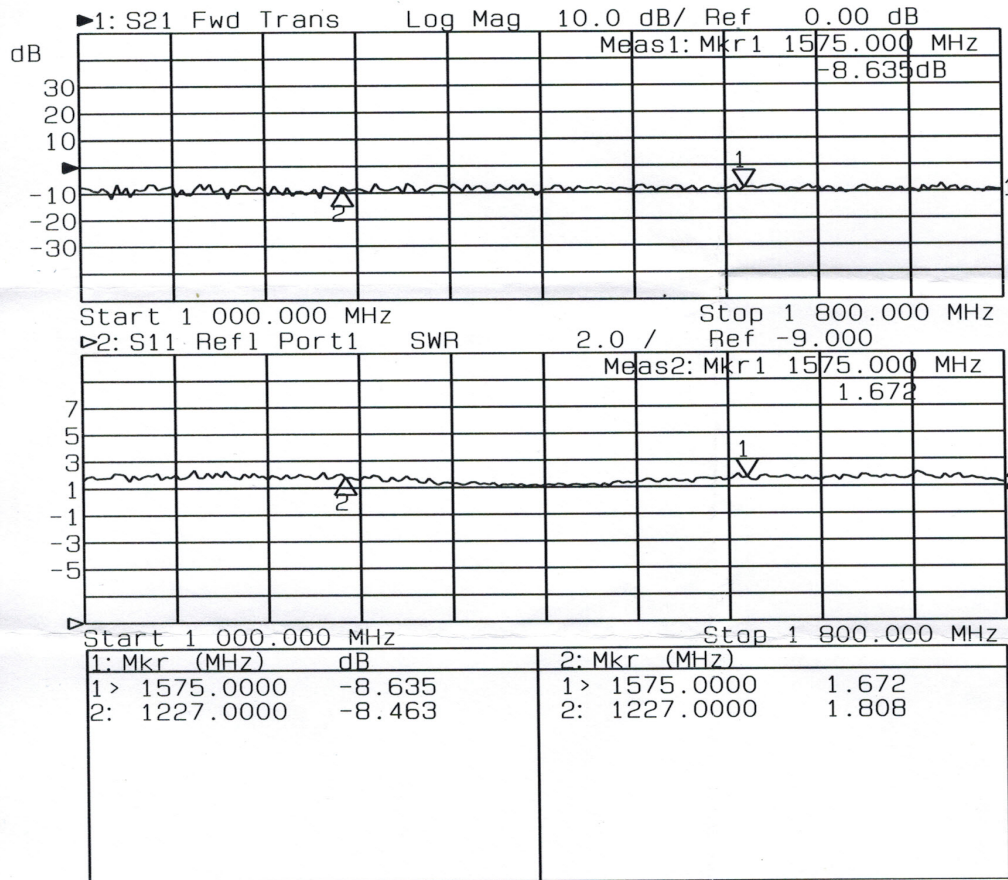
When no external power supply option (AC or DC) is selected, Output 1/J1 is Pass DC standard.
Whenever an external power supply option is selected, all outputs are DC blocked standard.

(Contact GPS Networking Technical Support at 719-595-9880 or salestech@gpsnetworking.com for any questions regarding non-standard configurations and corresponding part numbers)

Performance

MIL-LDCBS1X4 (Typical, Type N-female connectors)

Input SWR (Ant. port) and Frequency Response: Ant. To J1, J2, (Typical, Type N connectors)



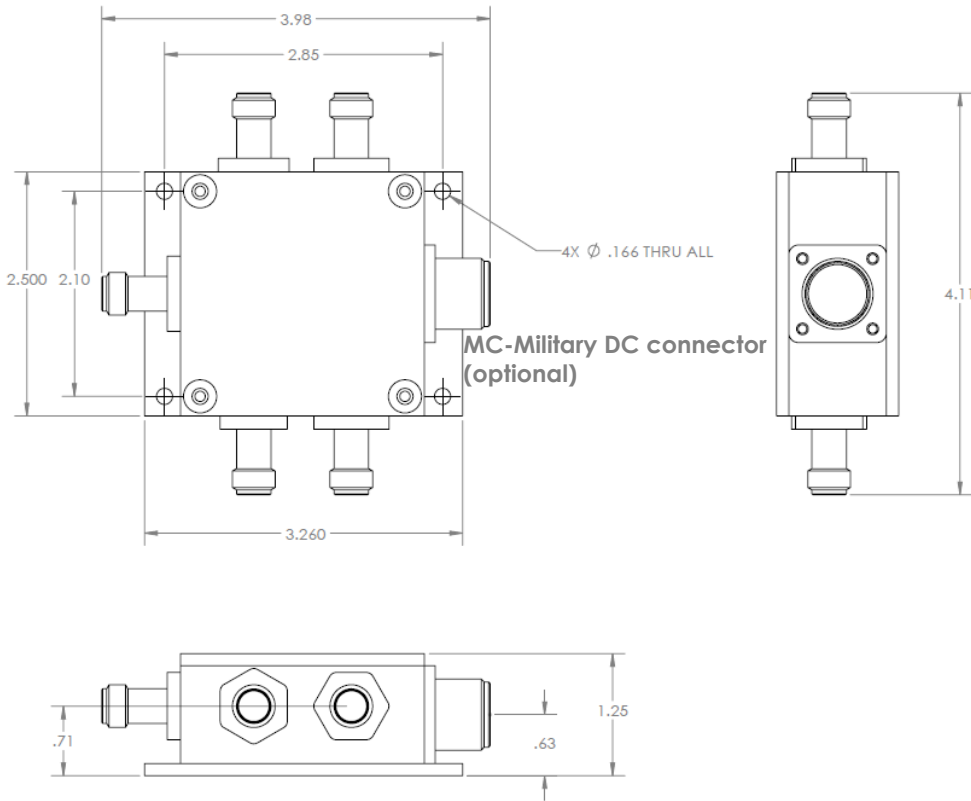
Contact NavtechGPS for product details. www.NavtechGPS.com
 +1-703-256-8900 • 800-628-0885 • info@navtechgps.com

Mechanical

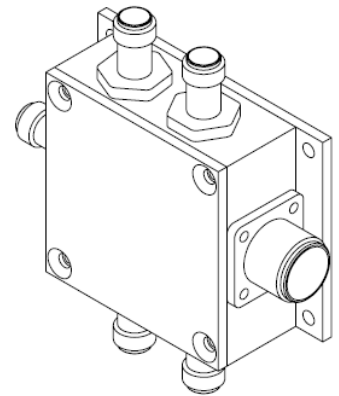
Dimensions: Height: 1.3"
 Length (not including connectors) Body: 2.5"
 Base Plate: 3.25"
 Width (not including connectors): 2.5"
Weight: 12 oz. (344 grams)

Operating Temp. Range: -40° to + 75°C

Finish Housing and Base Plate: ELECTROLESS NICKEL PLATED
 MIL-C-26074C CLASS 1, .0001-.0003 MAX
 Finish Lid: ANODIZE, TYPE II, CLASS 2, BLACK, per MIL-A-8625



REVISIONS				
ZONE	REV.	DESCRIPTION	REV. BY	DATE
-	A	INITIAL RELEASE	-	---



GPS NETWORKING		Assy, 1x4 Military		Do Not Scale Dwg Remove All Burs And Sharp Edges to .000 Root Max.	
DESIGNED BY	BPC	DATE	07/02/15	DESIGNED BY	
CHECKED BY		DATE		CHECKED BY	
SCALE		QUANTITY / REF KEY		SCALE	
DATE ENGINEERED		ISSUED		DATE	
DWG NUMBER		SIZE	B	REV	
		SHEET	1	OF	1
		UNIT DIMENSIONS	Unless Noted		