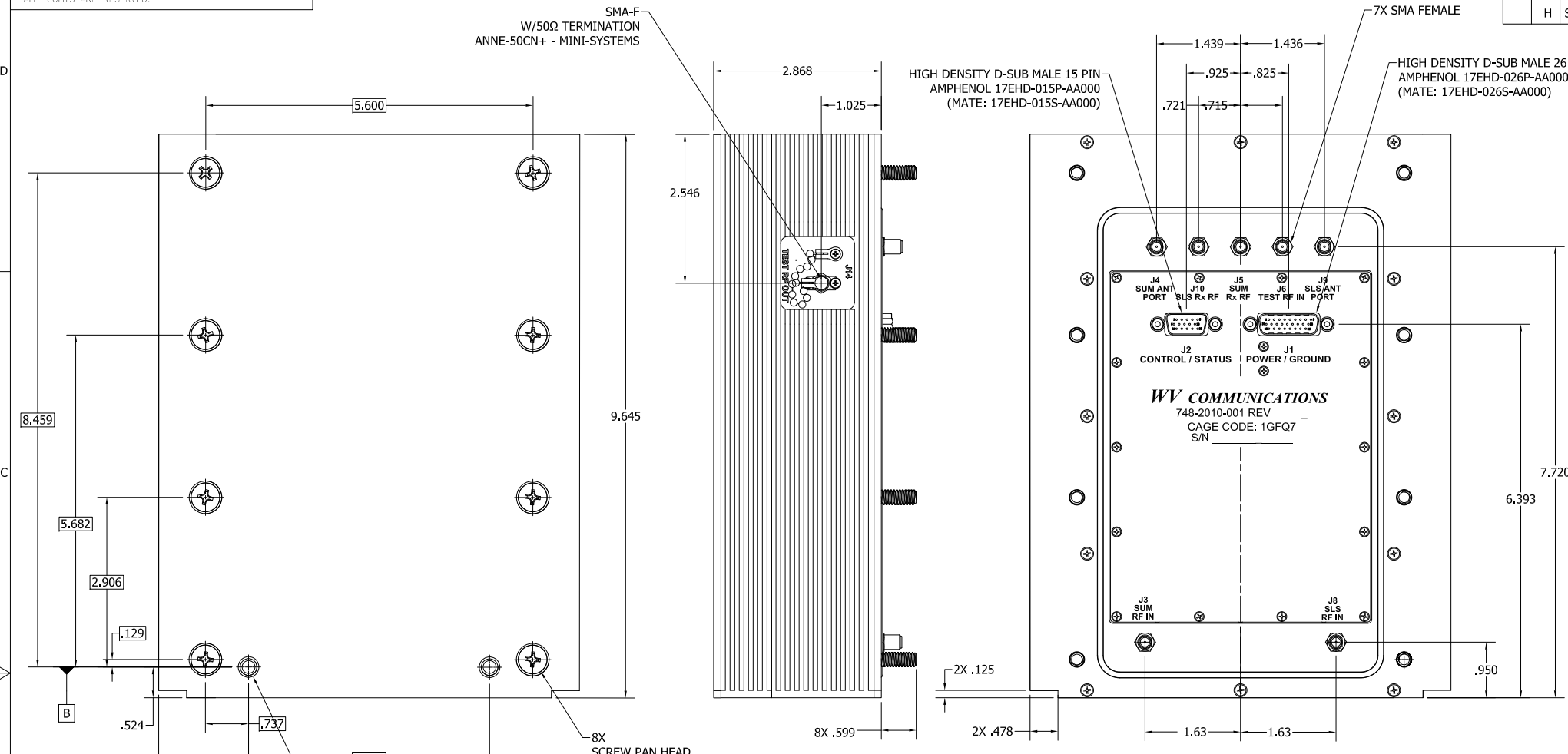


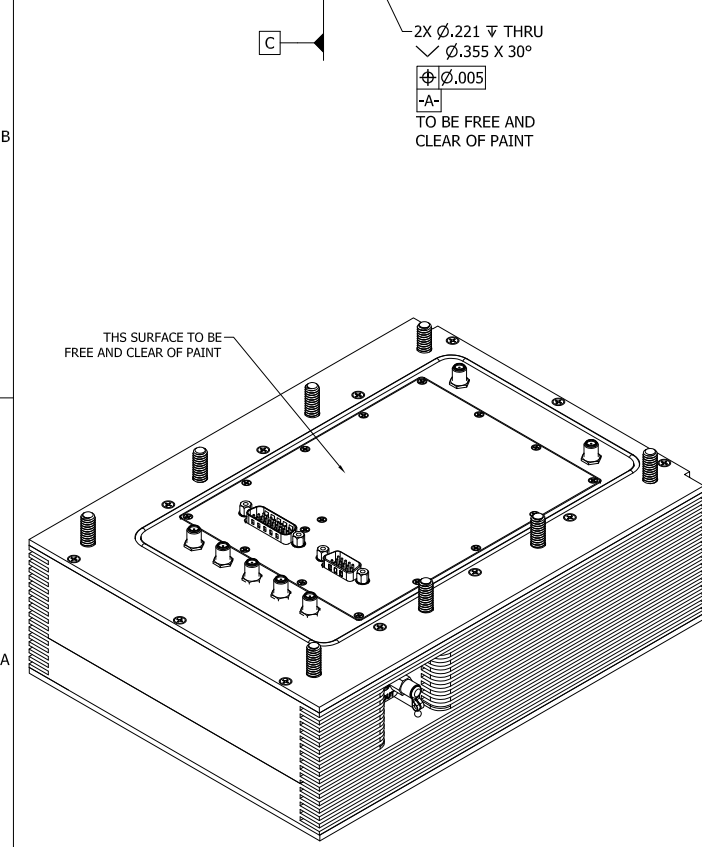
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		REVISIONS				
		ZONE	REV	DESCRIPTION	DATE	APPROVED
E	ADDED "TO BE FREE AND CLEAR OF PAINT TO 2X .221 DIA HOLES				10/27/16	TT
F	SCREW LENGTH IS 8X .35 WAS 8X .30		A	RELEASED	8/24/2016	TT
G	SCW L CHG TO 3 1/2" IS 8X .85 WAS 8X .35		B	MOVED MICRO-D CONN'S 6.68 WAS 6.80	09/20/16	TT/DB
H	SCW L CHG TO 3.0" IS 8X .60 WAS 8X .85		C	J1 & J2 CHG'D WAS MICRO-D IS HD D-SUB .639 WAS .680, ADDED .93 & .83 CON CL	09/29/16	TT/DB
			D	UPDATED J1 & J2 PIN OUT TABLES	10/21/16	TT



**DUAL SUM/SLS IFF AMPLIFIER SPECIFICATIONS SUMMARY**

**OPERATING FREQUENCY RANGES:** 1030±8MHz  
**OPERATION MODE:** Class AB (Supports all IFF modes of operation including Long Mode S & Mode 5)  
**RF GAIN:** 55.8±0.5dB Maximum  
**RF GAIN LEVELING:** Auto leveling settling within 1 Sec Maximum  
**RF GAIN TRACKING SUM/SLS:** ±0.25dB Maximum  
**RF INPUT VSWR:** 1.5:1 Maximum  
**RF INPUT MODULATION:** RF Pulse arbitrary Phase Modulation 15MHz at 3dB Maximum, AM at 30dB Maximum  
**RF OUTPUT POWER RANGE:** 1030MHz +40.8 to +60.8dBm Minimum @P1dB Pt +60.8dBm Minimum at 1.65% Duty Cycle  
**RF OUTPUT PULSE WIDTH:** 32µS Maximum  
**LONG TERM AVG DUTY CYCLE:** Sum: 1.65% Minimum SLS: 0.07% Minimum  
**SHORT TERM BURST DUTY CYCLE:** Sum: 4.4% SLS: 0.2% over 72mSec  
**LONG TERM MODE S AVG DUTY CYCLE:** Sum: 2.1% Minimum SLS: 0.09% Minimum  
**SHORT TERM MODE S AVG DUTY CYCLE:** Sum: 7.14% Minimum SLS: 0.32% Minimum over 5mSec  
**RF OUTPUT VSWR:** 1.5:1 Maximum (Ref 50Ω)  
**RF OUTPUT:** Will operate into 10:1 VSWR without damage, output Isolator protected  
**SMALL SIGNAL GAIN & FLATNESS:** 55.8±0.5dB Maximum into 1.05:1 VSWR  
**INPUT AND OUTPUT IMPEDANCE:** 50Ω Nominal  
**HARMONIC SIGNAL LEVELS:** 2nd -30dBc, 3rd -50dBc Maximum 4th -65dBc, 5th -70dBc Maximum 6th -75dBc, 7th -80dBc Maximum 8th through 12th -90dBc Maximum  
**RECEIVER OPERATING FREQUENCY:** 1090±8MHz  
**SUM/SLS T/R SWITCH:** Hot Switch capable  
**RECEIVER PORT PROTECTION:** 1090MHz Limiter protected to +10dBm Maximum  
**COOLING:** Customer supplied Forced air via integral Front and Rear Panel Openings  
**FAULT INDICATIONS:** Thermal, MOD Gate, Duty Cycle, VSWR, Gain, RF input Power Low, RF Output Power high, DC Input Voltage below Threshold  
**TEMPERATURE RANGES:** Operating: -25 to +65°C Storage: -55 to +71°C  
**RELATIVE HUMIDITY:** 25% to 90% (Non-Condensing) Storage - 10% to 90% (Non-Condensing)  
**ALTITUDE:** MSL to 15,000 Ft  
**DC INPUT POWER:** 12Vdc at 12 Amps Maximum  
**CUSTOMER REFERENCE:** 748-2010-001



PIN#	SIGNAL NAME	DESCRIPTION
1	+5V (VS3)	Power
2	+3.3V (VS3)	Power
3	PwrRtn	Ground
4	+12V (VS1)	Power
5	+12V (VS1)	Power
6	+12V (VS1)	Power
7	+12V (VS1)	Power
8	+12V (VS1)	Power
9	+12V (VS1)	Power
10	P51V	Power
11	-	-
12	-	-
13	-	-
14	+12V (VS1)	Power
15	+12V (VS1)	Power
16	-	-
17	-	-
18	PwrRtn	Ground
19	PwrRtn	Ground
20	PwrRtn	Ground
21	PwrRtn	Ground
22	PwrRtn	Ground
23	PwrRtn	Ground
24	PwrRtn	Ground
25	PwrRtn	Ground
26	PwrRtn	Ground

PIN#	SIGNAL NAME	DESCRIPTION
1	SUM_MOD_GATE_L	DISCRETE
2	SlsLogicRtn	GND
3	DE_AMP_SER_DATA	SPI (RS-232 Rx)
4	AMP_INTERLOCK	DISCRETE
5	GROUND	GROUND
6	SumLogicRtn	GROUND
7	SLS_MOD_GATE_L	DISCRETE
8	AMP_DE_SER_DATA	SPI (RS-232 Tx)
9	GROUND	GROUND
10	SLS_FWD_PWR	ANALOG
11	SUM_TR_SW_L	DISCRETE
12	SLS_TR_SW_L	DISCRETE
13	SerDataRtn	GROUND
14	SUM_FWD_PWR	ANALOG
15	-	-

REF DES	DESCRIPTION	CONNECTOR TYPE
J3	SUM RF INPUT	SMA Female
J4	SUM ANTENNA PORT	SMA Female
J5	SUM RX RF	SMA Female
J6	TEST RF INPUT	SMA Female
J14	TEST RF OUTPUT	SMA Female
J8	SLS RF INPUT	SMA Female
J9	SLS ANTENNA PORT	SMA Female
J10	SLS RX RF	SMA Female

2) WORKMANSHIP IN ACCORDANCE WITH IPC-A-610, CLASS 3  
 1) INTERPRET DRAWING PER MIL-STD-100 AND ANSI Y14.5 1982 (AR).

**NOTES: UNLESS OTHERWISE SPECIFIED:**

APPLICATION	PA1105
900-50440	PA1105
NEXT ASSEMBLY	USED ON

APPROVALS	DATE
TONY T	8/24/2016
TT	8/24/2016
TT	8/24/2016
TT	8/24/2016
AM	8/24/2016
DH	8/24/2016

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS ± 1/64 DECIMALS ± .005 ANGLES ± 0.30° HOLES ± .005 MATERIAL MACHINED FINISH: 32 RMS REMOVE BURRS .005 MAX

**WV Communications** 1125 A Business Center Circle Newbury Park, CA

**POWER AMPLIFIER PULSED DUAL L-BAND W / TR SWITCH ASSY MODEL: PA1105**

SIZE: D CAGE CODE: 1GFQ7 DWG. NO.: 050-51005 REV: H

SCALE: NONE Model No. PA1105 SHEET 1 OF 1

050-51005