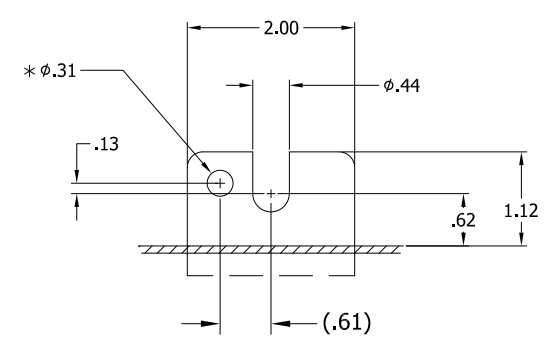
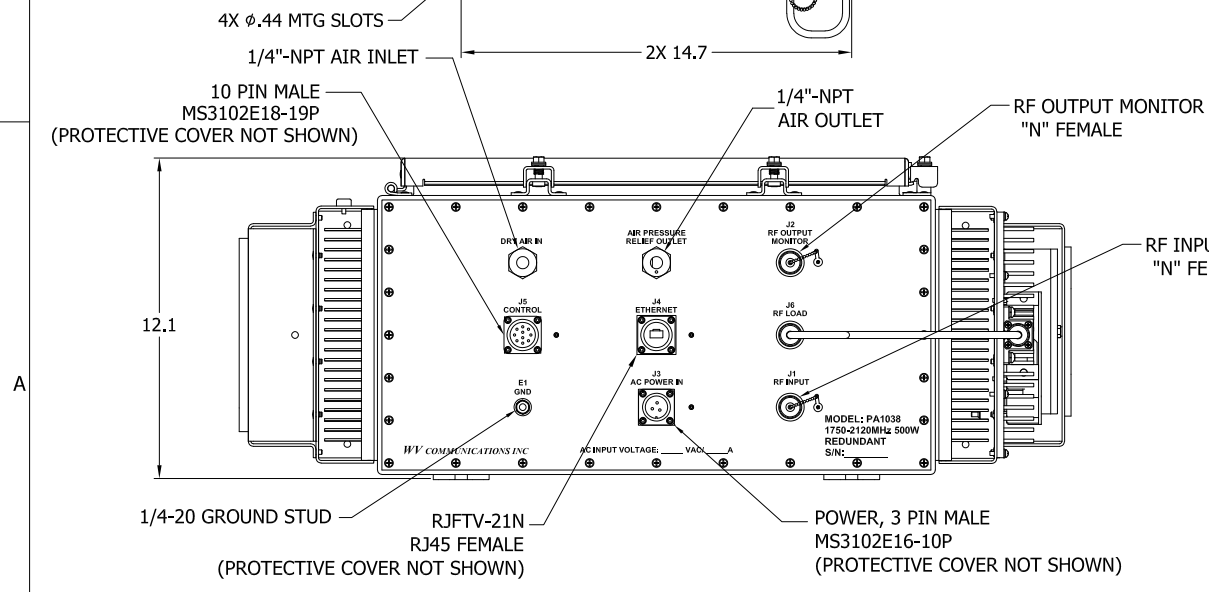
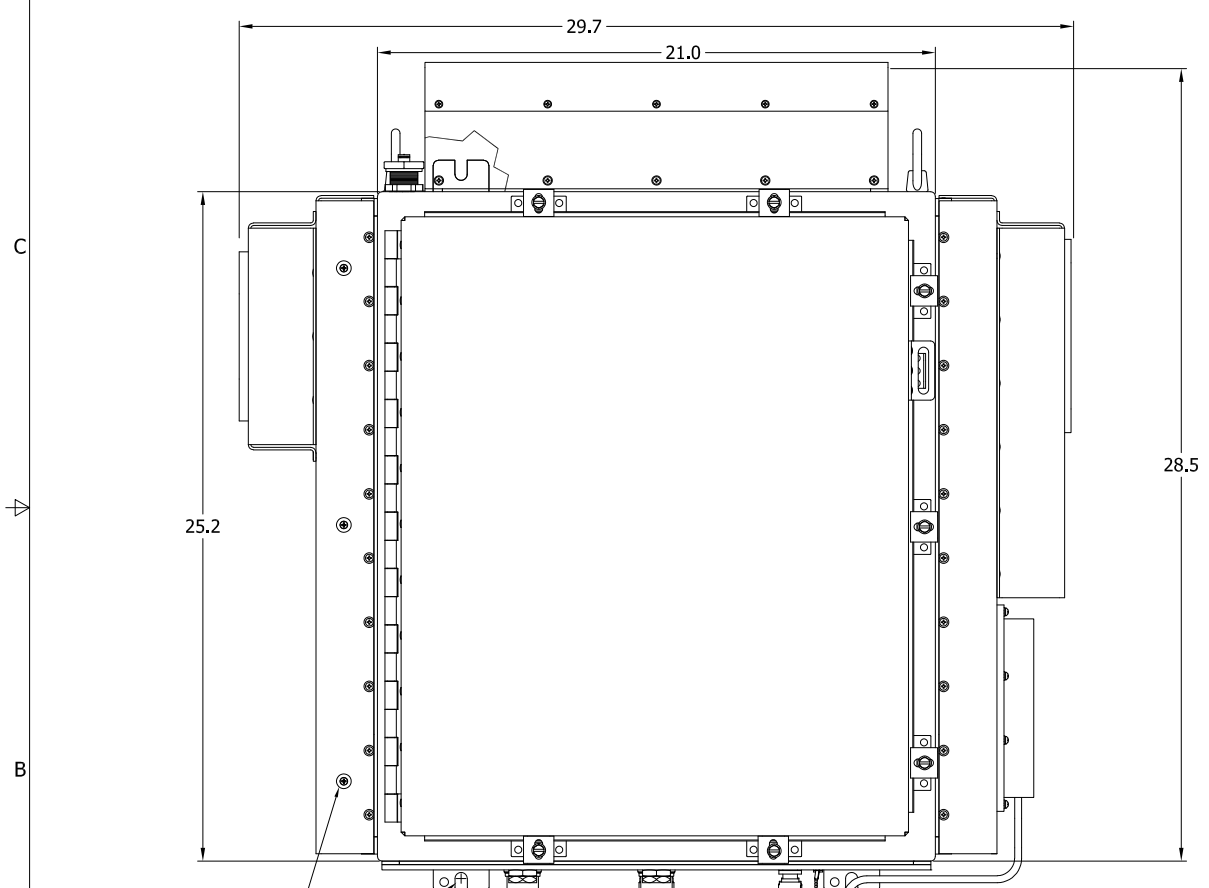
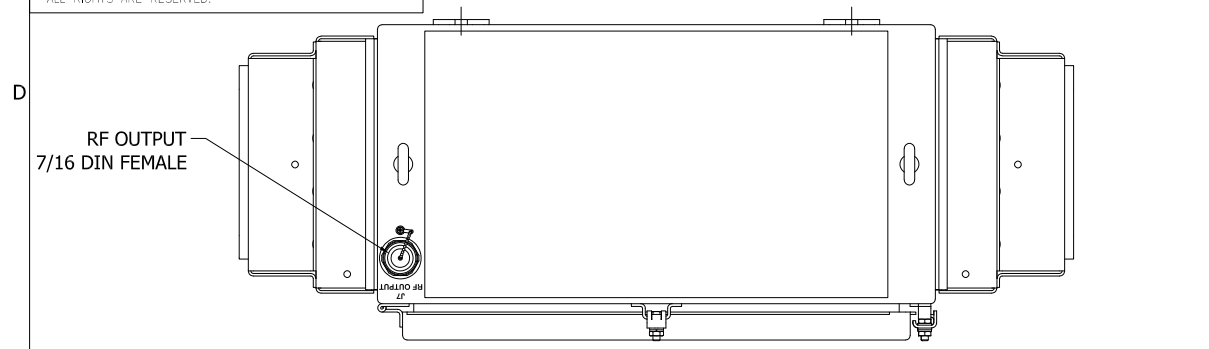


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ZONE		REV	DESCRIPTION	DATE	APPROVED
A			SEE SHEET 1	1/24/2019	JT

**RF OPERATING FREQUENCY RANGE:** 1750-2120MHz  
**RF OUTPUT POWER:** 500W Redundant (+57dBm) Minimum at P1dB Compression Point  
**SMALL SIGNAL GAIN:** 70dB Minimum at P1dB Compression point  
**GAIN STABILITY:** ±1.0dB Maximum from 0 to +50°C  
 ±0.25dB Maximum over 24 Hrs at fixed input and within 10°C Range in the operating temp range  
**GAIN SLOPE:** ±0.05dB/MHz Maximum over any 10MHz Range in the Band into 1.25:1 Load VSWR  
**GAIN OVER FREQUENCY FLATNESS:** 1.5dB p-p Maximum over RF Range, 0.5dB p-p/MHz Maximum over any 10MHz Range in the Band into 1.25:1 Load VSWR  
**LOAD VSWR:** Protected to operate into any Load Mismatch & Phase angle without Damage  
 -13dBm Nominal  
**RF INPUT POWER:** +3dBm Maximum  
**RF INPUT POWER W/O DAMAGE:** 0 to 30dB in 0.1dB Steps  
**RF ATTENUATION RANGE:** 50Ω Nominal  
**INPUT AND OUTPUT IMPEDANCE:** 1.3:1 Maximum (Ref 50Ω)  
**NOISE FIGURE:** 10dB Typical  
**RESIDUAL AM NOISE:** -45dBc/0-10KHz, -78dBc at 500kHz, -80dBc over 0.5-1MHz  
**TWO TONE INTERMODULATION:** -25dBc Maximum @ 3dB backoff from P1dB Comp Pt.  
 -29dBc Maximum @ 7dB backoff from P1dB Comp Pt.  
**HARMONIC SIGNAL LEVELS:** -60dBc Maximum  
**SPURIOUS SIGNAL LEVELS:** -90dBc over 7.6-8.5GHz  
 -50dBc ±2dB Maximum  
**RF MONITOR OUTPUT PORT:** Linear: 0.02ns/MHz Maximum  
 Parabolic: 0.003ns/MHz<sup>2</sup> Maximum  
 Ripple: 1.0ns p-p Maximum  
**AM/PM CONVERSION:** 2.5°/dB Maximum @ P1dB  
**OPERATION MODES:** Linear (VVA), Auto Level Control (ALC)  
**STANDARD FEATURES:** Amplifier STANDBY/ONLINE, Mute Power Units in dBm or Watts, Power Adjustment, Output Thermal Overload/Shutdown, FWD/REF  
**INDICATORS & ALARMS:** RF Output Power, Power Supply Voltage & Current, RF Power Module(s) Status/ Fault, Muting  
 Operating: -40 to +55°C  
 Non-Operating: -20 to +85°C  
**TEMPERATURE RANGES:** Via Internal Color Touchscreen LCD  
**LOCAL CONTROL:** Ethernet UDP/IP /RS-232 (both)  
**REMOTE CONTROL INTERFACE:** Via J2 PINS A&B  
**TX INHIBIT:** 24Vdc - Amplifier On  
 0Vdc - Amplifier Off  
**COOLING REQUIRED:** Via Built-In Forced Air Cooling  
**AMPLIFIER PROTECTION:** Over temperature, VSWR & Overdrive  
**AC INPUT POWER:** 230±10%VAC, 47-63 Hz, Single Phase, Single Amplifier at 2,200W Maximum  
 Dual Amplifier Operation at 3,400W (AC Powers Including 400W Heater)  
**CONNECTORS:**  
**RF Input, Output & Sample:** RF input, RF Output & Sample N-type Female  
**Interface (I/O):** 10-Pin MS-type RS-232/Control (mate provided)  
 RJ45 Ethernet, RFJTV21  
 3-Pin MS-type (mate provided)  
**ENCLOSURE:** Water proof with Positive Pressure air inlet, 1PSI Safety relief valve  
**Weight:** 120Lbs Maximum  
**Size:** 29.7"X28.5"X11.50"  
**PAINT:** Aquamet 100 White



J3 - AC POWER CONNECTOR	
CONN	DESCRIPTION
J3-A	230VAC LINE
J3-B	230VAC NEUTRAL
J3-C	SAFETY GROUND

J5 - TX INHIBIT	
CONN	DESCRIPTION
J5-A	+V
J5-B	-V
J5-C	N/U
J5-D	RS-232 Rx
J5-E	RS-232 Tx
J5-F	RS-232 RTN
J5-G	N/U
J5-H	N/U
J5-I	N/U
J5-J	N/U
J5-K	N/U

EXTERNAL INTERFACE CONNECTORS			
REF DES	DESCRIPTION	CONNECTOR TYPE	CONNECTS TO
J1	RF INPUT	N-F	N-M
J2	RF OUTPUT MONITOR	N-F	N-M
J3	AC POWER IN	MS3102E16-10P	MS3106F16-10S
J4	ETHERNET	RJFTV21N	RJFTV6N
J5	CONTROL	MS3102E18-19P	MS3102F18-19S
J6	RF LOAD	N-F	N-F

APPROVALS	DATE
TONY T	1/24/2019
TT	1/24/2019
TT	1/24/2019
JT	1/24/2019
AM	1/24/2019
SG	1/24/2019

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

**AMPLIFIER SSPA OUTDOOR**  
 1750-2120MHz 500W REDUNDANT  
 MODEL: PA1038

SIZE	CAGE CODE	DWG. NO.	REV
D	1GFQ7	050-51071	A
SCALE	NONE	SHEET	1 OF 1

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. TOLERANCES ARE:  
 FRACTIONS DECIMALS ANGLES HOLES  
 ± 1/64 ± 0.01 ± 0.30 ± 0.015  
 .XX±.01 .XXX±.005 .XXX°.001  
 MACHINED FINISH: 32 RMS REMOVE BURRS .005 MAX.  
 MATERIAL  
 FINISH  
 APPLICATION: DO NOT SCALE DRAWING

DWG. NO. 050-51071