

This line of downconverters is designed to provide downconversion from the Satellite transponder to L-band.

With a design focus on simplicity these converters utilize image reject mixers to provide excellent image rejection. A summary alarm is included as standard.

DC power and 10 MHz reference are located on the IF output connector. Options are available for an internal reference oscillator and DC power on the summary alarm connector

Accessories include Bias-T's and reference diplexers.



Model Number	Frequency Input (GHz)	Frequency Output (MHz)	LO (MHz)
DBM-6140-1240	5.85-6.425	950-1750	4900
DBM-8150-1200	7.9-8.4	950-1450	6950
DBM-14125-1325	13.75-14.5	950-1700	12800
DBM-14250-1200	14.0-14.5	950-1450	13050
DBM-17700-1450	17.3-18.1	950-1750	16350
DBM-17850-1475	17.3-18.4	950-2050	16350
DBM-27675-1025	27.6-27.75	950-1100	26650
DBM-28050-1500	27.5-28.6	950-2050	26550
DBM-28800-1250	28.5-29.1	950-1550	27550
DBM-29600-1350	29.2-30	950-1750	28250

SPECIFICATIONS

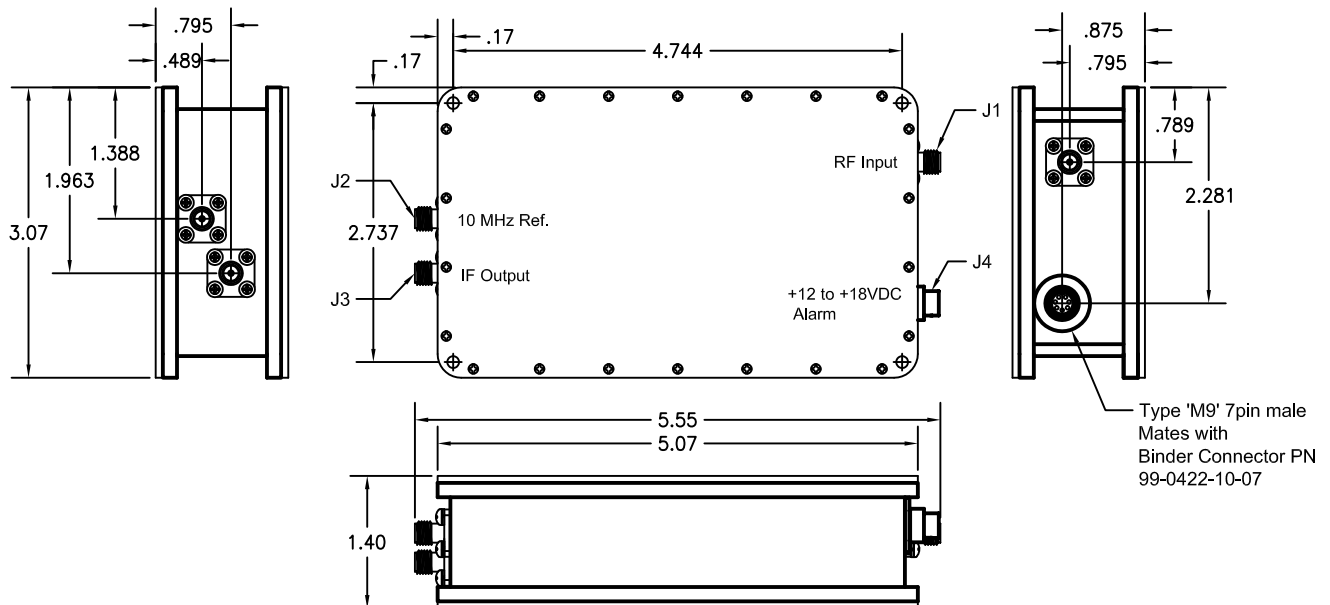
Conversion Gain	35 dB minimum
Gain Flatness	±1 dB over the frequency range
Noise Figure	10 dB maximum
Gain Stability	±1 dB over the operational temperature range
Output 1 dB Compression	+3 dBm minimum
Output Third Order Intercept	+13 dBm
Image Rejection	20 dB minimum
Non-signal Related Spurious	-85 dBm
Signal Related Spurious	-65 dBc up to -15 dBm output
Input/Output VSWR, 50 Ohm	1.8:1
Power Requirement	15-18 VDC on IF output connector, 5.5W nominal
External Reference Input	10 MHz on IF output connector, +4 ±3 dBm
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	Open collector (form C above 17 GHz)

MECHANICAL REQUIREMENTS

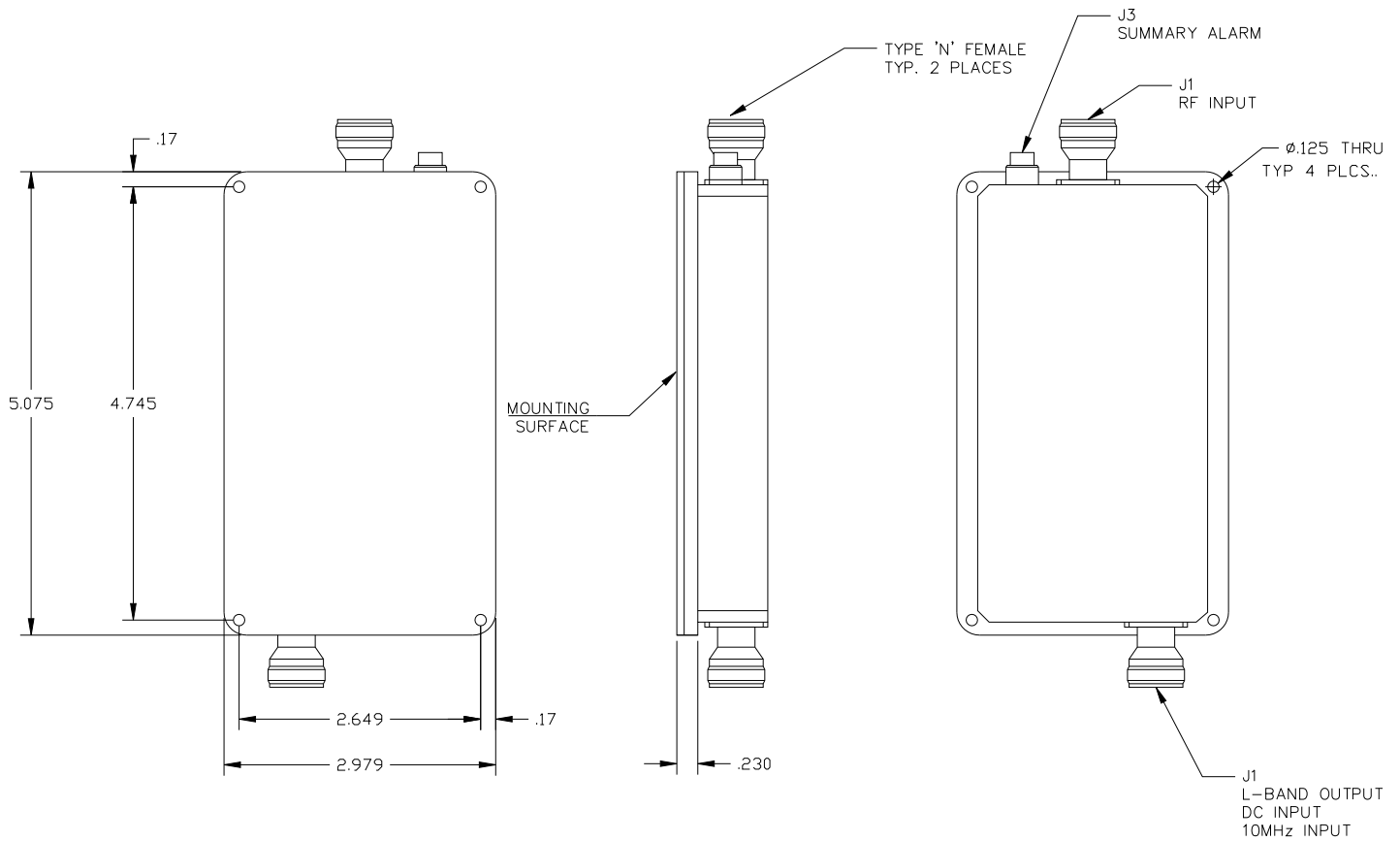
Physical Dimensions	refer to outlines
Input/Output Connectors	Type N female (SMA compatible above 17 GHz)
Summary Alarm Connector	Binder Part Number 09-0415-00-05 (mating connector supplied)
Weight	15 ounces (500 grams) nominal

BLOCK DOWNCONVERTER ENVIRONMENTAL REQUIREMENTS

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



OUTLINE DRAWING
DBS and Ka band Models
and C, X, Ku band Models with options 27-1 or 27-2
(shown with option 27-2A, 27-3)



**OUTLINE DRAWING
C, X and Ku band Models with no options**

OPTIONS

- 25-1. Input Filter Image rejection 70 dBc minimum
- 25-2. Internal reference crystal ± 2.5 ppm over -40 to 60°C
- 25-2A Internal reference crystal with auto-reference
select switch. External 10 MHz input at $+4 \pm 3$ dBm, auto-switchover
to internal crystal at $+1$ dBm nominal. SMA female
connector for external reference. Internal/external
status on summary alarm connector. Internal
reference stability: ± 2.5 ppm over -40 to 60°C
- 25-3 DC Voltage Connector DC bias on J3 Summary Alarm Connector only