

Featuring high performance in a small, package size this X-band Low Noise Block Downconverter is designed to be mounted outdoors. The converters provide down conversion from the Satellite transponder frequency band to L-band.

Features

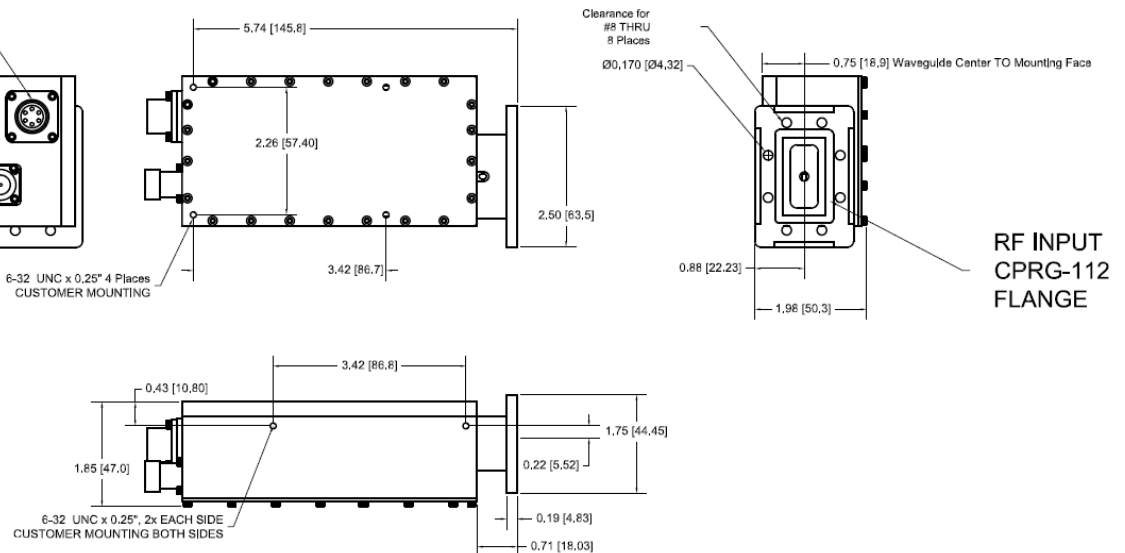
- DC connector
- 10 MHz Reference on output connector
- External 10 MHz reference with auto switchover to internal 2.5 ppm reference oscillator
- Input filtering (45 dB image rejection)
- Summary alarm for fault



Model Number	Frequency Input (GHz)	Frequency Output (GHz)	LO (GHz)
DBL-725775-10-45	7.25-7.75	0.95-1.45	6.3

RF OUTPUT
CONNECTOR
N FEMALE
(SMA FEMALE
OPTIONAL)
10 MHz @ 4±3 dBm
12-28 VDC INPUT

J3 DC POWER CONNECTOR:
MS3112E10-6P
MATING CONNECTOR:
MS3116E10-6S
(PROVIDED)
(or Equivalent)



BLOCK DOWNCONVERTER SPECIFICATIONS

Conversion gain	63 ±3 dB at 23°C
Gain flatness	±1 dB over the frequency range
	±0.3 dB over any 25 MHz
Noise temperature	45K typical, 50K maximum
Gain stability	±1 dB over operational temperature range
Output 1 dB compression	15 dBm minimum, 20 dBm typical
Output Third Order Intercept	25 dBm minimum, 30 dBm typical
Image rejection	45 dBc minimum
Spurious, signal related	-60 dBc maximum, in band
Spurious, signal independent	-60 dBm maximum, in band
Input return loss	19 dBm minimum
Output return loss	14 dB minimum
Group delay	1 nSec p-p over any 25 MHz
Gain stability	±0.5 dB maximum/week at constant temperature
	±2 dB typical/-40 to 70°C
Reference configuration	10 MHz at 0 ±5 dBm, If external reference is below -5 dBm nominal, module switches to internal reference.
Internal frequency stability	±10KHz/-40 to 70°C (excluding offset)
DC power	388 mA typical at 15VDC, 10 to 30 VDC

PHASE NOISE -

With maximum reference phase noise 10 Hz: -105 dBc/Hz 100 Hz: -145 dBc/Hz 1KHz: -160 dBc/Hz	Offset (Hz)						
	10	100	1K	10K	100K	1M	10M
	-28	-58	-70	-80	-90	-100	-115

MECHANICAL REQUIREMENTS

RF Input Connector	CPRG-112
RF Output Connector	N female
Power/Summary Alarm Connector	MS3112E10-6P type (mate supplied)
Weight	1.3 lbs nominal

ENVIRONMENTAL REQUIREMENTS

Operational Ambient Temperature	-40 to 70°C
Elevation	Operation to 15,000 feet
Shock and Vibration	Normal commercial shipping

