

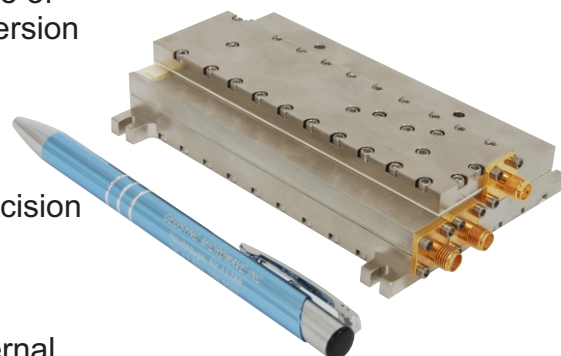


HIGH PERFORMANCE MINI-MODULE BLOCK DOWNCONVERTER RECEIVE BAND TO L-BAND

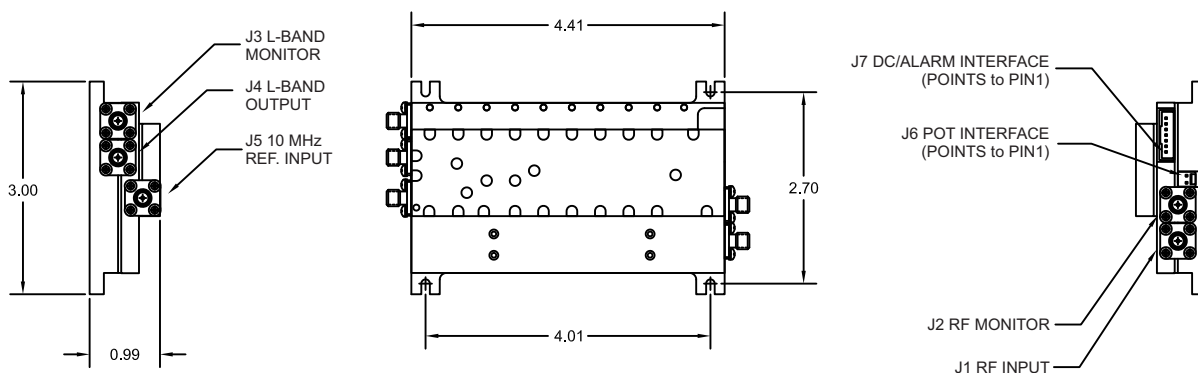
Featuring high performance in a small, 4.4" x 2.7" package size this line of Block Downconverters is designed to be mounted inside of multifunction assemblies. The converters provide down conversion from the Satellite transponder frequency band to L-band.

Features

- DC connector
- Input attenuator - 15 dB continuous analog control, precision calibrated for stepped resistance thumbwheel control.
- Output attenuator - 30 dB in 0.2 dB steps
- Input and output signal monitors
- External 10 MHz reference with auto switchover to internal 2.5 ppm reference oscillator
- Input filtering (70 dB image rejection)
- Summary alarm for phase lock fault



Model Number	Frequency Input (GHz)	Frequency Output (MHz)	LO (MHz)
DBMF-2325-1275-INV	2.0-2.65	950-1600	3600
DBMF-2400-1200-INV	2.15-2.65	950-1450	3600
DBMF-3800-1350-INV	3.4-4.2	950-1750	5150
DBMF-4300-1450-INV	3.8-4.8	950-1950	5750
DBMF-7500-1200	7.25-7.75	950-1450	6300
DBMF-11200-1450	10.7-11.7	950-1950	9750
DBMF-11450-1700	10.7-12.2	950-2450	9750
DBMF-11950-1450	11.45-12.45	950-1950	10500
DBMF-12250-1475	11.7-12.75	950-2000	10750
DBMF-17700-1450	17.2-18.2	950-1950	16250
DBMF-18700-1450	18.2-19.2	950-1950	17250
DBMF-19700-1450	19.2-20.2	950-1950	18250
DBMF-20700-1450	20.2-21.2	950-1950	19250
DBMF-21700-1450	21.2-22.2	950-1950	20250



BLOCK DOWNCONVERTER SPECIFICATIONS

Conversion Gain	35 dB minimum
Gain Flatness	± 1 dB over the frequency range
Noise Figure	12 dB max. ≤ 21 GHz, 14 dB max. > 21 GHz
Gain Stability	± 1 dB over the operational temperature range
Output 1 dB Compression	10 dBm minimum
Output Third Order Intercept	23 dBm typical
Image Rejection	70 dB minimum
Non-signal Related Spurious	-75 dBm
Signal Related Spurious	-65 dBc up to -15 dBm output
DBMF-2325-1275-INV	50 dBc with input 2.0-2.05 GHz
Input/Output VSWR, 50 Ohm	1.8:1
Power Requirement	11V-16V, 6 Watts Nominal
Reference Configuration	External 10 MHz at 4 $\pm$ 3 dBm, If external reference is below +1 dBm nominal, module switches to internal reference.
Internal Frequency Stability (excluding offset)	± 25 kHz/-40 to 60°C
Typical Single Side Band Phase Noise	-75 dBc at 1 kHz offset
	-85 dBc at 10 kHz offset
	-95 dBc at 100 kHz offset
Summary Alarm Output	Form-C contact closure
Input and Output Signal Monitors	16 dBc nominal
Input Attenuator	15 dB min. (25 dB typ.) controlled by external thumbwheel
Output Attenuator	30 dB in 0.2 dB steps
Remote Control	Two Wire RS485

MECHANICAL REQUIREMENTS

RF Connectors	Type SMA female
Summary Alarm Connector	JST S7B-PH-SM4-TB-RS
Analog Input Attenuator Control Connector	MOLEX 22-12-2024
Weight	11 ounces (312 grams) nominal

ENVIRONMENTAL REQUIREMENTS

Operational Ambient Temperature	-40 to 60°C
Elevation	Operation to 15,000 feet
Shock and Vibration	Normal commercial shipping

OPTIONS

- 38-1. Ethernet Remote 10/100Base-T Ethernet interface providing -
- HTTP-based web server
 - Telnet access
 - Password protection
 - Connector: RJ45 (height increases to accommodate)
 - Deletes J6 Analog Atten. Interface
 - Input attenuator: 15 dB in 0.2 dB steps



Shown with option 38-1

