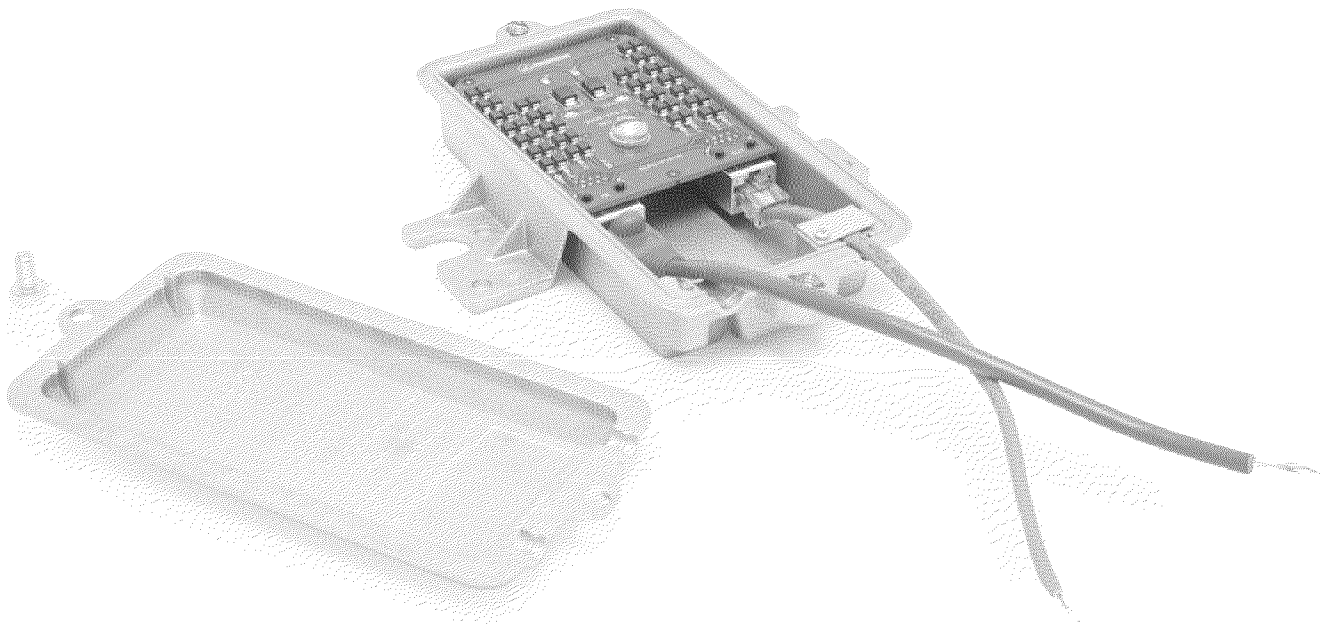



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REVISIONS

LTR	DESCRIPTION	ECO NUM.	DATE	APPROVED
A	ORIGINAL RELEASE	DD19625	12/22/08	MLH
B	UPDATE FOR CE MARK	8824	5/10/10	MTH
C	UPDATE TEXT SHEET 3 of 3	8899	5/20/10	DWR
D	UPDATE TEXT ON SHEET 2	9042	7/29/10	DWR



MATERIAL:	DRAWN: EHN	DATE 10/21/08	 Transtector Systems, Inc.			
	CHECKED: DW	12/22/08				
	ENGR. APPD: MLH	12/22/08				
	PROJ. APPD: DW	12/22/08				
	APPROVED:		TITLE: Specification: ALPU PTP-M			
NOTICE: THE INFORMATION AND DESIGN CONTAINED HEREIN IS THE PROPERTY OF TRANSTECTOR SYSTEMS. WHO RESERVES ALL RIGHTS THERETO			SIZE A	CAGE 30992	DRAWING NUMBER 1400-616-2	REV D
			SCALE = N/A	PAGE 1 OF 3		

SmartLine SPD for Fixed Point to Point Radio Networks

SmartLine PTP single unit ALPU-PTP-M Lightning Protection Unit part number 1101-959

Optional Pole Mount single unit hardware kit part number 1000-1164

INTRODUCTION: The Transtector ALPU-PTP-M is a solid state high-current high-speed data protection system ideal for 10/1000BT Gigabit communication networks. The ALPU-PTP-M is compatible for Motorola PTP Radios. When considering the need for lightning protection equipment, most fixed point to point radio manufacturers require the installation to include lightning protection equipment in accordance with their warranty and installation recommendations. A typical installation should include two Lightning Protection Units, one installed on the wall, tower or mast adjacent to the radio and one installed at the cable entry point of the building in which the network resides. To minimize the possibility of lightning damage, it is recommended that each PTP radio be fitted with an ALPU-PTP-M to protect from damage and the associated costs of replacing damaged radios and other connected equipment.

1. **GENERAL DESCRIPTION:** The Transtector ALPU-PTP-M is ideal for protecting high speed 10/1000BT communications networks. The protection circuits utilize silicon avalanche diode technology. The protection circuit board is housed in an aluminum enclosure. The enclosure is an outdoor qualified NEMA 3R type with versatile mounting flanges. The ALPU-PTP-M features RJ45 protection circuits for gigabit Ethernet data (pins 1,2 & 3,6 & 4,5 & 7,8). The unit is intended to be wall mounted with an optional bracket available to allow a wide range of pole mount configurations. A dedicated ground point on the housing must be bonded to the nearest grounding system (or Master Ground bar) for proper surge protection functionality. The system wiring is installed with RJ-45 type connectors that can install directly into the chassis without having to cut or splice or route through awkward strain relief holes. The enclosure includes a built in cable retention feature for improved cable management using screw down clamps. In the unlikely event of surge protection self sacrifice, the protection elements will fail short to disrupt communication.
2. **ELECTRICAL 1000Base-T Gigabit Ethernet Protector:**

2.1. Connector Style	RJ45 Cat5 shielded 100 ohm
2.2. Data Rate	1000 Mb/s
2.3. Maximum Continuous Operating Voltage	92 Vpeak
2.4. Protected Pins	(1,2) (3,6) (4,5) & (7,8) pass through
2.5. Impedance	85 to 115 ohms
2.6. Surge Suppression	134 Vpeak @ 100 A, 10/1000 μ s
2.7. Suppression Response Time	< 5 ns
3. **ENVIRONMENTAL:**

3.1. Operating/Storage Temperature	-40°C to +75°C
3.2. Relative Humidity	95% (non-condensing)
4. **MECHANICAL:**

4.1. Weight	0.8 lbs (0.36 kg)
4.2. Product Dimensions	As Shown in Figure 1
4.3. Product Material	Die-Cast Aluminum
5. **APPLICABLE INDUSTRY STANDARDS:**

5.1. Bonding and Grounding	NEC 800.100 and 830.100
5.2. Surge Suppression	GR-1089-2006
5.3. 10/100BT (Ethernet), 1000BT (Gigabit Ethernet) Communication Protocol	IEEE 802.3
5.4. Power over Ethernet Protocol	IEEE 802.3af
5.5. CE Mark Compliant	



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6. INSTALLATION: The ALPU PTP-M is intended to be installed indoors or outdoors, on wall or pole mount applications. The unit features mounting feet on the sides that mount onto 4" center-to-center holes with #10 sized hardware. The mount foot also adapts to 4" diameter pole mounting kits with a 4.5" center-to-center holes and larger hardware. Refer to Figure 1 for mechanical requirements and connector locations. The optimum ground connection on the metal enclosure unit at the mounting flange on either side is shown in Figure 1. Use minimum 8 AWG wire for a ground reference attachment. Communications cables with the RJ45 connectors already installed can feed directly into the enclosure. Be sure to install the cables with the un-protected cable installed into the left "IN" jack and the protected equipment cable in the right "OUT" jack. The enclosure features a built in cable retention that grips the cables with a screw down bracket. A pole mount adapter kit (PN 1000-1164) is available to meet installations on a wide range of pole diameters from 2" metal fence poles to 10" diameter utility poles.

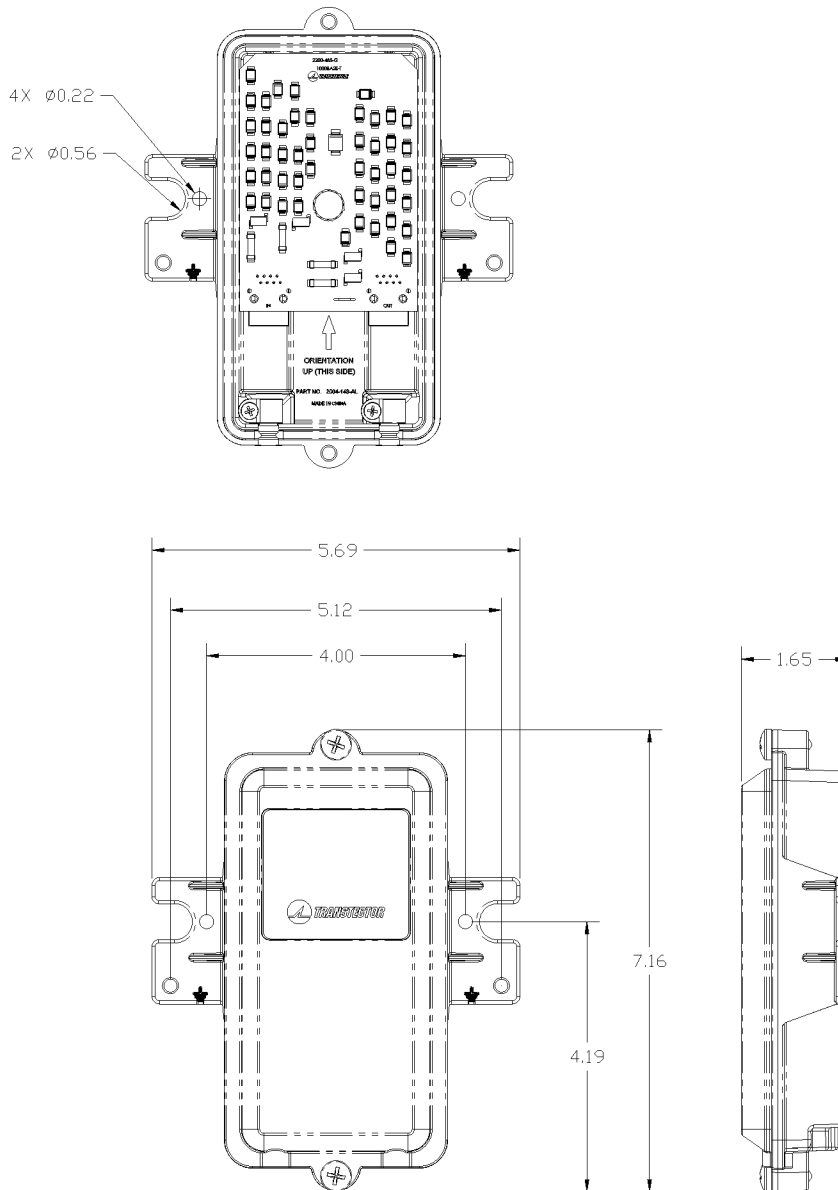


FIGURE 1. Mechanical Outline of Metal Enclosure (drawing in inches)