



MULTIBAND TO L-BAND BLOCK DOWNCONVERTERS



FEATURES

- Automatic 5/10 MHz internal/external reference selection
- Three monitor control ports:
 1. Standard RS485/RS422 remote interface which can be substituted with RS232
 2. RS485/RS422 control interface (J7) which can be configured to control an external HPA or as an alternate remote interface
 3. 10/100Base-T Ethernet interface
- RF/IF signal monitor port
- 30 dB gain control
- Low phase noise
- 64 memory locations
- High frequency stability
- Summary alarm
- CE mark

This series of band-switching block downconverters translates to L-band. Local control is by a front panel keyboard and remote control is available through a remote interface. Up to 64 discrete band and attenuation settings may be programmed into a nonvolatile memory.

OPTIONS

- Higher stability reference
- Remote RS232

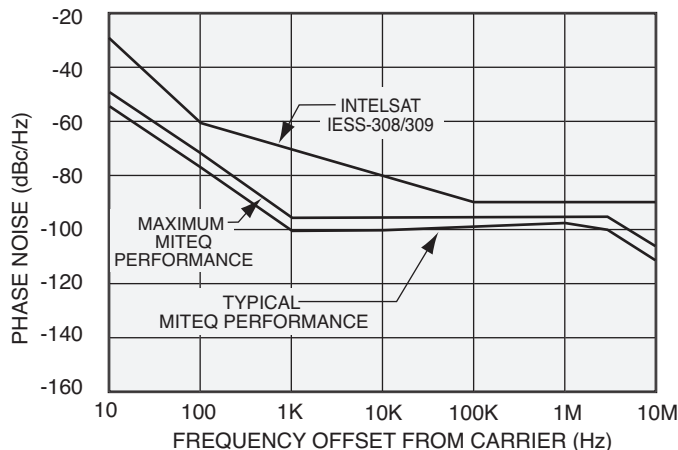
SPECIFICATIONS

DOWNCONVERTERS

Model Number	Input Frequency (GHz)	Output Frequency (GHz)	LO Frequency (GHz)
DNB-3B	10.7-11.45	0.95-1.7	9.75
	11.45-12.2	0.95-1.7	10.5
	12.2-12.75	0.95-1.5	11.25
DNB-3B-1	10.95-11.7	0.95-1.7	10
	11.7-12.2	0.95-1.45	10.75
	12.2-12.75	0.95-1.5	11.25
DNB-2B	10.7-11.75	0.95-2	9.75
	11.7-12.75	0.95-2	10.75
DNB-4B	3.4-4.2	0.95-1.75	8.8/11.25
	10.7-11.45	0.95-1.7	9.75
	11.45-12.2	0.95-1.7	10.5
	12.2-12.755	0.95-1.505	11.25
DNB-4B-1	3.4-4.2	0.95-1.75	8.8/11.25
	10.95-11.7	0.95-1.7	10
	11.7-12.2	0.95-1.45	10.75
	12.2-12.75	0.95-1.5	11.25
DNB-4B-IN	3.4-4.2	0.95-1.75	5.15*
	10.7-11.45	0.95-1.7	9.75
	11.45-12.2	0.95-1.7	10.5
	12.2-12.755	0.95-1.505	11.25
DNB-4B-1-IN	3.4-4.2	0.95-1.75	5.15*
	10.95-11.7	0.95-1.7	10
	11.7-12.5	0.95-1.75	10.75
	11.955-12.755	0.95-1.75	11.005

* Model includes frequency inversion.

TYPICAL PHASE NOISE CHARACTERISTICS (1.0 Hz BANDWIDTH)



SPECIFICATIONS (CONT.)

Frequency sense	No inversion, except DNB-X-IN C-band inverting
Input characteristics	
Impedance	50 ohms
Return loss	20 dB minimum
LO leakage	-80 dBm maximum
Output characteristics	
Impedance	50 ohms
Return loss	18 dB minimum
Power output (1 dB compression)	+10 dBm minimum
Transfer characteristics	
Gain (at minimum attenuation).....	30 dB minimum
Image rejection.....	80 dB minimum
Level stability.....	±0.25 dB/day at constant temperature
Noise figure (at minimum attenuation)....	15 dB maximum
Amplitude response	±0.5 dB/±40 MHz, ±2 dB over output band
Group delay.....	1 ns peak-to-peak maximum
Intermodulation distortion (third order)....	With two 0 dBm output signals, 40 dBc minimum
Spurious outputs	
Signal related	65 dBc minimum
Signal independent	-70 dBm maximum
Gain adjustment	30 dB in 0.2 dB steps
Frequency stability	±2 x 10 ⁻⁸ , 0 to 50°C (higher stability options available), ±5 x 10 ⁻⁹ /day typical (fixed temperature after 24 hour on time)
Automatic reference configuration.....	External 5 or 10 MHz at +4 ±3 dBm. If external reference is below +1 dBm nominal, the converter will automatically lock to the internal reference.
Remote interface	RS485/RS422 user selectable and 10/100Base-T Ethernet interface providing: Web-browser-based configuration SNMP 1.0 configuration Alarm reporting via SNMP Trap Telnet access Password protection

OPTIONS

- 10.** Higher frequency stability reference.
- B.** ±5 x 10⁻⁹, 0 to 50°C,
1 x 10⁻⁹/day typical (fixed temperature after 24 hour on time).
 - C.** ±2 x 10⁻⁹, 0 to 50°C,
1 x 10⁻⁹/day typical (fixed temperature after 24 hour on time).
- 17.** Remote control.
- C.** RS232.

Notes: Missing option numbers are not applicable to this product.

For literature describing local control (front panel) and remote control (bus protocols), refer to MITEQ's Technical Note 25T055.

ACCESSORIES

- Dedicated remote control panel.
MITEQ Model Number RCTR-T055.
Provides remote control and status over a dedicated RS485 bus.

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GENERAL SPECIFICATIONS

PRIMARY POWER REQUIREMENTS

Voltage..... 90–250 VAC
Frequency..... 47–63 Hz
Power consumption..... 30 W typical

SUMMARY ALARM

Contact closure/open for DC voltage and/or LO alarm

PHYSICAL

Weight 16 pounds nominal
Overall dimensions 19" x 1.75" panel x 22" maximum (chassis depth 20")
Connectors
RF SMA female
RF monitor SMA female
IF N female
IF monitor SMA female
External reference BNC female
LO monitor SMA female
Remote interface DEM-9S for RS485, RS422 and RS232,
RJ-45 female for Ethernet
Summary alarm DE-9P
Primary power input IEC-320

ENVIRONMENTAL

Operating
Ambient temperature..... 0 to 50°C
Relative humidity Up to 95% at 30°C
Atmospheric pressure Up to 10,000 feet
Nonoperating
Ambient temperature..... -50 to +70°C
Relative humidity Up to 95% at 40°C
Atmospheric pressure Up to 40,000 feet
Shock and vibration Normal handling by commercial carriers



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