

DCB



DCB Technical Product Data



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info@NavtechGPS.com
www.NavtechGPS.com

Features

- Blocks DC voltage
- Small Form Factor
 - 2.5" x 0.75" x 0.875" (not including connectors)
- Extremely Flat Group Delay
 - Less than 1ns variation
- Wide Accepted Frequency Range
 - Accepts signals from the entire L-Band, covering all major GNSS constellations.
- Excellent Flatness
 - Gain | L1 – L2 | < 1.0 dB
- Low Insertion Loss < 1.0dB typical



Description

The DCB GPS DC Block (GNSS DC Block) is a one input, one output device that is designed to block unwanted DC voltage anywhere in a system network. The DCB features a miniaturized housing for use when small form factors are required. The frequency response covers the GPS L1, L2, L5, Galileo and GLONASS frequencies (entire L-band) with excellent flatness. In the normal configuration, the RF input and output will block DC from both the input and output.

Use Cases

- Block unwanted DC voltage anywhere in a system network.
- Protecting expensive receivers by blocking the DC path from the antenna.



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Electrical Specifications, TA=25°C

General Specification

Parameter	Notes	Min	Typ	Max	Unit
Frequency Range	Covers all major GNSS constellations.	1.1		1.7	GHz
Characteristic Impedance	Input and output ports matched to 50Ω.		50		Ω

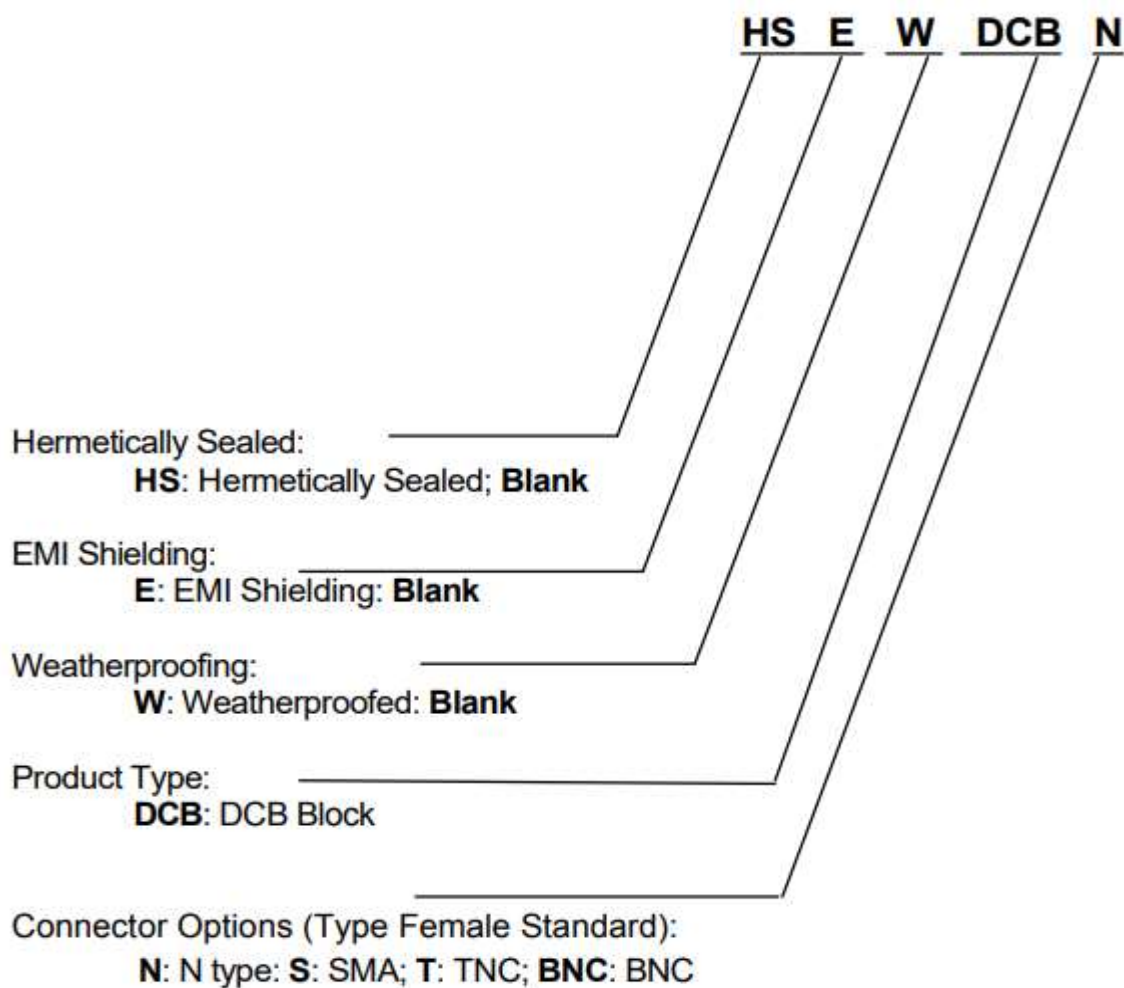
GPS L1 & L2 RF Specification

Parameter	Notes	Min	Typ	Max	Unit
Gain	The relative increase in signal power provided by the amplifier.	-2	-1	0	dB
Input SWR	Input Standing Wave Ratio: S11 at L1 and L2		1.5:1	2.0:1	-
Output SWR	Output Standing Wave Ratio: S22 at L1 and L2		1.5:1	2.0:1	-
Band Gain Flatness	The difference in loss or gain between the L1 and L2 frequencies.		0.25	1	dB

Standard DC Configuration		
All Ports DC Block		
Connector Options	Connector Style	Charge
	Type N-female	No Charge
	Type SMA-female	No Charge
	Type TNC-female	No Charge
	Type BNC-female	No Charge
	Other	Contact GPS Networking

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Part Number Configuration



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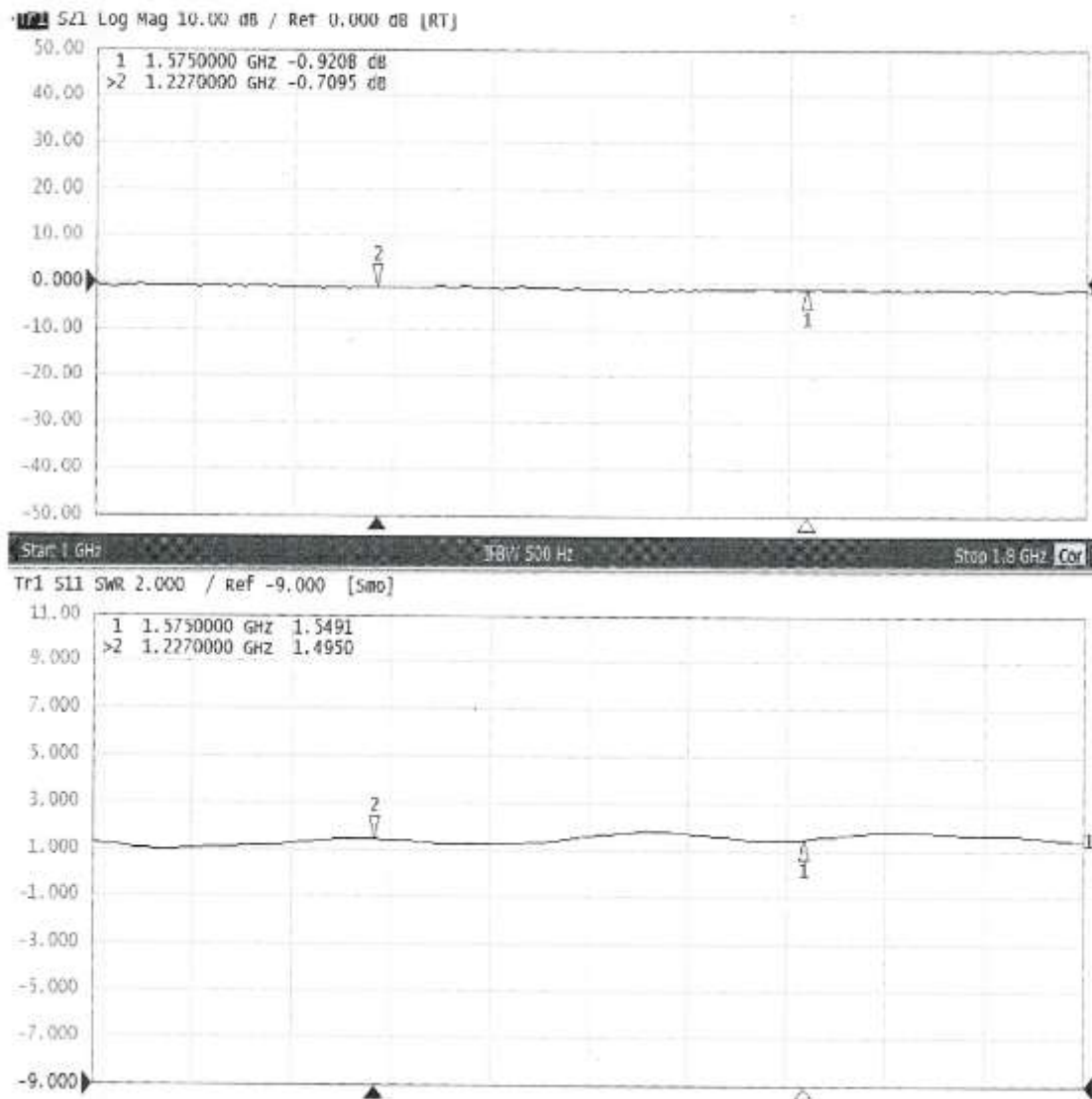
Performance



LA20RPDC (Standard Gain)

Each LA20RPDC ships with a test sheet that verifies critical performance characteristics, such as gain, input VSWR, and amplitude balance; a typical VNA test sheet is shown below. Noise figure test data is available upon request.

Test Data



Mechanical

