

A tunable block Downconverter covering both the commercial and military K Bands 17.7GHz to 21.2GHz and converting to L Band with an IF of 1.0GHz to 2.0GHz. Includes a digital Attenuator on the IF path and a jitter reduction circuit for the reference. Incorporates dual conversion to allow full coverage and reduced spurs. Hermetically sealed for rugged environments.

Features

- Multiband Coverage (17.7-21.2GHz)
- Tunable across the full band with 10MHz Resolution
- Low Phase Noise
- -70dBc Spurious
- Less than 10W
- Reference Cleanup Loop

Applications

- SatCom Dual Use
- Development Systems
- Airborne SatCom

Specifications

PARAMETER	VALUE
RF Input Frequency:	17.70GHz to 21.2GHz
IF Output Frequency:	1.0GHz to 2.0GHz
Tuning Range:	Any point in the RF band converted to 1.5GHz
Tuning Resolution:	10MHz
Tuning Speed:	<50µsec
Spectrum Sense:	Upright (non-inverting)
Phase Noise:	
10Hz	-50dBc/Hz
100Hz	-70dBc/Hz
1kHz	-82dBc/Hz
10kHz	-94dBc/Hz
100kHz	-100dBc/Hz
1MHz	-110dBc/Hz
Noise Floor (>10MHz):	<-130dBc/Hz
Gain (0dB Atten):	>30dB
Gain Flatness, any 1GHz	+/- 2dB Max.
Attenuator Range:	0-20dB
Attenuator Resolution:	0.5dB
Noise Figure:	<10dB
RF Return Loss	>10dB
IF Return Loss:	>10dB
LO Leakage (IF or RF port):	<-50dBm
Spurious:	
>Fc +/-1MHz	<-70dBc
Within 1MHz of carrier	<-50dBc
Image Rejection:	>80dB
OP1dB (0dB atten):	+17dBm Min.
OIP3 (0dB atten):	+28dBm Min.
EXT. Reference:	10MHz
Reference Input Power:	0+/-5dBm
Control:	RS422
Power:	+28VDC @ 350mA (<10W)
Connectors	
RF:	SMA-F
IF:	SMA-F
REF:	SMA-F
Power/Control:	MDM25
Operating Temperature:	-40°C to +85°C
Altitude:	60,000ft
Size:	
Without Mtg Plate	3"x8"x 1"
With Mtg Plate	3.25"x 8"x 1.8"

