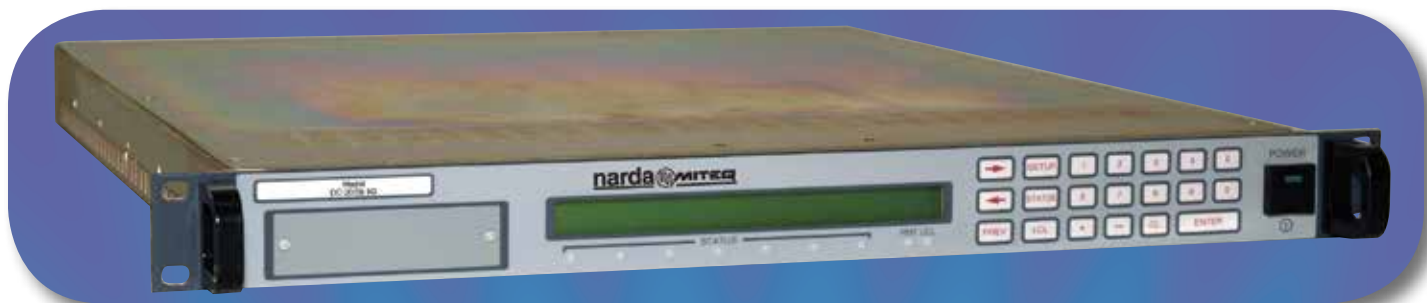


20 GHz TO 26.5 GHz ULTRA-WIDEBAND BLOCK DOWNCONVERTER



DC SERIES MODEL DC-20/26.5G



FEATURES

- 20 GHz to 26.5 GHz RF input
- Very low phase noise
- Extends input receive bands of DC-8/20G and DC-0.5/20G to 26.5 GHz

The Narda-MITEQ model DC-20/26.5G is a high-performance, single conversion inverting ultra-wideband block downconverter system. The system converts an input signal in a 20 GHz to 26.5 GHz band to an output of 10.3 GHz to 16.8 GHz, and allows an input of 0.5 GHz to 20 GHz to pass through with no conversion. This block downconverter is designed to be used with Narda-MITEQ models DC-8/20G and DC-0.5/20G ultra-broadband 2 Hz resolution tunable downconverters to extend their input receive band to 26.5 GHz.

SPECIFICATIONS

Input characteristics		
Input frequency	20 GHz to 26.5 GHz	
Level	to -35 dBm fully compliant	
Impedance	50 ohms	
Input VSWR	2.0:1 typical, 2.5:1 maximum	
Noise figure	15 dB typical, 18 dB maximum	
Output characteristics		
RF input bands	20 GHz to 26.5 GHz, 0.5 GHz to 20 GHz	
RF output bands	10.3 GHz to 16.8 GHz, Pass-thru	
Power output (1 dB compression)	-15 dBm	
Impedance	50 ohms	
Output VSWR	2.0:1 typical, 2.2:1 maximum	
Transfer characteristics		
Conversion type	Single	
Frequency sense	Inverting	
Gain	0 ±2 dB	
Gain flatness	±1 dB maximum in any 500 MHz slot	
Inband spurious	-55 dBc typical	
Image rejection	55 dB typical	
LO leakage	-70 dBm maximum	
Single side-band phase noise		
Phase noise	Offset from carrier	
	100 Hz	dBc/Hz (typical)
	1 kHz	-62 dBc
	10 kHz	-87 dBc
	100 kHz	-98 dBc
	1 MHz	-103 dBc
		-123 dBc



20 GHz TO 26.5 GHz ULTRA-WIDEBAND BLOCK DOWNCONVERTER

GENERAL SPECIFICATIONS

PRIMARY POWER REQUIREMENTS

Voltage.....90 VAC to 250 VAC
Frequency47 Hz to 63 Hz

PHYSICAL

Weight.....19 lb. [8.62 kg] nominal
Dimensions.....19" [482.60 mm] x 1.75" [44.45 mm] x 22" [558.80 mm]

Rear panel connectors

RF IN3.5 mm female
RF OUTSMA female
Remote interfaceDEM-9S for RS-422/RS-485/RS-232
Summary alarmDE-9P
External reference inputBNC female
Reference output.....BNC female
Opto interface to DC-8/20G and
DC-0.5/20G10-pin header with ejector

ENVIRONMENTAL

Operating

Temperature.....0°C to 50°C
Full compliance temperature range10°C to 40°C
Relative humidity.....Up to 95% at 30°C, noncondensing
Atmospheric pressureUp to 10,000 feet

Nonoperating

Temperature.....-50°C to +70°C
Relative humidity.....Up to 95% at 40°C, noncondensing
Atmospheric pressureUp to 40,000 feet
Shock and vibrationRough handling

TYPICAL REAR-PANEL VIEW



ORDERING INFORMATION

Specify by part number: DC-20/26.5G

The material presented in this datasheet was current at the time of publication. Narda-MITEQ's continuing product improvement program makes it necessary to reserve the right to change our mechanical and electrical specifications without notice. If either of these parameters is critical, please contact the factory to verify that the information is current.

This material consists of Narda-MITEQ general capabilities information and does not contain controlled technical data as defined within the International Traffic in Arms (ITAR) Part 120.10 or Export Administration Regulations (EAR) Part 734.7-11.
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