



Model 3091A Outdoor Enclosure for L-Band Links using the 2991T/R

EMCORE's Model 3091A Outdoor Enclosure (ODU) provides power and environmental protection for up to four 2991 transmitters or receivers. With a weather-tight seal and all the necessary internal connections and mounting hardware, these ODU's may be placed directly at the antenna to provide greater flexibility in design.

Applications

- TVRO
- Broadcast
- Earth Stations
- Headends
- VSAT
- GPS

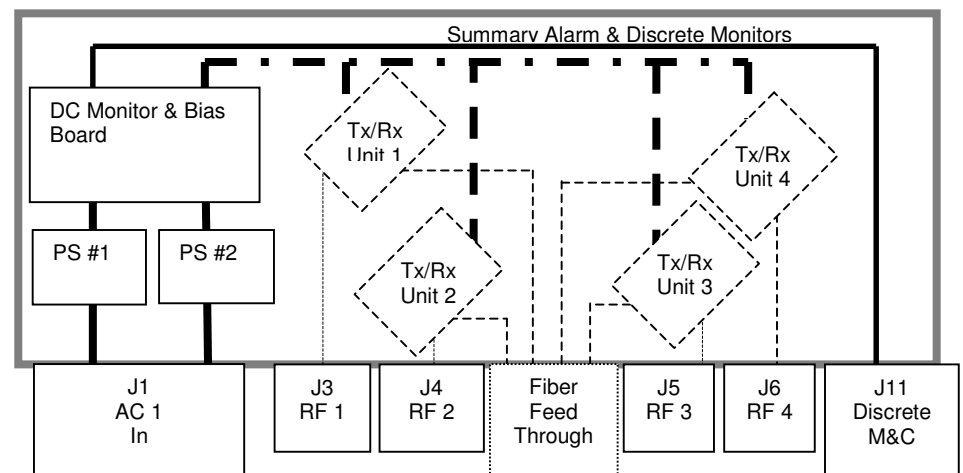
Features

- Weather Sealed
- Summary Alarm
- Redundant Power Supplies
- AC input of 95 to 264 VAC
- LNB Power
- Hot-swappable PS, Tx, & Rx
- Modular, Field-configurable
- Lightning Protected RF
- Discrete M&C Interface
- Local RS-232 Interface

Two AC to DC power supplies drive the four transmitters or receivers and provide enough additional current for four LNB's. Further, these power supplies are redundant, hot swappable and monitored with a summary alarm, so if one fails the facility staff can replace it and still maintain 100% signal availability. The individual transmitters and receivers also are hot swappable, thus can be replaced or reconfigured without upsetting any of the other RF paths.

Performance Highlights

	Min	Typical	Max	Units
AC Input	95	--	240	VAC
LNB Power, total for all outputs	--	24	--	V
	--	--	1.2	A
Ambient Air Temperature	-30	--	50	°C



Environmental

- Ambient outside air temperature: -30 to 50°C
- Storage temperature: -40°C to +85°C
- Start Up Temperature: 0°C min
- Humidity, non-condensing: 5 to 95%
- Absolute Maximum Rating (damage may occur beyond these limits) < -30°C and > +70°C

Electrical

AC Power Input (Connector J1)

Compatible with 0.5 inch cable diameters and styles.

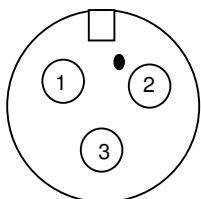
Parameters	Min	Typ	Max	Unit
AC Voltage	95	--	240	VAC
AC Current	--	--	2	Amps

Pin	Function
1	Line
2	Neutral
3	Ground

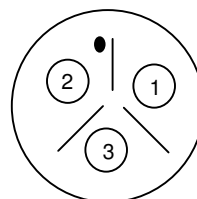
Circuit Breaker Switch: 5 amp trigger

Mating Connector for J1

Face View (Mating Side)



Rear View (Solder Side)



Controls and Monitor (J11)

Pin	Function
1	Ground
2	Summary Alarm
3	Summary Alarm
4	Power Supply – A
5	Power Supply – A
6	Power Supply – B
7	Power Supply – B
8	Unit 1
9	Unit 1
10	Unit 2
11	Unit 2
12	Unit 3
13	Unit 3
14	Unit 4
15	Unit 4
16	No Connect

- Relays are all normally closed.
- Relays open for alarm condition or lack of power.
- Relays can pass 2 Amps.

LEDs (Inside unit)

RF / Opt Pwr Unit 1
RF / Opt Pwr Unit 2
RF / Opt Pwr Unit 3
RF / Opt Pwr Unit 4
Summary Alarm
Door Open
Pwr Sply A
Pwr Sply B

RF / Opt Power- Unit 1, 2, 3 or 4

- Green = OK
- Red = Fault

For Transmitter: RF / Opt LED indicates “Low RF Power”.

For Receiver: RF / Opt LED indicates “Low Optical Power”.

Switches

Mechanical switches S1 – S8 allow the user to select if 2991 is present & if Tx or Rx.

Transmitter and Receiver equipment

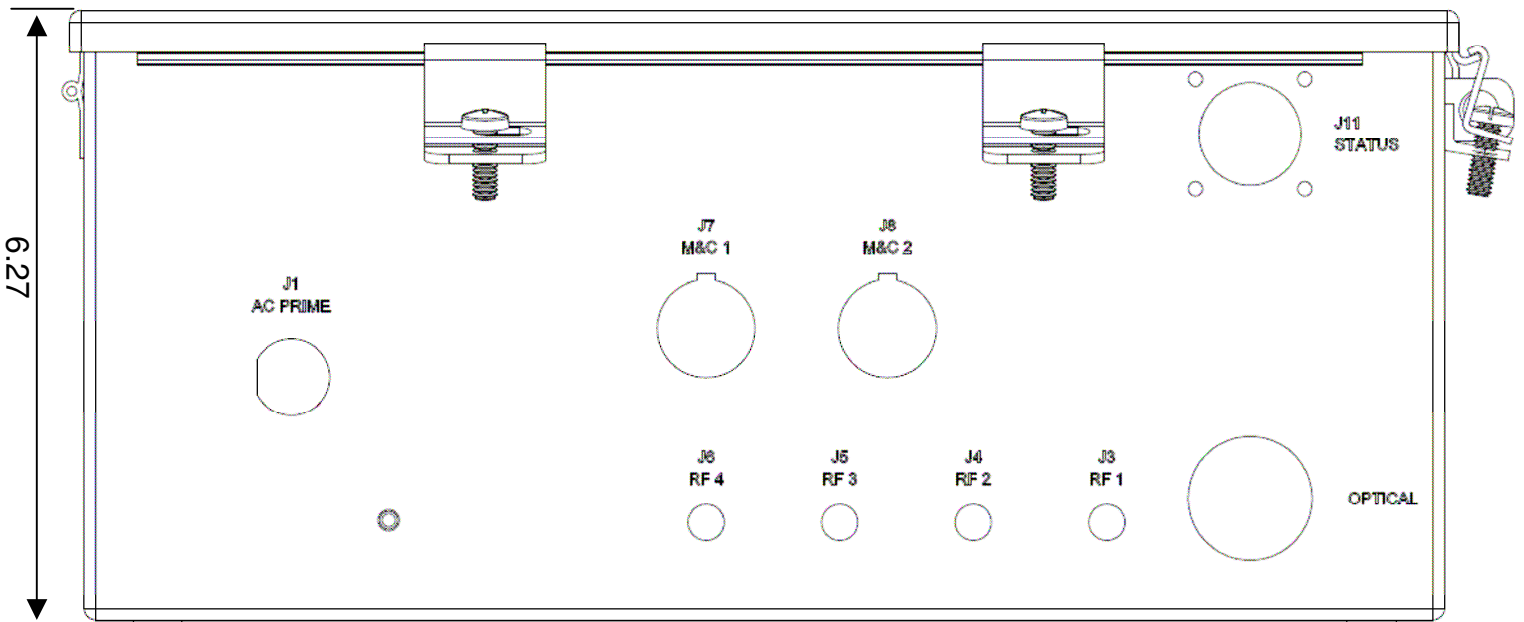
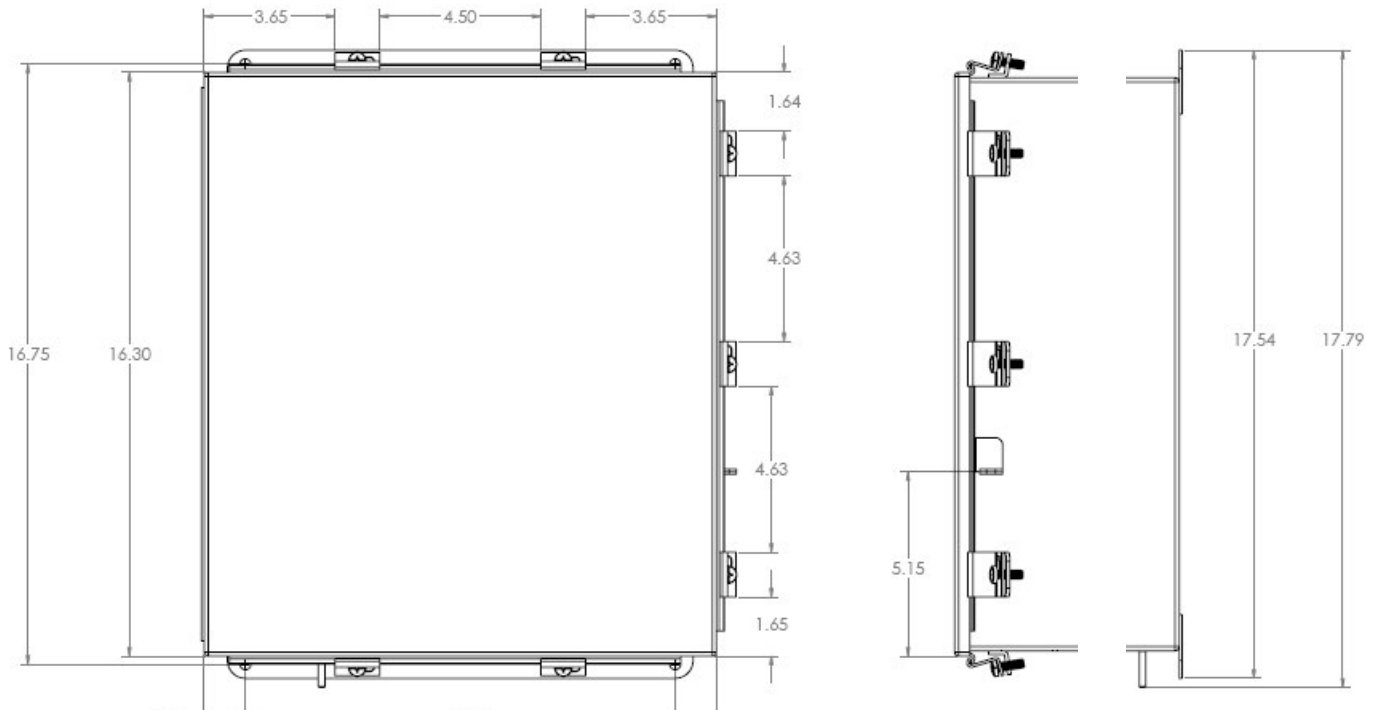
The 2991 equipment is ordered separately and can either be factory or field installed.

Transmitter Model Number	Description
2991TL-F7-SA1303	Tx, 75Ω Type “F”, Low Gain, mounting plate, coaxial cable, lightning protector and dc harness
2991TS-F7-SA1303	Tx, 75Ω Type “F”, Standard Gain, mounting plate, coaxial cable, lightning protector and dc harness

Receiver Model Number	Description
2991R-F7-SA	Rx, 75Ω Type “F”, Rx mounting plate, coaxial cable, lightning protector and dc harness

Additional Parts	Description
3091PS-24	+24 VDC Power Supply, Mounting Bracket, AC Harness, DC Harness, Thermal Pad

Mechanical Outline Drawing



Regulatory: At the time of this datasheet revision date Dec.27 2007, the 3091 has not been confirmed to be compliant with CE nor RoHS.

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