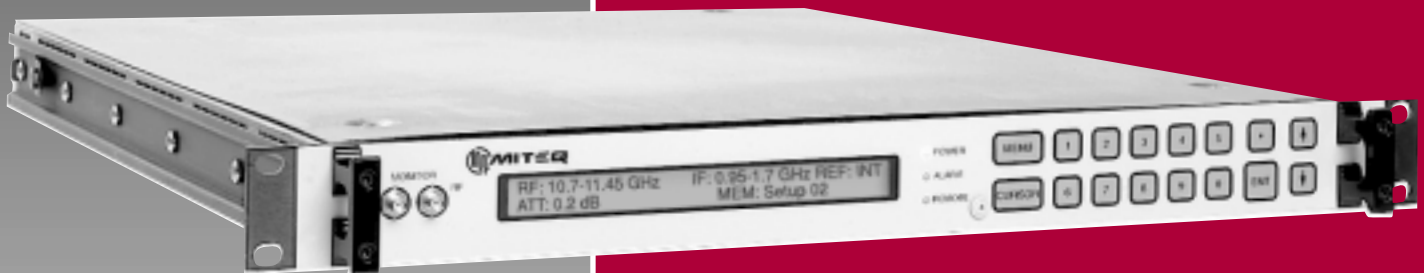




MULTIBAND TO L-BAND BLOCK DOWNCONVERTERS



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.

FEATURES

- Automatic 5/10 MHz internal/external reference selection
- RS485/RS422 remote control
- RF/IF signal monitor port
- 30 dB gain control
- Low phase noise
- 64 memory locations
- High frequency stability
- Summary alarm
- CE mark

OPTIONS

- Higher stability reference
- Remote RS232 or 10/100Base-T Ethernet

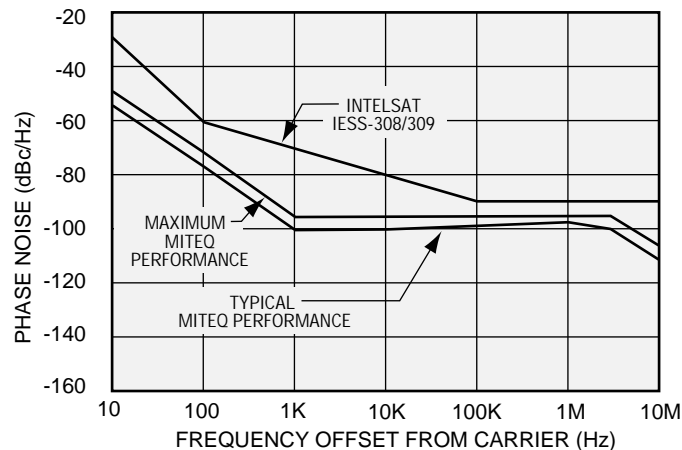
SPECIFICATIONS

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

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.
 - H.** 10/100Base-T Ethernet interface providing:
 - Web-browser-based configuration
 - SNMP 1.0 configuration
 - Alarm reporting via SNMP Trap
 - Telnet access
 - Password protection

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.

MULTIBAND TO L-BAND BLOCK DOWNCONVERTERS

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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