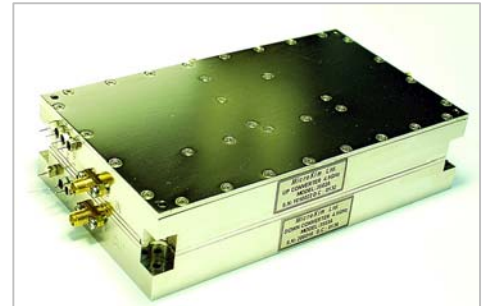


23 GHz Up/Down Converter Data Sheet

GENERAL DESCRIPTION

Microkim's line of various up /down converters are used for wireless communication applications such as: Point-to-Point, Point-to-Multi-point, WLL, MMDS, LMDS. These modules range from high-end modules for military and industrial applications to low-cost modules for general commercial applications.



GENERAL SPECIFICATIONS

TX

TX Operating Freq'	22-23.6 GHz
TX Output Power (P1dB)	Min +27 dBm
TX OIP3	Min +35 dBm
TX NF	Max 15 dB
TX Power Monitoring Accuracy	+/-2.0dB (over freq' & temp')
TX Gain Variation with temp.	+/-2 dB
Transmit on/off (by power Supply)	-60 dBc
Transmitter Stability	Within any Return loss level
Transmit Spurious	In band 22 - 23.6GHz - 55dBc @ 30KHz RBW
LO Leakage	-15 dBm (Out of band -25 dBm)
Transmit Gain	33dB Min.
Transmit Gain Variation	+/-0.5 dB Max within any 30 MHz BW
Transmit Group Delay Variation	+/-1ns Max. within any 30 MHz BW (by simulation)
Transmit RF return loss	12dB Min.
Transmit IF Freq'	2400 - 2500 MHz
Transmit IF return loss	Min 12 dB
Transmit If Power	-3+/-3 dBm
Transmit Phase Noise	@ 1KHz -85 dBc/Hz @ 10KHz -90 dBc/Hz @ 100KHz -96 dBc/Hz @ 1MHz -110 dBc/Hz

GENERAL SPECIFICATIONS

RX

RX Operating Freq'	22 - 23.6 GHz
Receiving Noise Figure	< 5 dB
Receiver Gain	Min 20 dB
Receiver Gain Variation	+/-0.5 dB Max within any 30 MHz BW +/-2 dB Max within any BW
Receiver Group Delay Variation	+/-1ns Max within any 30 MHz BW (by simulation)
Receiver RF return loss	12 dB Min.
Receiver RF return loss	12 dB Min.
Receiver Spurious to RF	<-40 dBc , LO leakage -10 dBc
Receiver IF Spurious In band	<-45 dBc
Receiver Image Rejection	-20 dBc
Receiver RF Input P	1dB -15 dBm
Receiver LO level (ext LO)	10 dBm
Receiver LO Freq'	9900 - 10900 MHz
Receiver IF Freq'	CF 200 MHz (BW = 2400-2600 MHz)
Receiver IF Return Loss	12dB Min.

General

Connectors RF, LO, IF	SMA (F)
Dimensions	130 x 65 x 20mm (x2)
Power Requirements	15 to 24VDC, 1A Max.
Operating Conditions	ETS 300 019 class 4.1E
Operating Temperature	0 to 60°C

Note: Specifications are subject to change without notice.



3 Ha'Yozma St.
P.O. Box 2023
Tirat Carmel, 39120
Israel

Tel: +972 (0)4 857-7490
Fax: +972 (0)4 858-0534
Email: marketing@microkim.com
Website: www.microkim.com