

A tunable block Upconverter covering both the commercial and military Ka Bands 27.5GHz to 31.0GHz 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 (27.5-31.0GHz)
- Tunable across the full band with 10MHz Resolution
- Low Phase Noise
- -70dBc Spurious
- Less than 12W
- Reference Cleanup Loop

Applications

- SatCom Dual Use
- Development Systems
- Airborne SatCom

Specifications

PARAMETER	VALUE
RF Output Frequency:	27.5GHz to 31.0GHz
IF Input Frequency:	1.0GHz to 2.0GHz
Tuning Range:	1.5GHz converted to any point in the RF band
Tuning Resolution:	10MHz
Tuning Speed:	<50µsec
Spectrum Sense:	Upright (non-inverting)
Phase Noise:	
10Hz	-36dBc/Hz
100Hz	-65dBc/Hz
1kHz	-80dBc/Hz
10kHz	-90dBc/Hz
100kHz	-98dBc/Hz
1MHz	-110dBc/Hz
Noise Floor (>10MHz):	<-130dBc/Hz
Gain (0dB Atten):	>12dB
Gain Flatness, any 1GHz:	+/- 3dB Max.
Attenuator Range:	0-20dB
Attenuator Resolution:	0.5dB
Noise Density:	<-130dBm/Hz
RF Return Loss:	>10dB
IF Return Loss:	>10dB
LO Leakage (IF or RF port):	-60dBm
Spurious	
>Fc +/-1MHz:	<-70dBc
Within 1MHz of carrier:	<-50dBc
Image Rejection:	>80dB
OP1dB (0dB atten):	+14dBm Min.
OIP3 (0dB atten):	+27dBm Min.
EXT. Reference:	10MHz
Reference Input Power:	0+/-5dBm
Control:	RS422
Power:	+28VDC @ 400mA (<12W)
Connectors	
RF:	SMA-F (super SMA)
IF:	SMA-F (super SMA)
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"

