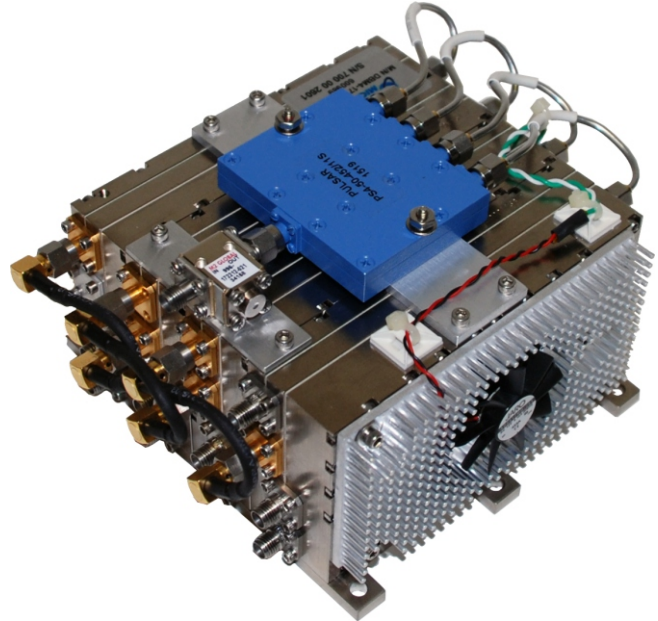


This series of Block Downconverters modules provides one wide band RF composite input covering multiple satellite transponder frequencies and provides up to 5 separate & independent L-band IF outputs.

A strong set of monitor and control functions provides powerful remote control capability via either RS422/485 or 10/100BaseT Ethernet. A contact closure summary alarm is provided for fault monitoring.



STANDARD FEATURES

- Single wideband RF input with up to 5 independent IF outputs
- RS422, RS485 and 10/100 Base-T Ethernet
- RF and L-band monitor ports
- Automatic 5/10 MHz internal/external reference selection
- Electronic adjust of internal reference frequency
- Low intermodulation distortion
- 45 dB of independent RF and L-band level control for each channel
- CE Mark and RoHS

OPTIONS

- Input Low Noise Amplifier

BLOCK DOWNCONVERTERS

Input (GHz)	Output (GHz)	LO (GHz)	Model Number
17.2-18.2	0.95-1.95	16.25	DBM4F-172212
18.2-19.2	0.95-1.95	17.25	
19.2-20.2	0.95-1.95	18.25	
20.2-21.2	0.95-1.95	19.25	
17-18.1	0.95-2.05	16.05	DBM5F-170222
18.1-19.15	0.95-2	17.15	
19.15-20.2	0.95-2	18.2	
20.2-21.2	0.95-1.95	19.25	
21.2-22.2	0.95-1.95	20.25	
17.2-18.2	0.95-1.95	16.25	DBM5F-172222
18.2-19.2	0.95-1.95	17.25	
19.2-20.2	0.95-1.95	18.25	
20.2-21.2	0.95-1.95	19.25	
21.2-22.2	0.95-1.95	20.25	

INPUT SPECIFICATIONS

Return Loss (50 Ohms)	17 dB minimum
Signal Monitor	-16 dBc nominal (configuration dependent)

OUTPUT CHARACTERISTICS -

Return Loss (50 ohms)	14 dB minimum
Signal Monitor (one per channel)	-20 dBc nominal
Power Output (1 dB Compression)	+10 dBm minimum

TRANSFER CHARACTERISTICS -

Gain	4 Channel: 28 dB minimum; 5 Channel: 24 dB minimum
L-band Level Control (one per channel)	30 dB in 0.2 dB steps
RF-band Level Control (one per channel)	15 dB in 0.2 dB steps
Level Stability	±1 dB over operational
Amplitude Response	±1 dB maximum over each RF frequency band
Noise Figure at Minimum Attenuation	23 dB maximum at maximum gain, single band
Image Rejection	70 dB minimum
Third Order Intermodulation Distortion With two inband signals each at 0 dBm, measured at the output	50 dBc typical (+25 dBm IP3)
Spurious Outputs (Inband) –	
Signal Related up to -15 dBm output	65 dBc minimum
Signal Independent	-60 dBm maximum
Signal Harmonic Related up to -10 dBm output	50 dBc minimum (including 2nd harmonic)
Maximum Phase Noise (dBc/Hz) –	-75 dBc at 1 KHz offset
	-85 dBc at 10 KHz offset
	-95 dBc at 10 KHz offset
Frequency Stability (excluding offset)	±25 KHz, -40° to +60°C
Frequency Aging	5 x 10 ⁻⁹ /day after 24 hours on time
Automatic Reference Configuration	External 10 MHz at +4 ±3 dBm. If external reference is below +1 dBm nominal, the converter will automatically lock to the internal reference.

REMOTE CONTROLS

Serial Interface	RS485/RS422
Ethernet Interface	10/100Base-T Ethernet <ul style="list-style-type: none"> • HTTP-based web server • Telnet access • Password protection

INDICATORS and ALARMS

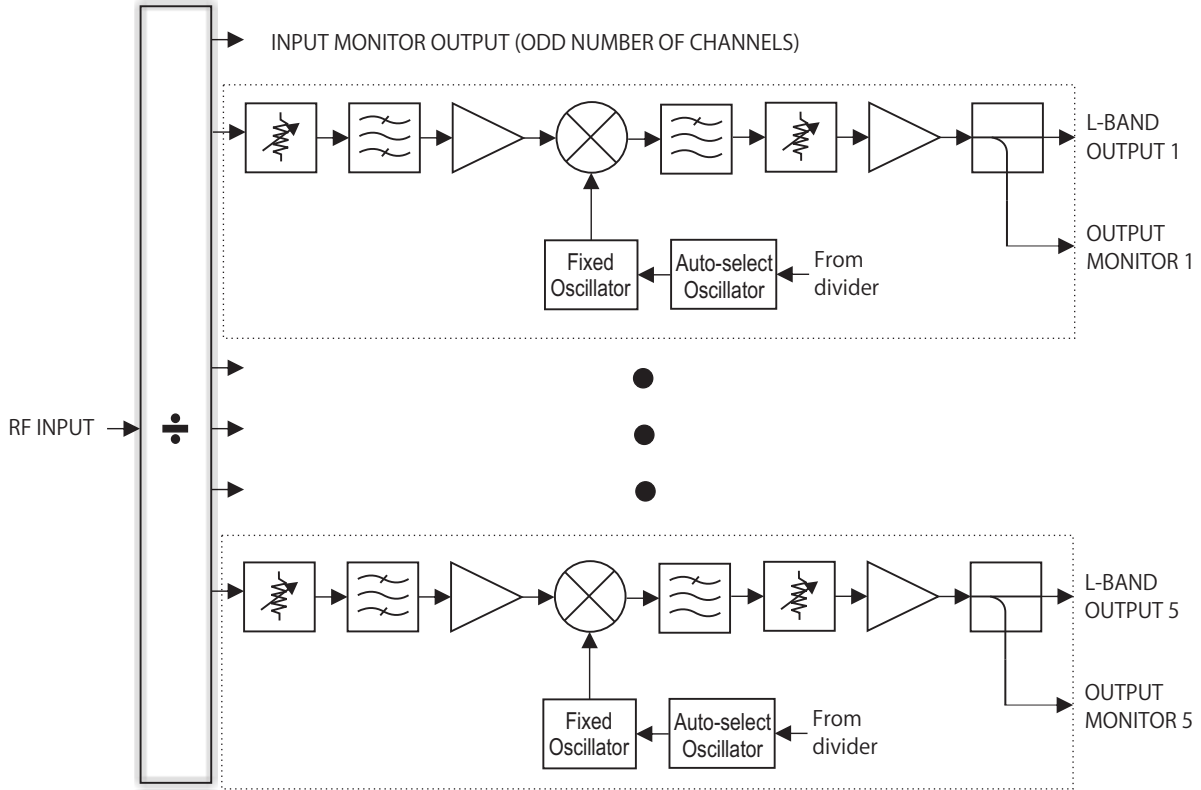
Summary Alarm	Contact closure/open for DC voltage and local oscillator
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Note: All specifications are at maximum gain unless otherwise noted.

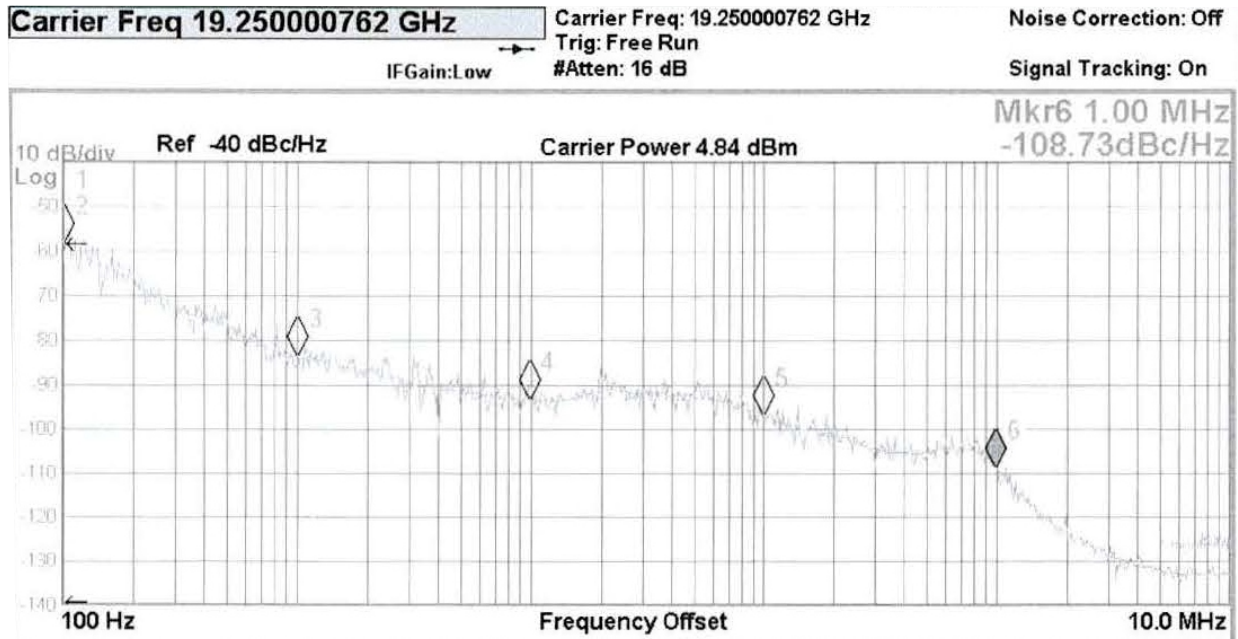
OPTIONS

54-1. Input Low Noise Amplifier Input LNA, 30 dB gain, 1.3 dB noise figure
Non-damage input: 0 dBm

RF BLOCK DIAGRAM



TYPICAL PHASE NOISE



PRIMARY POWER REQUIREMENTS

Voltage..... 11-18 VDC, 35 Watts nominal

PHYSICAL

Weight..... 9 pounds (Many kg) nominal without rack slides

Connectors-

RF SMA/2.92 mm female
External Reference SMA female
DC Alarm/Power..... JST S7B-PH-SM4-TB-RS
Ethernet Remote RJ45

QUAD BAND OUTLINE

