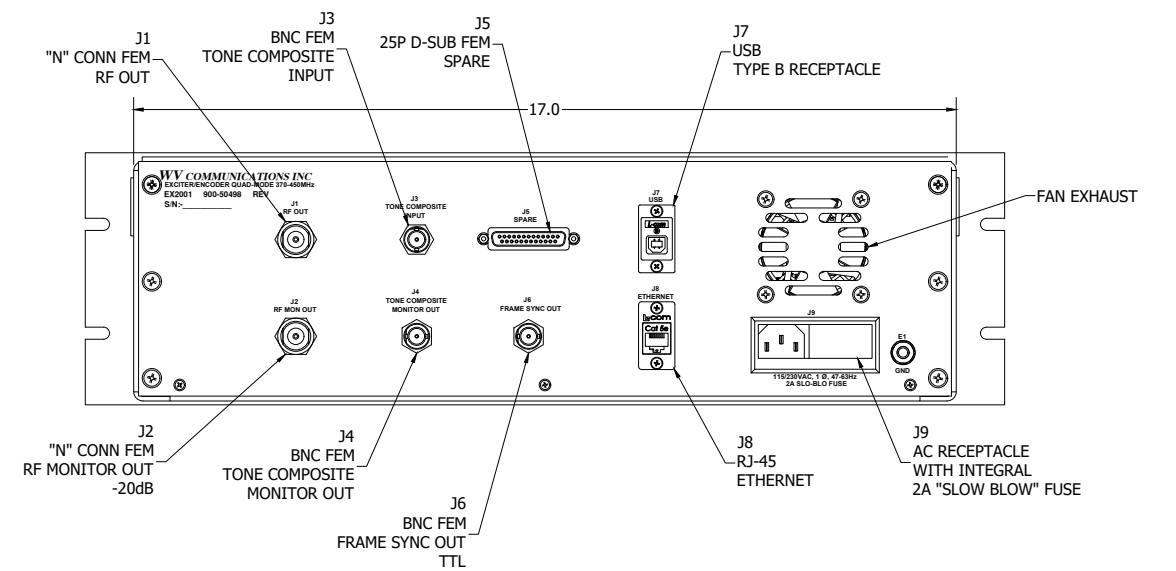
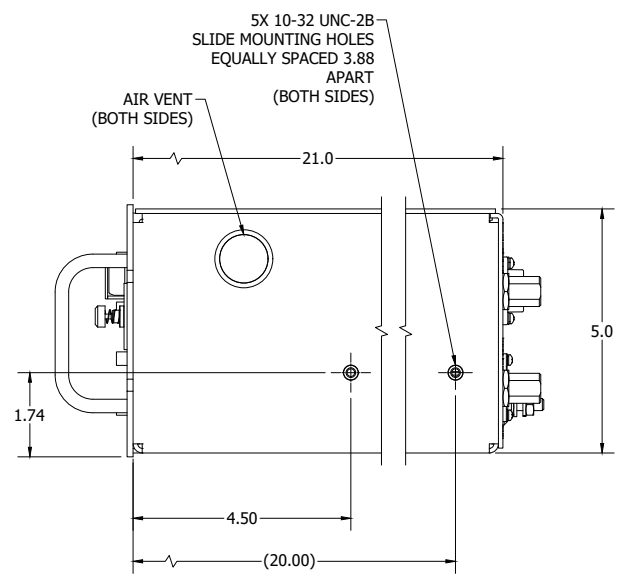
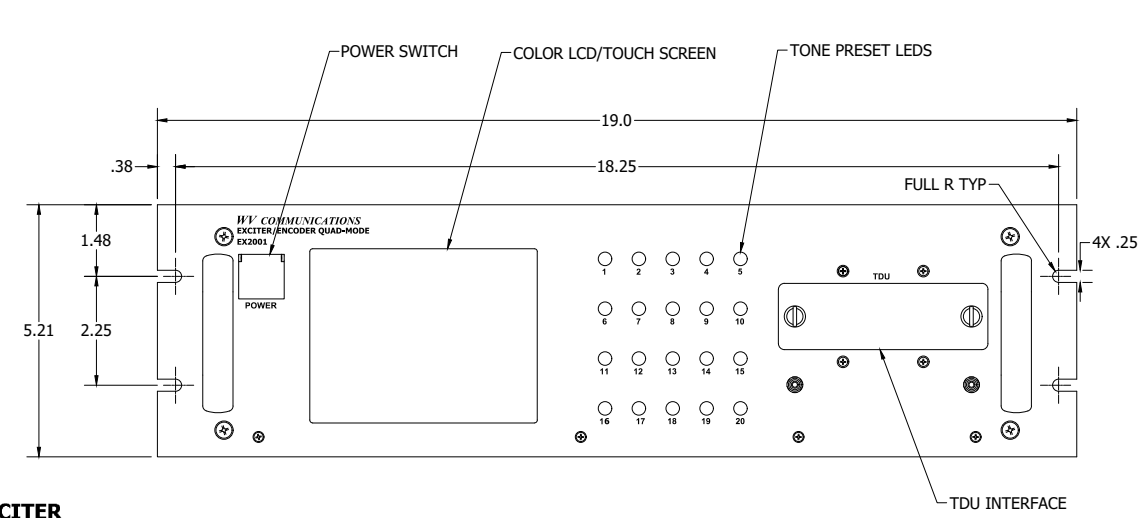


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(ECO #20-0007)

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
A	RELEASE		7/19/19	TT



RF EXCITER
 Carrier RF Frequency: 370.0-450.0MHz in 1.0kHz Steps
 RF Output Power: -5 to +10dBm in 0.5dB Steps
 Carrier Frequency Stability: ±0.0005% (±5PPM) Maximum over environmental conditions and 24 hours
 RF Output Impedance: 50Ω Nominal
 RF Output VSWR: 2.0:1 Maximum
 Deviation Level: ±10 to ±45kHz / Tone Adjustable
 RF Output Harmonics/Spurious: 60dBc Minimum rejection
 FM Deviation Response: ±0.5dB Maximum over 5-75kHz Tones

ENCODER
 Types: IRIG, Secure Tone (HA), FSK & EFTS
 Number of Tones: IRIG: 20 Tones, Up to 6 Simultaneous
 Secure: 2 tones (pairs) out of 8 Tones
 Tone Frequency Stability: ±0.01% Maximum
 Turn On Stability: Frequency Stable within 0.1% after 1 second
 Optional Discrete Tone Activation Input: TTL levels, ON < 0.8Vdc, OFF > 2.4Vdc
 Tone Monitor Output Level: 1V Pk-Pk for ±30kHz Deviation/50Ω Load
 Tone Output Amplitude Variation: 15% Maximum
 Tone Output Distortion: 1% Maximum with any Tone Enabled
 Tone Output Signal Delay: 5mSec Max from ACS to Stable Output within 0.1%sec.
 Tone Output Monitor Impedance: 50Ω Nominal
 EFTS Command Format: 64-bit Digital word per RCC 208-06
 EFTS Message Format: 144-bit message frame per RCC 208-06
 EFTS Bit & Message Rate: 50 messages per second
 EFTS Encoding: Manchester Bi-Phase Level Encoding per IRIG 106
 EFTS Pre-Modulation Filtering: 4-pole linear phase filter with a bandwidth of 14.4kHz at the -3dB points.
 EFTS Bit Rate Stability: 1,000 ppm Maximum
 Encryption Device: Triple Data Encryption Standard (DES) Unit (TDU)
 FSK Tone Frequency: 15kHz-Mark '1', 10kHz-Space '0' (Factory setting)
 Tones Frequency setting: User configurable Tones 5-75kHz in 10Hz increments (remotely settable)
 Tone Frequency Stability: ±0.01% Maximum
 Tone Monitor Output Level: 1V Pk-Pk Nominal for ±30kHz Deviation/50Ω Load
 Tone Output Amplitude Variation: 15% Maximum
 Tone Output Monitor Impedance: 50Ω Nominal

STATUS & CONTROL: Local via Color LCD Touchscreen, Remote via Serial RS-232 and Ethernet UDP/IP

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: 1 Hour Maximum down to card level
 AC Input: 115/230 VAC Auto-Switch, 1Ø, 47-63Hz at 2/1 Amp Maximum
 Front Panel Color: Gray per FED-STD-595 - 26307

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

J7 USB		
PIN NO.	PIN NAME	DESCRIPTION
1	VCC	+5VDC
2	D-	DATA-
3	D+	DATA+
4	GND	GROUND

J8 ETHERNET	
PIN NO.	PIN NAME
1	TX+
2	TX-
3	RX+
4	N/C
5	N/C
6	RX-
7	N/C
8	N/C

DASH NO.	TITLE	NEXT ASSEMBLY	USED ON
-001	(IRIG/FSK)	900-50498-001	EX2001-001
-000	(IRIG/HIGH ALPHA/FSK/EFTS)	900-50498	EX2001
DASH NO.	TITLE	NEXT ASSEMBLY	USED ON
DASH NUMBER TITLE		APPLICATION	

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		APPROVALS		DATE
FRACTIONS ± 1/64	DECIMALS .XX ± .01	XX ± .005	ANGLES ± 0°30'	Holes .XXX ± .001
MACHINED FINISH: .32 RMS REMOVE BURRS: .005 MAX MATERIAL		DRAWN	TT	7/19/2019
		CHECKED	TT	7/19/2019
		MECH ENGR	TT	7/19/2019
		ELEC ENGR	JT	7/19/2019
		PRODUCTION	AM	7/19/2019
		Q.A.	SG	7/19/2019

WV Communications 1125 A Business Center Circle
 Newbury Park, CA

EXCITER/ENCODER QUAD-MODE
 (IRIG/HIGH ALPHA/FSK/EFTS) 370-450MHz
 MODEL: EX2001

SIZE: D	CAGE CODE: 1GFQ7	DWG. NO.: 050-51089	REV: A
SCALE: NONE	SHEET 1 OF 1		

DWG NO. 050-51089