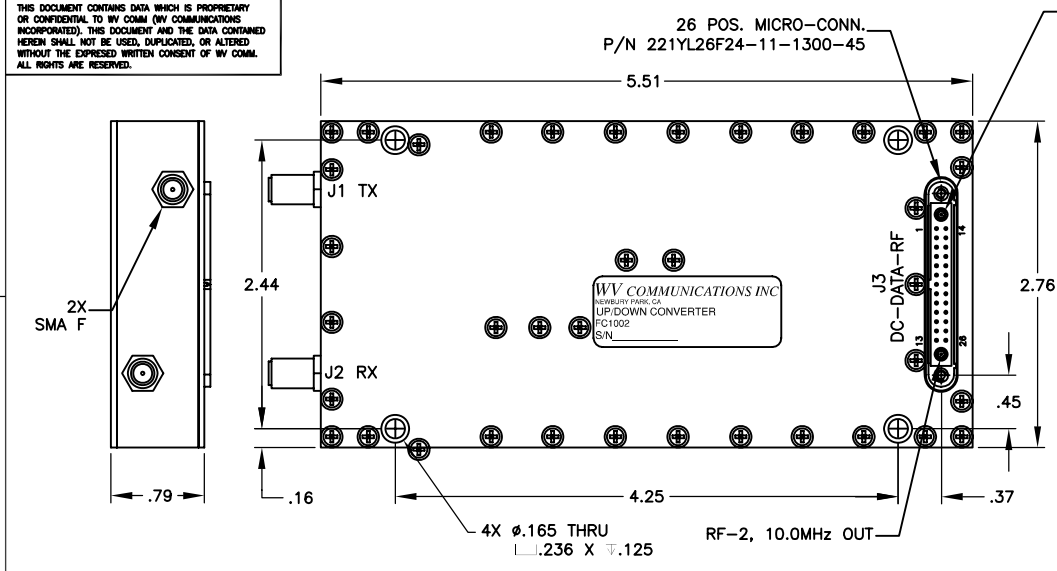


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REVISIONS			
REV. NO.	DESCRIPTION	DATE	APPROVED
A	RELEASED	2-01-05	J.M.



J3 - DC-DATA-RF	
PIN NO.	DESIGNATION
1	V-BAT-D
2	V-BAT-P
3	V-BAT-P
4	GND
5	TX-ON-OFF
6	RS-232-TX
7	RS-232-RX
8	RS-232-CLK
9	TX-I-IN-H
10	TX-Q-IN-H
11	SPR4
12	AGC-CONT-IN
13	SPR6
14	V-BAT-N
15	V-BAT-N
16	V-BAT-N
17	GND
18	RX-ON-OFF
19	SPR1
20	SPR2
21	SPR3
22	TX-1-IN-L
23	TX-Q-IN-L
24	TCXO-V-IN
25	Option-TCXO-ADJ
26	UDC Reset
RF-1	RX-IF-OUT
RF-2	TCXO-OUT

CONNECTOR TABLE	
REF. DESIG.	FUNCTION
J1	RF INPUT
J2	RF OUTPUT
J3	DGD-DATA-RF

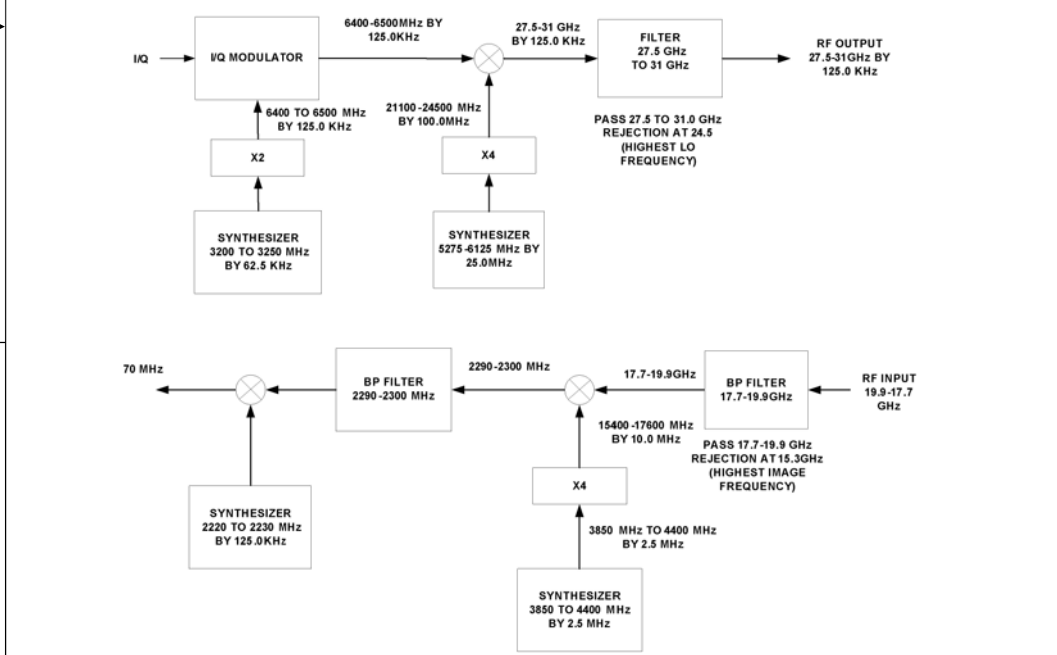
TX Specifications
TX FREQUENCY BAND: 27.5-31.0GHz
FREQUENCY STEP: 125.0KHz Nominal
RF POWER OUTPUT: +30dBm Minimum
FREQUENCY STABILITY: 10.00MHz ±0.5ppm Maximum
 Over Temperature
FREQUENCY SWITCHING TIME 0.5mSec Maximum
MODULATION: QPSK
I/Q DATA INPUT LEVEL: 0.5 - 0.8 Volt RMS
UN-CODED DATA RATE: 1MBps
POWER CONTROL RANGE 15.5dB in 0.5dB steps Nominal
POWER GAIN VARIATION 0.6 dB p-p Maximum
HARMONICS -60dBc Maximum
SPURIOUS LEVEL -50dBm Maximum
OUTPUT IMPEDANCE 50 Ohm
OUTPUT VSWR 2:1 Maximum (Ref 50 Ohm)
OUTPUT SSB NOISE -60dBc Maximum @ 1KHz Offset
 -70dBc Maximum @ 10KHz Offset
 -80dBc Maximum @ 100KHz Offset
 -100dBc Maximum @ 1MHz Offset

OUTPUT NOISE LEVEL -140 dBm/Hz Maximum
DUTY CYCLE 25%
LO LEAKAGE -30dBc Maximum
TCXO VOLTAGE 3.3±0.1 Volt at 3.0mA Maximum
ON / OFF CONTROL TTL "0" = On TTL "1" = Off
DC VOLTAGE & CURRENT: 5.6vdc to 7.6vdc at 1.4A

RX Specifications
RX FREQUENCY BAND: 17.7 to 19.9GHz
FREQUENCY STEP: 125.0 KHz Nominal
FREQUENCY SWITCHING TIME 0.5 mSec Maximum
LO 1 FREQUENCY: 13700-15800MHz in 100.0MHz Steps
LO 2 FREQUENCY: 3300-3400MHz in 10.0MHz Steps
LO 3 FREQUENCY: 630-640MHz in 125KHz Steps
MODULATION QPSK
L-BAND OUTPUT GAIN 30dB Minimum
70MHZ IF OUTPUT GAIN 50 to 80 dB Nominal User Controlled
70MHZ IF FILTER: 3dB BW 0.5MHz Nominal
 35dB BW 1.28MHz
DYNAMIC AGC 30dB Min
IF AGC CONTROL INPUT 0 - 3V/1mA Maximum
NOISE FIGURE: 2dB Maximum at +25C
LO SSB NOISE: -75dBc Maximum @ 1KHz Offset
 -70dBc Maximum @ 10KHz Offset
 -80dBc Maximum @ 100KHz Offset
 -100dBc Maximum 1MHz Offset

1dB COMPRESSION +10dBm at the 70MHz IF output Port
GAIN VARIATION ±5dB Maximum
SPURIOUS -60dBm Maximum
IMAGE REJECTION 40dBc Minimum
IF HARMONICS -40dBc Minimum
INPUT/OUTPUT IMPEDANCE 50 Ohm Nominal
INPUT VSWR 2:1 Maximum (Ref 50 Ohm)
TX REJECTION 50dB Minimum
RX SENSITIVITY DEGRADATION 1dB Maximum with 20dB KU
 Output / Input Isolation

ON / OFF CONTROL TTL "0" = On TTL "1" = Off
DC VOLTAGE & CURRENT: 5.6V at 100mA Maximum
 7.6V at 150mA Maximum
CPU SLEEP MODE CURRENT: 0.5mA Maximum
REMOTE CONTROL: Via RS-232 3.3V 9600N81
TEMPERATURE RANGES: Operating -10 to +70 Deg C
 Storage -40 to +85 Deg C



APPROVALS		DATE	WV Communications 1176 Tourmaline Dr. Newbury Park, Ca.
DESIGNED BY	TONY T.	07/27/04	
DESIGNED BY	J. MEDNA	2-01-05	
DESIGNED BY	TT	2-01-05	
DESIGNED BY	JT	2-01-05	
DESIGNED BY	AM	2-01-05	
DESIGNED BY	DB	2-01-05	

800-80187	USED ON	SCALE NONE	REV. 1 OF 1
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Mini KA Up/Down Converter, 1 Watt
MODEL: FC1002
1GRQ7 050-50491

050-50491