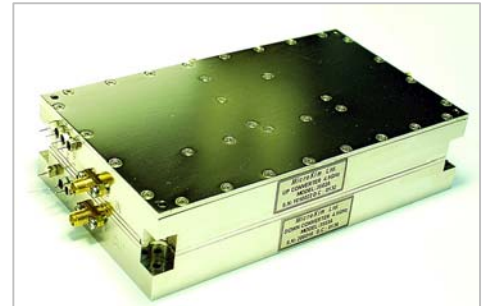


11 GHz Up/Down Converter Data Sheet



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'	10.7 - 11.7 GHz
TX Output Power	Min +32 dBm
TX OIP3	Min +40 dBm 2 ton 3 MHz, @ -10 dB, -18 dB
TX NF	Max 15 dB
TX Power Monitoring Accuracy	32-22 dBm +/-1.0 dB (over freq' & temp') 22-17 dBm +/-1.5 dB 17-12 dBm +/-2.0 dB (0.5 to 4.5v output)
TX Power Monitoring Dynamic Range	Min 20 dB from P1 dB
TX Gain Variation	+/-1.5 dB
TX Power output Variation With temp.	+/-2 dB
Transmit on/off (by power Supply)	-60 dBc
Transmitter Stability	Within any Return loss level & Phase
Transmit Spurious 55dBc @ 30KHz RBW	In band 10.7-11.7 GHz -
LO leakage	-15 dBm
Out of band	-25 dBm
Transmit Gain	35dB Min.
Transmit Gain Variatio	+/-0.5dB 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
TX LO Freq' (ext LO)	8300 - 9300 MHz
TX LO level (ext LO)	10d Bm +/-2.0 dB

GENERAL SPECIFICATIONS

RX

RX Operating Freq'	10.7 - 11.7 GHz
Receiving Noise Figure	< 2.5 dB
Receiver Gain	Min 20 dB
Receiver Gain Variation	+/-0.5 dB Max. within any 30 MHz BW
Receiver Gain Variation With Temperature	+/-2 dB Max .within any BW +/-3 dB Max.
Receiver Group Delay Variation	+/-1 ns Max within any 30MHz BW (by simulation)
Receiver RF return loss	12 dB Min.
Receiver Spurious to RF	<-40dBc , LO leakage -30 dBc
In band (2000 - 2100 MHz)	<-45 dBc
Out band	-40 dBc
Receiver Image Rejection	-20 dBc
Receiver IF Spurious	
Receiver RF Input P1dB	-15 dBm
Receiver RF Input IP3	-7 dB
Receiver LO level (ext LO)	10 dBm+/-2.0 dB
Receiver LO Freq'	8700 - 9700 MHz
Receiver IF Freq'	2000 - 2100 MHz
Receiver IF Return Loss	12dB Min.

General

Connectors RF, LO, IF	SMA or TBD
Dimensions	125 x 60 x 20 (x 2) mm
TX Input Voltage	10V, -5V
TX Current Consumption	2A, 0.1A
RX Input Voltage	6V, -5V
RX Current Consumption	0.5A, 0.1A
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