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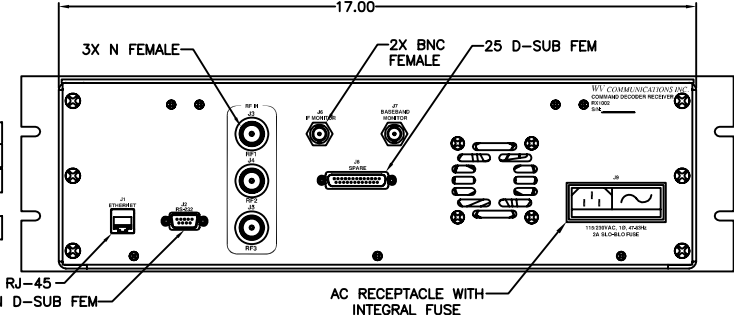
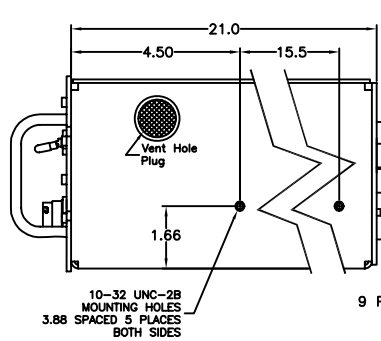
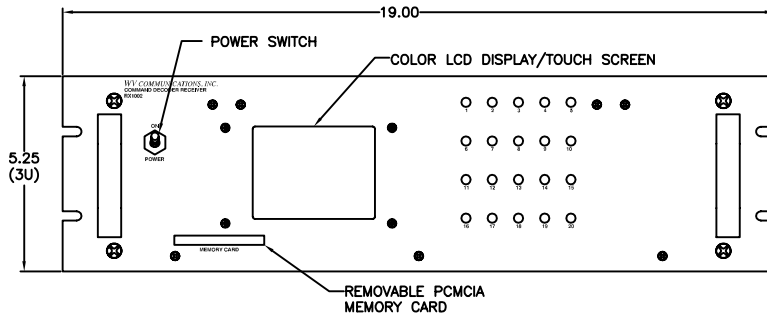
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	RELEASED	11-29-06	TT



**RECEIVER CHARACTERISTICS:**

**FREQUENCY RANGE:** 370-450MHz in 100.0 KHz Steps  
**FREQUENCY STABILITY:** ±0.002% Maximum / Environment 824 Hours  
**NOISE FIGURE:** 6dB Maximum  
**SPURIOUS & IMAGE REJECTION:** -60dBc Maximum  
**LO RERADIATION:** -60dBm Maximum  
**RF INPUT IMPEDANCE:** 50 Ohm Nominal  
**VSWR INPUT:** 2:1 Maximum (Ref 50 Ohm)  
**RF INPUT DYNAMIC RANGE:** -104 to +13dBm  
**SIGNAL STRENGTH / DEVIATION INDICATION:** Via Front Panel LCD & Ethernet  
**SIGNAL STRENGTH REPORTING ACCURACY:** ±2dB Maximum  
**PEAK DEVIATION REPORTING ACCURACY:** ±7% Maximum of Received Carrier Deviation @ RF Input Level +13 to -85dBm  
**IF 3dB BANDWIDTH:** 500±50KHz  
**IF 60dB BANDWIDTH:** 1500±150KHz  
**COMMUNICATION:** Via Ethernet Command/Monitoring of Tones, RF Input Power, Tone Deviation, Messaging Status

**IRIG DECODER CHARACTERISTICS:**

**NUMBER OF IRIG TONES:** 20 Channels (See Tone Frequency Table)  
**-2dB TONE BANDWIDTH:** ±1% Minimum  
**-20dB TONE BANDWIDTH:** ±4% Maximum  
**SIMULTANEOUS TONE DETECTION:** 1 to 6 Tones  
**DECODER CARRIER DEVIATION RANGE:** ±30KHz Nominal / Tone (±20 to ±35KHz Range)  
**DECODER RESPONSE TIME:** 10 Millisecond Maximum  
**DECODER OUTPUT:** Via Front Panel LED & J1 Ethernet  
**DECODER ACTION:** Should Not Latch. A Continuous Signal Should Be Emitted While a Tone is Being Received  
**TONE DURATION:** 20 Millisecond Minimum  
**LED ACTION:** Should Not Latch since IRIG Tones Are Continuous; i.e. LEDs Are Illuminated When Tone(s) are Being Received

**SECURE DECODER CHARACTERISTICS:**

**NUMBER OF TONES:** 8 Channels (See Table for Precise Tones)  
**-2dB TONE BANDWIDTH:** ±40Hz Minimum  
**-20dB TONE BANDWIDTH:** ±600Hz Maximum  
**SIMULTANEOUS TONE DETECTION:** 2 Tones  
**SECURED TONE DETECTION OPTIONAL OUTPUT:** Ethernet Via J1  
**DECODER CARRIER DEVIATION:** ±30 to ±3 KHz for Each Tone  
**DECODER RESPONSE TIME:** 10 Millisecond Maximum (5 Millisecond Typical)

**ENVIRONMENTAL:**

**OPERATING TEMPERATURE RANGE:** 0 to +50°C  
**OPERATING RELATIVE HUMIDITY:** 0-95%  
**OPERATING ALTITUDE:** 0-10,000 Feet  
**MTBF:** 20,000 Hours Minimum  
**MTR (MEAN TIME TO REPAIR):** 1 Hour Maximum Down to Card Level  
**AC INPUT:** 115/230VAC Auto-Switch at 2 Amp Max Single Phase 47-63Hz  
**FRONT PANEL COLOR:** Black per MIL-STD-27038

PIN NO.	PIN NAME
1	TX+
2	TX-
3	RX+
4	N/C
5	N/C
6	RX-
7	N/C
8	N/C

PIN NO.	PIN NAME
1	N/C
2	RX
3	TX
4	N/C
5	GND
6	N/C
7	RTS
8	CTS
9	N/C

TONE	IRIG FREQUENCY (KHz)	SECURE FREQUENCY (KHz)	TONE	IRIG FREQUENCY (KHz)
1	7.50	7.35	11	25.01
2	8.46	8.40	12	28.21
3	9.54	9.45	13	31.83
4	10.76	10.50	14	35.90
5	12.14	11.55	15	40.49
6	13.70	12.60	16	45.68
7	15.45	13.65	17	51.52
8	17.43	15.45	18	58.12
9	19.66	--	19	65.56
10	22.17	--	20	73.95

Secure Tone

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. TOLERANCES ARE:  
 FRACTIONS DECIMALS ANGLES HOLES  
 ± 1/64 .001 ±0.001 ±0.001 ±0.001  
 .XXX±.005 .XXX±.005 .XXX±.005 .XXX±.005  
 MACHINED FINISH: 32 RMS REMOVE BURRS .005 MAX

MATERIAL: \_\_\_\_\_  
 FINISH: \_\_\_\_\_

APPROVALS	DATE
DRAWN G. GODDARD	07NOV06
CHECKED TONY T.	26NOV06
MECH ENGR GG	26NOV06
ELEC ENGR JT	26NOV06
PRODUCTION AM	26NOV06
Q.A. DB	26NOV06

1176 Tourmaline Dr.  
 Newbury Park, CA

**COMMAND DECODER RECEIVER**  
 IRIG/SECURE 20/8 TONE 370-450MHz  
 P/N: RX1003

SIZE C	CAGE CODE 1GFQ7	DWG. NO. 040-50035	REV A
SCALE NONE	SECRET 1 OF 1		

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INFO NO. 040-50035  
 REV A

040-50035-001-A, REV C, 04/06