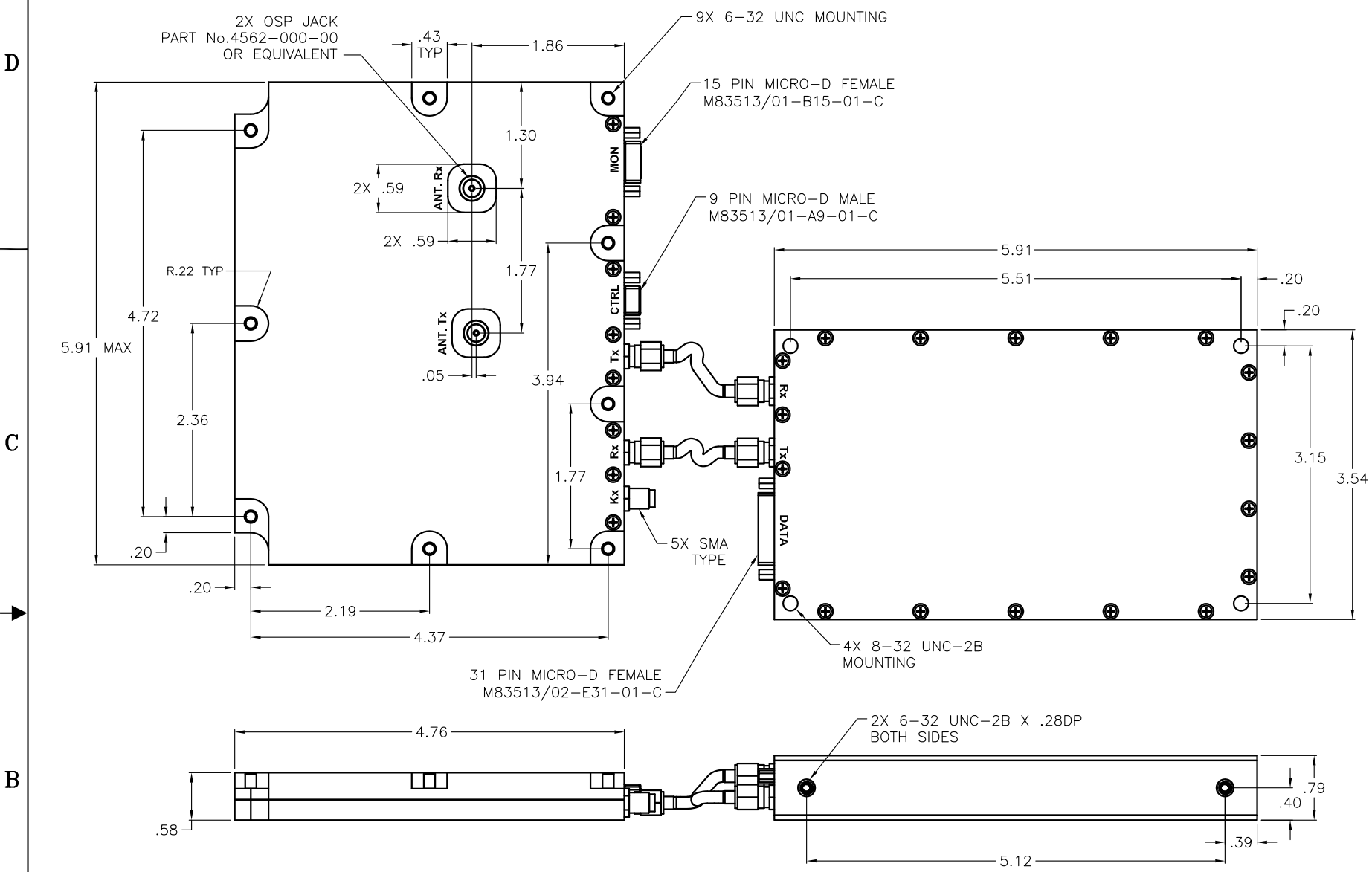


**** PROPRIETARY DATA ****
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| REVISIONS | | | | |
|-----------|----------|-------------|----------|----------|
| ZONE | REV | DESCRIPTION | DATE | APPROVED |
| A | RELEASED | | 02/18/08 | T.T. |



TX Specifications
TX FREQUENCY BAND: 13.75-14.5GHz
FREQUENCY STEP: 125.0KHz Nominal
RF POWER OUTPUT: +36dBm 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: -65dBc 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: 8-14Vdc to 2.5Amp Max

RX Specifications
RX FREQUENCY BAND: 10.7 to 11.7GHz OR 11.7-12.75GHz (To be specified at time of order)
FREQUENCY STEP: 125.0KHz Nominal
FREQUENCY SWITCHING TIME: 0.5 mSec Maximum
LO 1 FREQUENCY: 8.8 to 10.8 GHz in 10.0MHz Steps
LO 2 FREQUENCY: 1820.0 to 1830.0 MHz in 125.0KHz
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: 2.5dB Maximum at +25C
 (2dB Typical)
LO SSB NOISE: -65dBc 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

| | | | | |
|---|--|------------|----------|--|
| UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS DECIMALS ANGLES HOLES ± 1/64 .01 ± 90° .012 ± .005 .XXX ± .005 .XXX ± .005 MACHINED FINISH: 32 RMS REMOVE BURRS .005 MAX | | APPROVALS | DATE | WV Communications 1176 Tourmaline Dr. Newbury Park, CA OUTLINE DRAWING VSAT FRONT END & UP/DOWN CONVERTER FE1001 |
| MATERIAL | | DRAWN | 02/18/08 | |
| FINISH | | CHECKED | 02/18/08 | SIZE CAGE CODE DWG. NO. REV D 1GFQ7 050-50634 A |
| NEXT ASSEMBLY USED ON | | MECH ENGR | 02/18/08 | |
| APPLICATION | | ELEC ENGR | 02/18/08 | SCALE NONE SHEET 1 OF 1 |
| DO NOT SCALE DRAWING | | PRODUCTION | 02/18/08 | |
| | | Q.A. | 02/18/08 | |

DWG NO. 050-50634 REV A