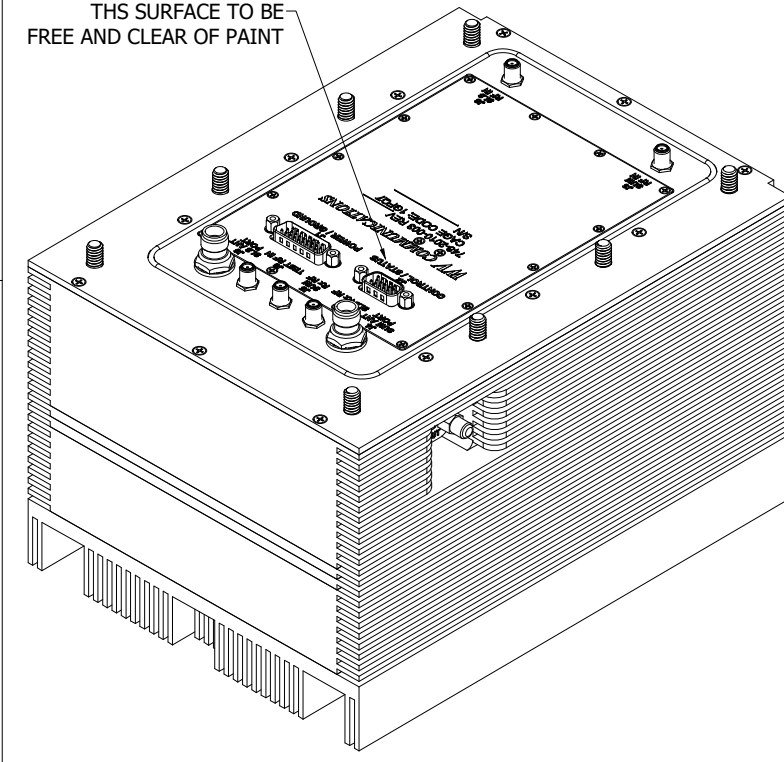
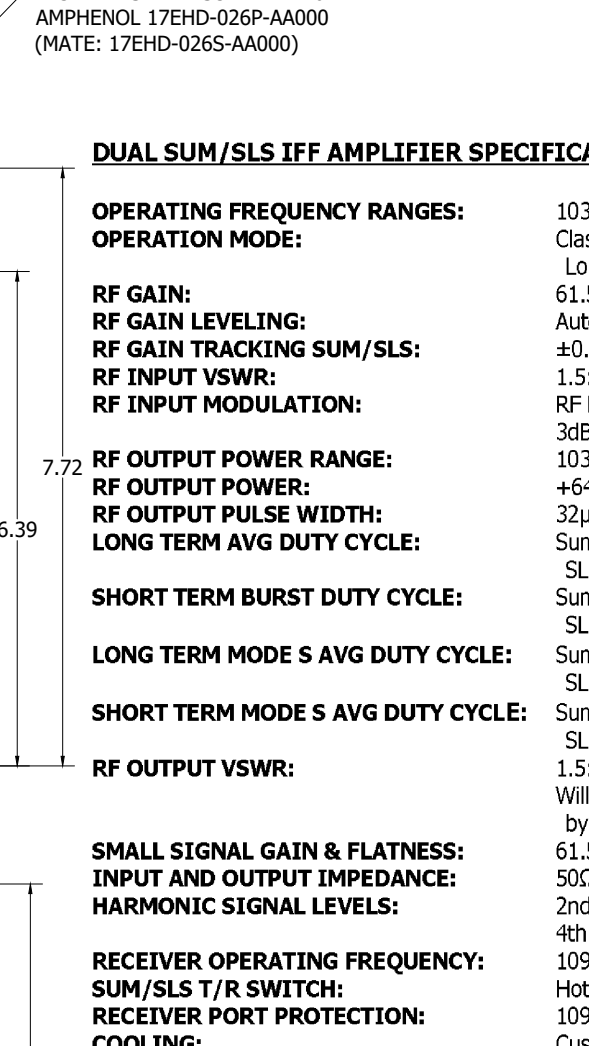
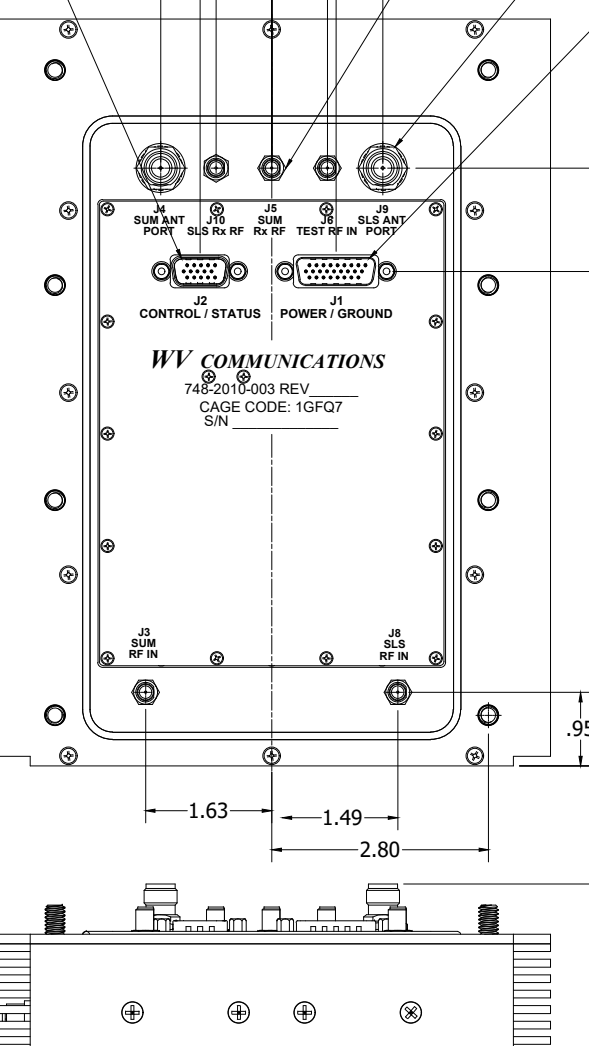
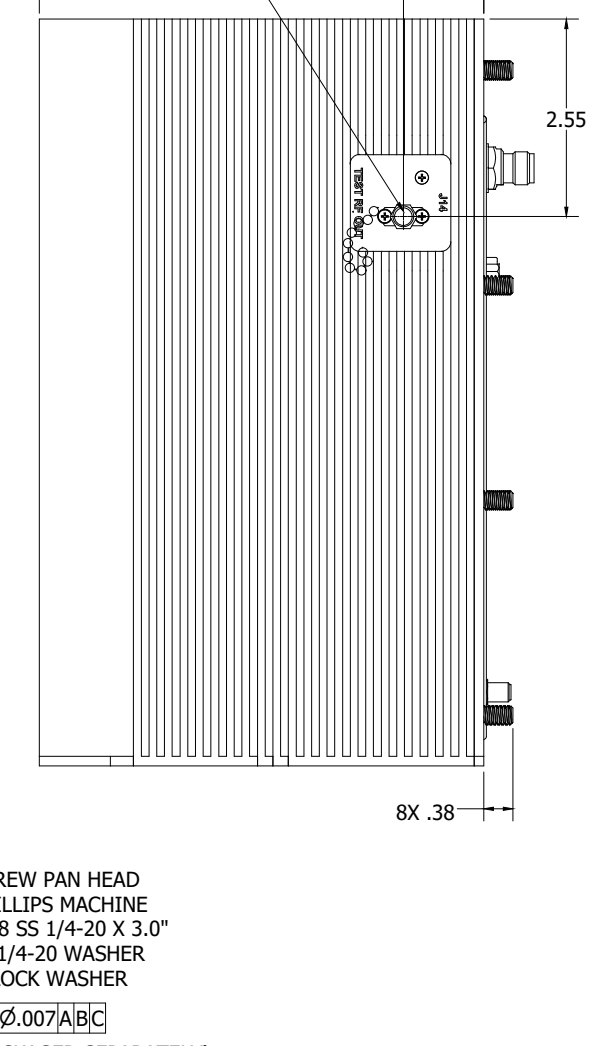
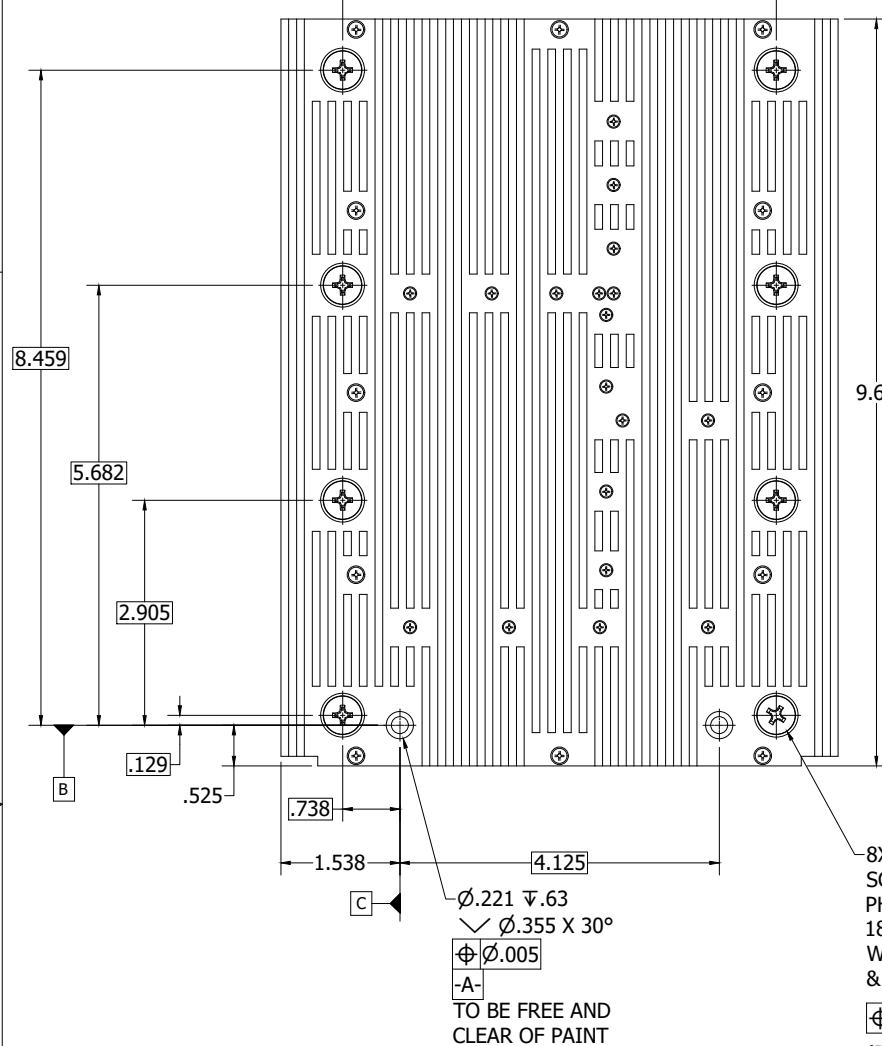


**** PROPRIETARY DATA ****
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| REVISIONS | | | | |
|-----------|-----|---|------------|----------|
| ZONE | REV | DESCRIPTION | DATE | APPROVED |
| | A | RELEASED | 2/19/2018 | TT |
| | B | CORRECTED OUTLINE DIMENSIONS | 11/12/2020 | JA/DB |
| D6 | C | (SIDE VIEW) IS:4.63 WAS:4.43 | 02/22/2021 | TT/DB |
| B3 | D | (END VIEW) IS: (5.27) WAS: (5.07) | 02/25/2021 | TT/DB |
| B3 | E | ADDED HSK CVR (END VIEW) IS: (6.39) WAS: (5.27) | 03/26/2021 | TT/DB |



| J1 POWER / GROUND | | |
|-------------------|-------------|-------------|
| PIN# | SIGNAL NAME | DESCRIPTION |
| 1 | +5V (VS3) | Power in |
| 2 | +3.3V (VS3) | Power in |
| 3 | PwrRtn | Ground |
| 4 | +12V (VS1) | Power in |
| 5 | +12V (VS1) | Power in |
| 6 | +12V (VS1) | Power in |
| 7 | +12V (VS1) | Power in |
| 8 | +12V (VS1) | Power in |
| 9 | +12V (VS1) | Power in |
| 10 | P51V | Power out |
| 11 | - | - |
| 12 | - | - |
| 13 | - | - |
| 14 | +12V (VS1) | Power in |
| 15 | +12V (VS1) | Power in |
| 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 |

| J2 - CONTROL / STATUS | | |
|-----------------------|-----------------|-----------------|
| 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 | - | - |

| SMA CONNECTOR TABLE | | |
|---------------------|------------------|----------------|
| REF DES | DESCRIPTION | CONNECTOR TYPE |
| J3 | SUM RF INPUT | SMA Female |
| J4 | SUM ANTENNA PORT | TNC 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 | TNC Female |
| J10 | SLS RX RF | SMA Female |

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: 61.5±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 +44.5 to +64.5dBm Minimum @P1dB Pt +64.5dBm Minimum at 2.1% 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)
 Will operate into 10:1 VSWR without damage protected by output Isolator
SMALL SIGNAL GAIN & FLATNESS: 61.5±0.5dB Maximum into 1.05:1 VSWR
INPUT AND OUTPUT IMPEDANCE: 50Ω Nominal
HARMONIC SIGNAL LEVELS: 2nd -80dBc, 3rd -80dBc Maximum
 4th through 12th -100dBc 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 finned surfaces
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: -40 to +65°C
 Storage: -55 to +85°C
RELATIVE HUMIDITY
 Storage - 10% to 95% (Non-Condensing)
ALTITUDE: MSL to 50,000 Ft
DC INPUT POWER: 12Vdc at 40 Amps Maximum
CUSTOMER REFERENCE: 748-2010-003

- 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:

| | | | | |
|--|------------------|--|---|--|
| UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS DECIMALS ANGLES HOLES ±.104 .XX±.01 .XX±.005 ±.030 XXX±.003 XXX±.001 | | APPROVALS | DATE | WV Communications 1125 A Business Center Circle Newbury Park, CA |
| MACHINED FINISH: 32 RMS REMOVE BURRS .005 MAX | | DRAWN: TONY T. CHECKED: TT MECH ENGR: TT ELEC ENGR: TT PRODUCTION: AM Q.A: SG | 2/19/2018 2/19/2018 2/19/2018 2/19/2018 2/19/2018 | |
| MATERIAL: - | | 900-50460 PA1123 NEXT ASSEMBLY USED ON | | 2800W DUAL L-BAND PULSED POWER AMPLIFIER AND TR SWITCH ASSEMBLY MODEL: PA1123 |
| FINISH: - | | APPLICATION: DO NOT SCALE DRAWING | | |
| SIZE: D | CAGE CODE: 1GFQ7 | DWG. NO: 050-51032 | REV: E | SCALE: NONE Model No: PA1105-001 SHEET: 1 OF 1 |

050-51032