



**MODEL
DDC-11.7/12.2-950/1450S**

DUAL Ku- TO L- BAND BLOCK DOWNCONVERTER



FEATURES

- Economical
- Low phase noise
- Low profile (dual or single converter)
- Individual and summary alarm contact closure outputs

The DDC-11.7/12.2-950/1450S block downconverter is equipped with two high performance highly integrated Ku-to L-band single-conversion converters with redundant power supplies in a one-rack unit height chassis. The system can be provided with switching capability to select between the two internally converted L-band outputs and two external L-band inputs. The system provides high dynamic range, low phase noise, gain, and low noise figure.

OPTIONS

- Other frequency bands
- External input L-band switching
- Single converter with external input L-band switching
- Single converter without external input L-band switching
- 60 dB output level programming with 1 dB resolution
- RF mute

SPECIFICATIONS

INPUT CHARACTERISTICS

Conversion type	Single
Frequency sense.....	No inversion
Number of RF input channels	Two
Frequency	11.7–12.2 GHz*
Level.....	To -25 dBm operational, 0 dBm maximum
Impedance	50 ohms
VSWR	< 2:1
10 MHz reference.....	-3 to 0 dBm

OUTPUT CHARACTERISTICS

Number of downconverter outputs	Two
Power output (1 dB compression).....	15 dBm
Impedance	50 ohms
VSWR	< 2:1
Monitor output	15–20 dB below the main output

TRANSFER CHARACTERISTICS

Gain.....	36 dB \pm 2 dB
Gain flatness	\pm 1 dB
Noise figure	< 6 dB
Passband	950–1450 MHz
Passband rejection	
> 2300 MHz	< 40 dB
> 3000 MHz	> 70 dB
< 2300 MHz	> 70 dB
< 700 MHz	> 40 dB
Group delay	
500 MHz span.....	2 ns peak-to-peak
40 MHz span.....	1 ns peak-to-peak
AM to PM conversion	1°/dB maximum to +5 dBm output
Image rejection.....	> 60 dB
Second harmonic	< 45 dBc up to -35 dBm input
Inband spurious.....	> 60 dB
Out-of-band spurious	> 60 dB
LO leakage (at output)	< -70 dBm
Third order intermodulation products	
(-10 dBm output level)	60 dBc
Single-sideband phase noise	< -90 dBc/Hz typical at 1 kHz offset, < -100 dBc/Hz typical at 10 kHz offset, < -104 dBc/Hz typical at 100 kHz offset, < -127 dBc/Hz typical at 1 MHz offset

* For other frequency bands, consult factory.

SPECIFICATIONS

PRIMARY POWER REQUIREMENTS

Voltage	100/120/220/240 VAC \pm 10% (rear panel selectable)
Frequency	47–63 Hz
Power consumption.....	40 watts typical per channel

PHYSICAL

Weight	25 pounds (11.4 kg) nominal
Overall dimensions.....	19" x 22" x 1.75" (48.3 cm x 55.9 cm x 4.5 cm) maximum
Rear panel connectors	
RF in (channels 1 and 2).....	N female
RF out (channels 1 and 2).....	N female
Reference in	N female
RF output monitor (channels 1 and 2).....	SMA female
Reference monitor.....	SMA female
Contact closure	15-pin male, D connector

ENVIRONMENTAL

Operating	
Ambient temperature.....	0 to 50°C
Relative humidity	Up to 95% at 30°C, noncondensing
Atmospheric pressure	Up to 10,000 feet
Nonoperating	
Ambient temperature.....	-50 to +70°C
Relative humidity	Up to 95% at 40°C, noncondensing
Atmospheric pressure	Up to 40,000 feet
Shock and vibration.....	Normal handling by commercial carriers



100 Davids Drive, Hauppauge, NY 11788
TEL.: (631) 436-7400 • FAX: (631) 436-9219/436-7430
www.miteq.com