



LDCBS1X2

Passive 1X2 GPS Splitter

Technical Product Data



Features

- **Amplitude Balance**
 $|J1 - J2| < 1.0\text{dB}$
- **Extremely Flat Group Delay**
Less than 1ns variation
- **Low Insertion Loss**
- **Passes all GNSS Frequencies (Entire L-band)**
- **DC Blocked Outputs Feature 200Ω Loads**
Prevent antenna alarm faults from connected devices
- **Phase Matched Outputs**
 $\text{Phase } (J1 - J2) < 1.0^\circ$
- **Special Configurations Available By Request**

Description

The LDCBS1X2 GPS Splitter (GNSS Splitter) is a one input, two output device based on the Wilkinson splitter design. The frequency response covers the entire L-band (all GNSS Frequencies) with excellent gain flatness. In the standard configuration, (J1) passes DC from the connected GPS device through the splitter to the input (antenna port). The other RF output (J2) is DC blocked and 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.



Contact NavtechGPS for product details. www.NavtechGPS.com
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Electrical Specifications, T_A = 25⁰C

| Parameter | Conditions | Min | Typ | Max | Units |
|------------------------|--|-----|-----|-------|-------|
| Freq. Range | Ant – Any Output, Unused Outputs - 50Ω | 1.1 | | 1.7 | GHz |
| Input/Output Impedance | Ant, J1, J2 | | 50 | | Ω |
| Input SWR | All ports - 50Ω | | | 2.0:1 | - |
| Output SWR | All ports - 50Ω | | | 1.5:1 | - |
| Insertion Loss | Ant – Any Output, Unused Outputs - 50Ω | -3 | -4 | -5 | dB |
| Gain Flatness | L1 - L2 ; Ant – Any Output, Unused Outputs - 50Ω | | | 1.0 | dB |
| Amplitude Balance | J1 – J2 ; Ant – Any Output, Unused Outputs - 50Ω | | | 1.0 | dB |
| Phase Balance | Phase (J1 – J2) ; Ant – Any Output, Unused Outputs - 50Ω | | | 1.0 | deg |
| Isolation | Opposite Ports: Ant - 50Ω | 20 | | | dB |
| Group delay Flatness | τ _{d,max} - τ _{d,min} : Ant – J1 – J2 - 50Ω ; Ant – J2, J1 - 50Ω | | | 1 | ns |

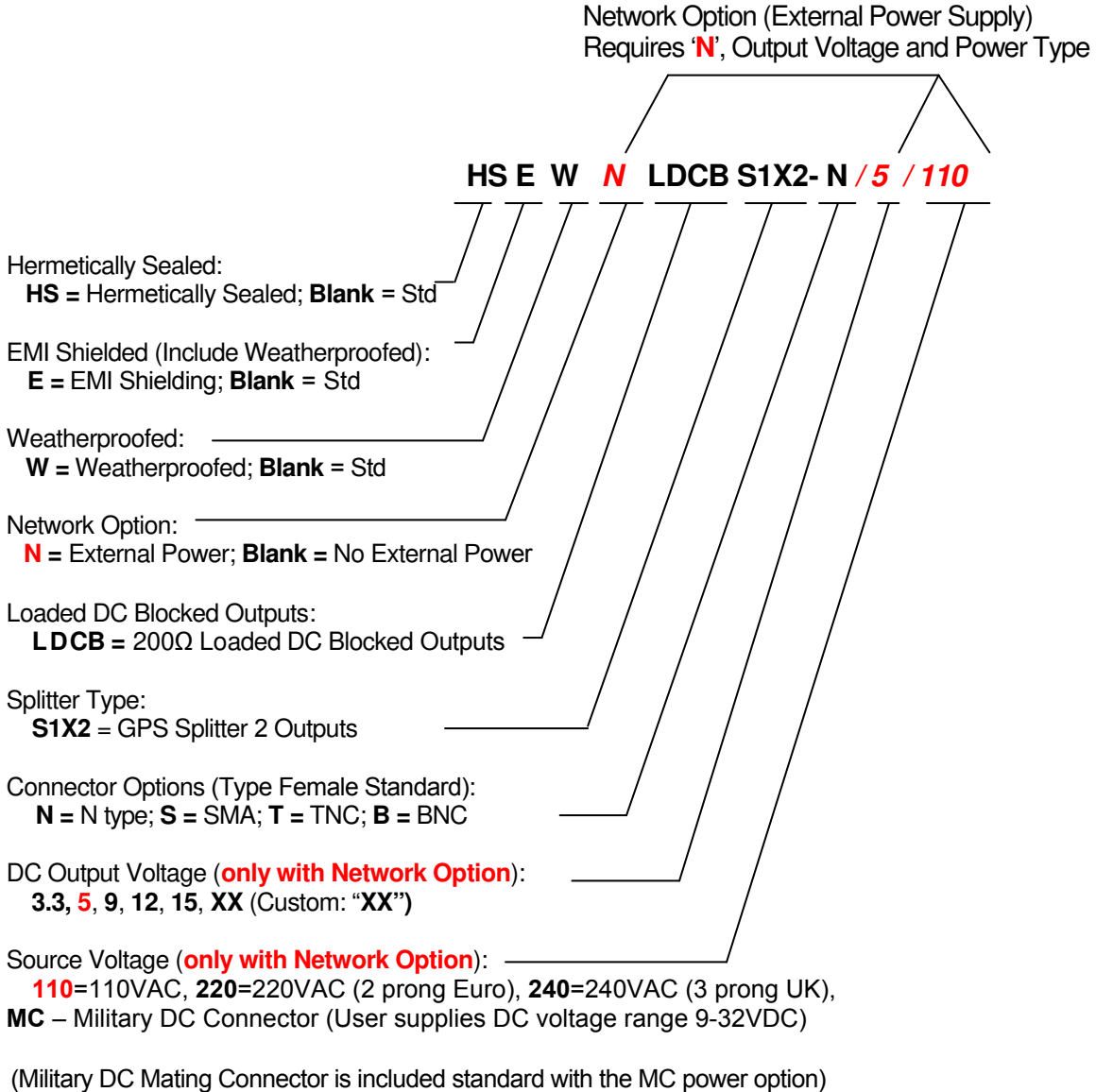
External Power Options (Networked Option)

| 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) |
| | Customer Supplied DC (9-32 VDC) | 2-pin Military DC Connector |
| Output Voltage Options ⁽¹⁾ | DC VOLTAGE OUT | MAX CURRENT OUT FOR CORRESPONDING Vout |
| | 3.3V | 110mA |
| | 5V | 125mA |
| | 9V | 140mA |
| | 12V | 180mA |
| | 15V | 220mA |
| | Custom | TDB |
| Standard DC Configuration without External Power Option | | |
| | J1/Output 1 Pass DC, J2/Output 2, Block DC, Input Port Pass DC | |
| Standard DC Configuration with any External Power Option (AC/DC or Military DC) | | |
| | All DC Blocked Outputs feature 200Ω 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



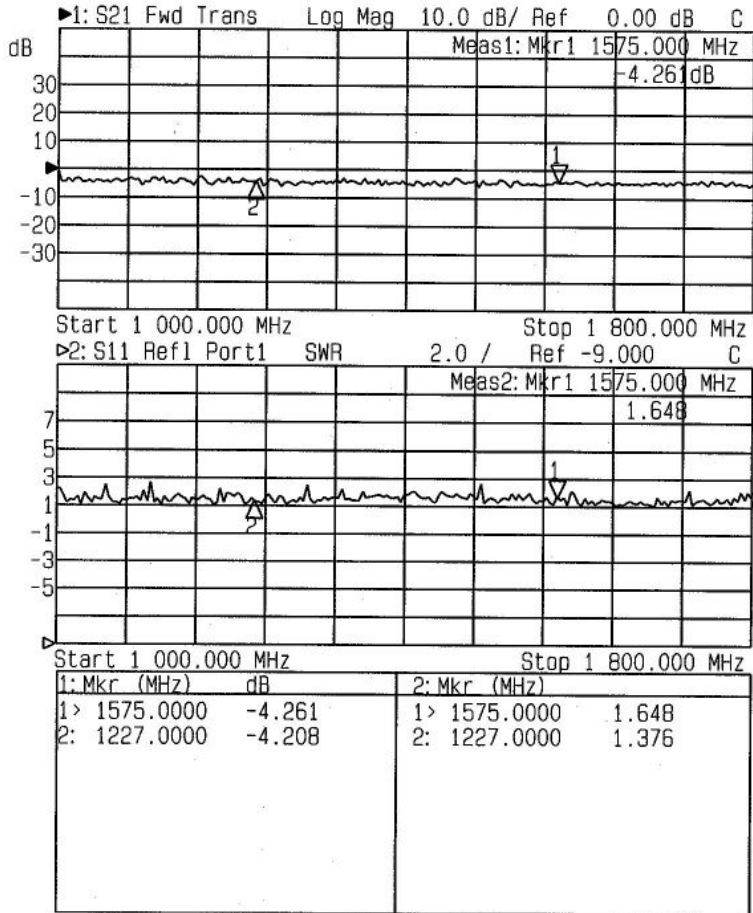
When no external power supply option (AC or DC) is selected, Output 1/J1 is Pass DC standard. Whenever an external power supply option is selected, all outputs are DC blocked standard.

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Performance

Typical Frequency Response: Ant. To J1, J2, (Type N connectors)

Input SWR: Ant. J1, J2 - 50Ω (Type N connectors):



Mechanical

Dimensions: Height: 1.3"
Length (not including connectors) Body: 2.5"
Base Plate: 3.25"
Width (not including connectors): 2.5"

Weight: 11 oz. (316 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

