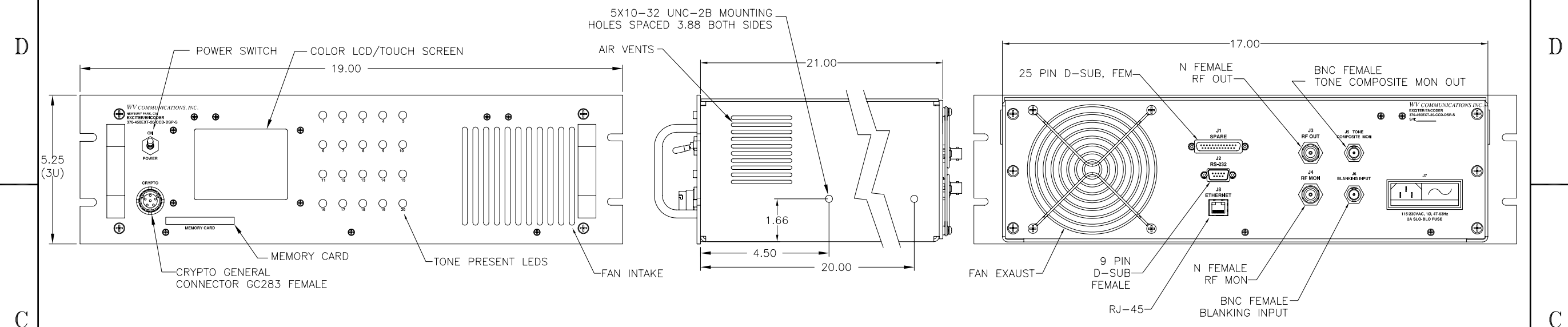


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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	B	RELEASED	20SEP05	TT



- ENCODER**
NUMBER OF TONES: IRIG-20 Tones Secure-8 Tones
TONE FREQUENCY STABILITY: ±0.1% Maximum
TONE ACTIVATION INPUT: Front Panel LCD Touchscreen or Ethernet
OUTPUT AMPLITUDE VARIATION: 15% Maximum
OUTPUT DISTORTION: 1% Maximum with any Tone Enabled
TONE OUTPUT IMPEDANCE: 50Ω Nominal
TONE OUTPUT SIGNAL DELAY: 10mSec Maximum (5 mSec Typical) from Application of Tone Command to Stable Output within 0.1%
TURN ON STABILITY: Frequency Stable within 0.1% after 1 second
TONE FREQUENCIES: See Table
LED TONE MONITOR: Front Panel LEDs indicate active Tone
LOCAL ACTIVATION: Via Front Panel LCD Touchscreen
REMOTE ACTIVATION: Via rear Panel Ethernet Interface
- EXCITER**
CARRIER FREQUENCY: 370.0 to 450.0 MHz in 100.0 KHz Steps
FREQUENCY SELECTION: Via Front Panel LCD Touchscreen / Remote Ethernet Interface
CARRIER STABILITY: Within ±0.001% maximum
OUTPUT POWER / RANGE: -5.5 to +10 dBm (**Optional +27.5 to +43dBm in 0.5dB Steps (15.5dB Range)
POWER SELECTION: Via Front Panel LCD Touchscreen / Remote Ethernet
FM MODULATION RESPONSE: ±0.5dB Maximum over 5-75KHz
DEVIATION LEVEL: ±30KHz per Tone Nominal
DEVIATION LEVEL ADJUST: Set for Deviation of ±30KHz per Tone Via Front Panel LCD Touchscreen / Remote Ethernet
- CRYPTO INTERFACE:** ** Optional Crypto Interface
- ENVIRONMENTAL:**
OPERATING TEMPERATURE RANGE: 0 to +50°C
OPERATING RELATIVE HUMIDITY: 0-95%
OPERATING ALTITUDE: 0-10,000 Feet
MTBF: 20,000 Hours Minimum
MTTR (MEAN TIME TO REPAIR): 1 Hour Maximum Down to Card Level
AC INPUT: 115/230VAC Auto-Switch at 1 Amp Max Single Phase 47-63Hz (5 Amp Max for 20 Watt Option 01)
FRONT PANEL COLOR: Black per MIL-STD-27038

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

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

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 LTR.	PIN NAME
A	REF/RTN
B	N/U
C	REQUEST
D	DATA
E	CLOCK
F	N/U

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. TOLERANCES ARE:
 FRACTIONS DECIMALS ANGLES HOLES
 ± 1/64 .XX±.01 ±0°30' .XX±.005
 .XXX±.005 .XXX ±.003
 MACHINED FINISH: 32 RMS REMOVE BURRS .005 MAX
 MATERIAL
 FINISH
 DO NOT SCALE DRAWING

900-50165	
NEXT ASSEMBLY	USED ON
APPLICATION	DO NOT SCALE DRAWING

APPROVALS	DATE
DRAWN G. GODDARD	20SEP05
CHECKED TONY T.	20SEP05
MECH ENGR GUY G.	20SEP05
ELEC ENGR J.T.	20SEP05
PRODUCTION U.Y.	20SEP05
Q.A. D.B.	20SEP05

WV Communications 1176 Tourmaline Dr. Newbury Park, Ca.

COMMAND EXCITER/ENCODER (CEE) CRYPTO I/F
 IRIG/SECURE 20/8 TONE 370-450MHz 20WATTS
 MODEL: 370-450EXT-20-CCD-DSP-S
 P/N: EX1000

SIZE C	CAGE CODE 1GFQ7	DWG. NO. 050-50513	REV B
SCALE NONE	SHEET 1 OF 1		

DWG NO. 050-50513
 REV B
 DC-FORML-00015-3, REV. C, 06/08