

# SIGNAL AND SURGE PROTECTION SOLUTIONS Shipped Same-Day





# THE LIGHTNING AND SURGE PROTECTION AUTHORITY



- · Industry leader in reliable RF surge protection, filtering and grounding
- · Decades of experience and solutions deployed worldwide
- · Patented DC block, DC pass, and ultra-low PIM RF filter technologies



- · More than 50 years of surge protection experience
- Market driver in silicon diode, MOV and hybrid surge technologies
- AC, DC, data signal, and EMP surge protection devices and enclosures





# MEETING THE REQUIREMENTS OF TODAY'S NETWORKS

Whether you need same-day shipping for an urgent project, detailed product information on demand, or simply the customer and technical support you expect from a valued partner, PolyPhaser and Transtector are poised to help.



Comprehensive range of products, systems and solutions



Products in stock, and available for same-day shipping



Online purchasing and direct purchasing options



Dedicated customer service and technical support

# DATA SIGNAL SURGE PROTECTION

PRODUCT	DESCRIPTION	FEATURES & BENEFITS	OPTIONS/STANDARDS
	ALPU PoE Series Compact RJ-45 surge protector for point-to- point and point-to-multi- point	<ul> <li>SASD technology</li> <li>Easy installation/RJ-45 connectors</li> <li>Compact design and 1/4-20 ground stud</li> <li>Plastic and aluminum indoor/outdoor enclosures</li> </ul>	Up to GbE and PoE++ protocols     Standards: GR 1089, NEC     800.100 and 830c100, IEEE     802.3af, CE, RoHS compliant,     hazardous location certified
	ALPU Fit & Lite Reliable surge protection for small cell networks, 3G, 4G applications	<ul> <li>Gas tube as well as hybrid SASD technology</li> <li>Ease of installation (corrosion, UV, and salt fog protection – [ALPU Fit]</li> <li>Rugged environmental design</li> </ul>	<ul> <li>GbE, PoE + and GbE, PoE ++ protocols</li> <li>Pole/wall mount</li> <li>Standards: UL 497B, IEC60950, CE and RoHS compliant, IP 65 (Fit), IP 23 (Lite)</li> </ul>
	Thunderbolt Series Bulkhead protection for Ethernet/PoE lines	<ul> <li>High power gas discharge tube (GDT) and TVSS protection in single protector</li> <li>In-line installation</li> <li>Optimized for signal throughput</li> <li>Bulkhead mount</li> </ul>	<ul> <li>10/100 I PoE, GbE and GbE I PoE configurations available</li> <li>Standards: IP67, CE, RoHS</li> </ul>
	DPR Series Surge protection for GbE, PoE, Ethernet rack, wall or DIN rail mount	<ul> <li>Line and load bidirectional protection</li> <li>Unprotected pins bonded to ground</li> <li>Individual modules in plastic housing with DIN rail snap on feature for mounting and grounding</li> </ul>	Up to GbE and PoE++ protocols IRU chassis holds up to 16 modules and is adjustable to fit 19" or 23" racks Standards: GR-1089, NEC 800.100 and 830.100, IEEE 802.3af, ITU703
emmannana.	CPX Rack-mount multi protocol protection	Carrier-grade surge protection     Line and load bidirectional protection     Ease of installation for individual protection modules     Wall or DIN rail mount	<ul> <li>T1E1, 10/100 Ethernet, 10/1000 GbE Ethernet, 10/ 100 PoE, and 48 Vdc power configurations</li> <li>4 port or 16 port chassis</li> <li>Standards: GR-1089 CORE, UL 497A, UL497B, IEEE802.3 ITU703, hazardous location certified models</li> </ul>
	TSJ-USB Series Indoor SPD using SASD technology for PC, WiFi, and Security applications	<ul> <li>Bulkhead USB 1.0, USB 2.0 data protocols</li> <li>Superior silicon avalanche diode technology</li> <li>Data rate 480 MBs</li> <li>72 inch pigtail</li> </ul>	USB A plug contacts     RoHS compliant
	MDPS Series Reliable surge protection for NEMA 4X-rated outdoor enclosure applications	<ul> <li>DPR modules offer surge protection up to GbE and PoE++ protocols</li> <li>Ease of installation for DIN Rail modules</li> <li>Wall   pole mount capabilities</li> <li>Modular enclosure support, up to eight (8) DPR modules (two DPR modules provided with unit)</li> </ul>	Standards: NEC 800.100, 830.100, NEMA 4X enclosure

# COAXIAL RF SURGE PROTECTION

PRODUCT	DESCRIPTION	FEATURES & BENEFITS	OPTIONS/STANDARDS
Tappe of the second of the sec	TSX Series Ultra low PIM RF coaxial protection	<ul> <li>Ultra low PIM RF coaxial protection in DC short and DC pass</li> <li>PolyPhaser's patented SX lightning filter technology</li> <li>Frequency range: 698 MHz to 2.7 GHz</li> </ul>	<ul> <li>4.3-10, N-Type or 7/16" DIN connectors</li> <li>IEC 61000-4-5, CE and RoHS compliant</li> </ul>
	IS-B50 Series DC block protector for two way radio and SCADA applications	<ul> <li>DC block gas tube design</li> <li>Optimized for low insertion loss, low return loss</li> <li>Frequency range between 1.5 MHz-1 GHz</li> </ul>	IEC 61000-4-5, CE and RoHS compliant
	GXZ Series DC pass for tower- top amplifiers, GPS antennas, active antennas and base station entry panels	<ul> <li>PolyPhaser's patented hybrid, multi- stage lightning protection</li> <li>DC Pass surge protector is available in 4 RF bands from DC to 2500 MHz</li> </ul>	IEC 61000-4-5, CE and RoHS compliant
	Rail Filters (RRF) Band pass filter protection for railway applications	Superior in-band RF performance     Integrated surge protection     Allow interoperability with 219.5 MHz and 220 MHz PTC signals	<ul> <li>160, 220, and 450 MHz rail configurations available for way- side and locomotive applications</li> <li>AAR, Section K Part V, Standard S-9401, CE and RoHS compliant</li> </ul>
	GT Series Gas tube lightning protection with superior RF performance	DC pass gas tube protection     High surge current capability, low let-through voltage     Frequency range between DC to 6 GHz	IEC 61000-4-5, CE and RoHS compliant     N and SMA connector options
	VHF Series High-powered public safety, TETRA and UHF, VHF radio application protection	High surge current capability, low let-through voltage     DC block filter design, no DC continuity between center pins     TETRA, UHF, and VHF radio application frequency range	PIM performance available in select units IEC 61000-4-5, CE and RoHS compliant
	SX Series Radio frequency DC blocked filter protector	High surge current capability, low let- through voltage     DC block filter design, no DC continuity between center pins     Elongated female connector allows for mounting through a 1/4" bulkhead or grounding bar     Frequency range 300 MHz to 10 GHz	PIM performance available in select units IEC 61000-4-5, CE and RoHS compliant

# AC SURGE PROTECTION

PRODUCT	DESCRIPTION	FEATURES & BENEFITS	OPTIONS/STANDARDS
- mm - mm	AC Edge Series Rack mounted 120 Vac and 240 Vac distribution panel with dual inputs	<ul> <li>Allows customers standardization of AC power installation and start up</li> <li>Wire from commercial power or UPS breakers</li> <li>Integrated surge protection (5 kA SASD per input)</li> <li>Remote alarm circuits: power and breaker</li> </ul>	<ul> <li>Space saving 2 RU</li> <li>Circuit breaker options: 1, 2, 3, 4, 5, 10, 15 amp</li> <li>Standards: UL 60950 listed, EN 60950 listed</li> </ul>
	IMAX Series Mission-critical AC panel mounted surge protection	<ul> <li>Hybrid silicon diode/thermally protected MOV design</li> <li>Line and load bidirectional protection</li> <li>Field-replaceable suppression modules</li> <li>Visual and remote status monitoring</li> <li>Motorola R-56 approved</li> </ul>	<ul> <li>120/240 split phase silicon/MOV, 120/208 3-phase wye silicon MOV, 120/240 split phase MOV, 120/208 3 phase wye MOV configurations</li> <li>Standards: UL 1449 4th Edition, ANSI/EEE C62.45, IEEE C62.412002 C High</li> </ul>
	PV Series Modular robust surge protection for critical equipment	<ul> <li>Thermally protected MOV technology</li> <li>Audible alarm and disable switch</li> <li>Visual and remote status indication (dry relay contacts) per phase</li> <li>EMI/RFI noise filtering</li> </ul>	<ul> <li>Available with or without disconnect</li> <li>All mode protection-L-N, L-G, N-G and L-L</li> <li>Standards: UL 1449 4th Edition, NEC, IEEE</li> </ul>
	SP Series Protection for Type 1 and Type 2 applications	<ul> <li>MOV technology</li> <li>LED Status indication</li> <li>Quick installation for indoor/outdoor use</li> <li>Compact design and rugged construction</li> </ul>	<ul> <li>120 Vac to 600 Vac configurations</li> <li>Indoor   outdoor options</li> <li>Standards: UL 1449 4th Edition, UL 964, ANSI\IEEE, Type 1 US and Type 2 Canada listed, NEMA 4X, RoHS, NEC 100/285</li> </ul>
	I2R IEP Series Replaceable DIN rail mounted surge protection	<ul> <li>SASD technology</li> <li>Line and load bidirectional protection</li> <li>Field-replaceable suppression module</li> <li>Visual and remote status indication</li> </ul>	<ul> <li>120 Vac configuration available</li> <li>Standards: UL 1449 4th Edition, IEEE C62 41, RoHS compliant, hazardous location certified</li> </ul>
	I2R T125 Series Modular 230 Vac single phase & 3-phase Wye	<ul> <li>Replaceable suppression modules</li> <li>DIN Rail mount</li> <li>High capacity MOV protection</li> </ul>	IEC61643-11 Class I + II     CE, RoHS compliant
	I2R 75K Series Modular single phase, split-phase, three- phase WYE, delta and high-leg delta	<ul> <li>Safe-fail, self-protected</li> <li>Surge capacity 75 kA</li> <li>Additional back up fusing not required</li> <li>Remote status indication</li> </ul>	<ul> <li>UL 1449 4th Edition</li> <li>ANSI/IEEE C62.41.1, C62.41.2, C62.45</li> <li>CE, RoHS compliant</li> <li>MIL-STD-810E</li> </ul>

# DC SURGE PROTECTION

PRODUCT	DESCRIPTION	FEATURES & BENEFITS	OPTIONS/STANDARDS
iiiiiii mini	DC Edge Series Power distribution for scalable and reconfigurable edge network applications	<ul> <li>High current capability</li> <li>Universal voltage</li> <li>Front panel alarm status LED and discrete dry relay contacts</li> <li>Front load TFD housing or circuit breaker</li> <li>Compact 1 RU PDU</li> </ul>	<ul> <li>19" or 23" rack mount</li> <li>Standards: UL 60950, NEBS and RoHS compliant</li> </ul>
	DRDC Series Superior surge protection for DC and low frequency data lines	SASD technology     DIN rail mount with replaceable suppression module, no rewiring required     Screw terminals accept 28-12AWG	<ul> <li>7, 12, 24, 48, 70 Vdc configurations available</li> <li>Hazardous location certified, FM approval Class 1 Division II, CE, ATEX EU Directive 94/9/EC, UL 497B (except DRDC-70)</li> </ul>
	I2R ICP Series Silicon surge protection for DIN rail mount applications	<ul> <li>SASD technology</li> <li>Parallel installation</li> <li>Replaceable suppression module, no rewiring required</li> <li>Visual and remote (dry contact relay) status indication</li> </ul>	<ul> <li>12, 24, 48 Vdc configurations</li> <li>Standards: IEEE C62 41, UL 49AB</li> </ul>
	DRI Series Two pair/four wire protection approved for hazardous locations	<ul> <li>SASD technology</li> <li>Line and load bidirectional protection</li> <li>Plug-in, suppressor modules, DIN rail mount</li> <li>Visual and remote (dry contact relay) status indication</li> </ul>	24,120 Vdc configurations available     FM approval Class 1 Division II, ATEX EU Directive 94/9/EC
	I2R IEP DC Series Silicon surge protection for DIN rail mount applications	SASD technology     Replaceable suppression module     Visual and remote (dry contact relay) status indication	<ul> <li>12, 24, 48 Vdc configurations available</li> <li>Standards: IEC 61643-1, RoHS compliant</li> </ul>
	DCOD Series Silicon surge protection for indoor/ outdoor tower-top antennae applications	<ul> <li>SASD technology</li> <li>Series 25-amp two-port protection</li> <li>Surge and protected wiring terminals</li> <li>Remote status monitor relay contacts</li> </ul>	<ul> <li>24, 48 Vdc configurations</li> <li>2.5kA and 5kA 8/20µs surge withstand configurations available</li> <li>Standards: IEC 61643-11 compliant, CE 6095, NEMA 3R</li> </ul>
	DC Defender 48 Vdc silicon surge protection for indoor/ outdoor tower-top antennae applications	<ul> <li>Series fused, SASD surge protection</li> <li>NEMA 3R enclosure</li> <li>3 mode DC power protection</li> <li>10 AWG wire for 15-amp circuits</li> </ul>	<ul> <li>Panel and pole mount configurations</li> <li>Standards: CE 60950, NEMA 3R, RoHS compliant</li> </ul>

# HEMP TESTED SURGE PROTECTION (HIGH-ALTITUDE ELECTROMAGNETIC PULSE)

# **AC EMP Surge Protection**

PRODUCT	DESCRIPTION	FEATURES & BENEFITS	OPTIONS/STANDARDS
Planer C	APEX IMAX HT Series Engineered for 120/208, 120/240 and 120 Vac applications	Outdoor EMI shielded enclosure     Form C remote alarm contacts     Low VPL at high induced surge current	<ul> <li>UL 1449 4th Edition</li> <li>MIL-STD-188-125 tested</li> <li>Enclosure UL 50 Type 4</li> <li>Silicon and Hybrid options</li> <li>EMP protection level 1, 2, 3</li> </ul>
	E3PA Series Tested to extreme SREMP environment	<ul> <li>Military grade</li> <li>Fail-safe fusing</li> <li>Cabinet options with continuous protection to downstream equipment</li> </ul>	<ul> <li>MIL-STD-188-125 tested</li> <li>Silicon and Hybrid options</li> <li>EMP protection level 1, 2, 3</li> </ul>

# **DC EMP Surge Protection**

PRODUCT	DESCRIPTION	FEATURES & BENEFITS	OPTIONS/STANDARDS
	DCPM HT Series Rugged protector available for 12, 24, 28 and 48 Vdc applications	<ul> <li>Continuous protection to downstream equipment</li> <li>Military grade options</li> <li>Field serviceable</li> </ul>	<ul> <li>Silicon and Fail-Short MOV technology options</li> <li>MIL-STD-188-125 tested</li> <li>EMP protection level 1, 2, 3</li> </ul>

# **Network Signal EMP Surge Protection**

PRODUCT	DESCRIPTION	FEATURES & BENEFITS	OPTIONS/STANDARDS
	ALPU HT and E3PM HT Series Rugged, compact and lightweight data line- EMP surge protection	<ul> <li>Continuous protection to downstream equipment</li> <li>Field serviceable</li> <li>Rugged construction</li> </ul>	<ul> <li>Military grade options</li> <li>MIL-STD-188-125 tested</li> <li>Silicon technology</li> <li>EMP protection level 1, 2, 3</li> </ul>

# **RF EMP Surge Protection**

PRODUCT	DESCRIPTION	FEATURES & BENEFITS	OPTIONS/STANDARDS
	TSX HT Series Outdoor RF protector for 698 MHz to 2.7 GHz	<ul><li>Bulkhead mount</li><li>Line/load bidirectional</li><li>Low let-through energy</li><li>High pass filter</li></ul>	<ul> <li>RoHS, CE, IEC 60950-1AS</li> <li>MIL-STD-188-125 tested</li> <li>EMP protection level 1, 2, 3, 4</li> </ul>
	E3PM HT Series DC pass broadband protector	<ul> <li>Flange or bulkhead mount</li> <li>Low throughput energy</li> <li>N-type connectors</li> <li>DFARS hardware kit</li> </ul>	<ul> <li>RoHS, Buy American Act</li> <li>MIL-STD-188-125 tested</li> <li>EMP protection level 1, 2, 3, 4</li> </ul>

# POWER PROTECTION CABINETS

# **Custom Solutions**

Transtector Systems engineers and manufactures fully integrated power protection cabinets for quick site setup, low lead times and termination of both electrical and communication utility feeds. Configurable options include AC, DC and data line surge protection for indoor and outdoor communication sites with multiple power sources. Global carriers rely on Transtector for custom quality solutions that meet unique environment and network requirements.

# Small Cell

Transtector Systems engineers a full line of reliable, safe and configurable compact cabinet solutions engineered specifically for Small Cell deployments. These cabinets integrate dependable surge suppression, are compact to reduce public visibility, provide several current configurations, and are UL listed to meet industry safety standards.

PRODUCT	DESCRIPTION	FEATURES & BENEFITS	OPTIONS/STANDARDS
	AC Power Distribution Cabinet	<ul> <li>120V or 120/240SP</li> <li>12 field configurable branch breaker positions</li> <li>Service entrance rated</li> <li>Co-location approved</li> </ul>	<ul> <li>UL 67 Listed</li> <li>50A, 60A, 100A or 125A configurations</li> <li>I2R-75K MOV surge protection</li> <li>NEMA 3R</li> <li>Field configurable design supports unique market architecture</li> </ul>
	MiniCab Series	<ul> <li>120/240 and 120 Vac options</li> <li>Single phase</li> <li>Outdoor</li> <li>Wall or pole mounts</li> <li>Compact footprint</li> </ul>	<ul> <li>UL 67 Listed</li> <li>I2R IEP and I2R SA 120-50M surge protection</li> <li>15 A, 20 A, 40 A options</li> </ul>

# Industrial NEMA Enclosures and Accessories

Transtector series of weatherproof UL Listed, NEMA enclosures reliably protect equipment in harsh environments. These enclosures are available in a wide range of configurations, all engineered to house equipment that requires protection and security.

PRODUCT	DESCRIPTION	FEATURES & BENEFITS
	TEF14 Series	<ul> <li>45 enclosure options with 15 accessories</li> <li>Standard 14"x12"x7" footprint</li> <li>UV stabilized polyester reinforced fiberglass construction</li> <li>120 Vac, 240 Vac, and PoE options</li> </ul>
	TEF18 Series	<ul> <li>42 enclosure configurations with 8 accessories</li> <li>Standard 18"x16"x8" footprint</li> <li>UV stabilized polyester reinforced fiberglass construction</li> <li>120 Vac, 240 Vac, PoE and 12 Vdc options</li> </ul>
	TEP14 Series	<ul> <li>17 enclosures and 4 accessories to choose from</li> <li>Available in 14"x10"x6" and 14"x10"x4" sizes</li> <li>ABS Acrylonitrile Butadiene Styrene constructions</li> <li>120 Vac and PoE options</li> </ul>
	TEPC Series	<ul> <li>Over 100 configurations available</li> <li>Polycarbonate construction in grey or black</li> <li>Outdoor IP 24 rated</li> </ul>

# RF Protection - TSX Series

Ultra-low PIM protectors for 698 MHz to 2.5 GHz, available in DC block and DC pass configuration



rPolyPhaser

# RF Protection - GX

DC pass filter protectors ideal for RF applications where DC is required



rPolyPhaser

# Grounding – 5PEEP-M

3 and 8 port earthed entrance panels



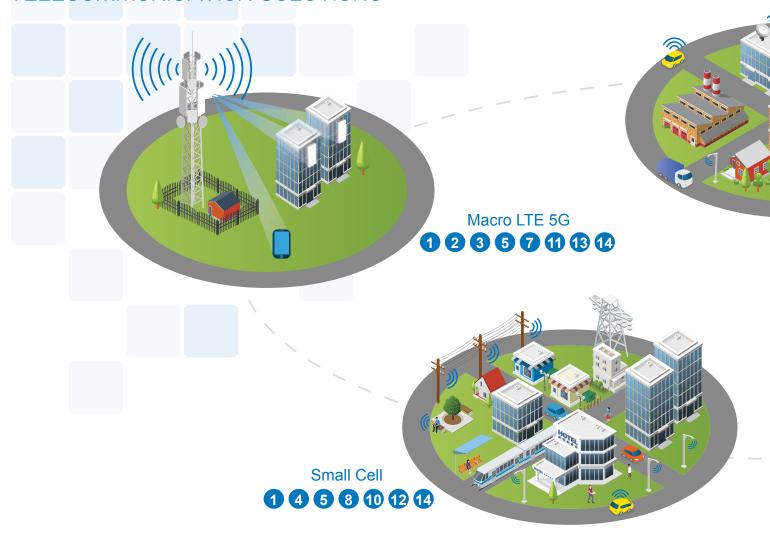
<sub>1</sub>PolyPhaser

# Modular, fail-safe protector with surge capacity of 75 kA

TRANSTECTOR

AC Protection -

# TELECOMMUNICATION SOLUTIONS



### Data Protection - ALPU Fit

Protects GbE. PoE+ and GbE PoE++ networks for indoor and outdoor applications

**TRANSTECTOR** 



# Data Protection - DPR Series

Multiple data rates and PoE applicatoins - T1/ E1, GbE, PoE, PoE+ and PoE++



**TRANSTECTOR** 



# Small Cell Cabinets - SC-2MMA9

UL configurable 60A to 125A co-location approved



# **Industrial Cabin**

Configurable NEMA indoor and outdoor



**TRANSTECTOR** TRANSTECTOR

# **I2R 75K**



# AC Protection - SP

Reliable MOV technology for a variety of voltages from 120 Vac to 600 Vac



TRANSTECTOR



# DC Protection - I2R Series

Outdoor, nondegrading silicion protectoin for DC power supplies up to 25 A

TRANSTECTOR



### **EMP Protection – HEMP**

Military grade AC, DC, Data and RF protectors to sheld from EMP

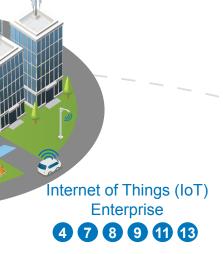


**TRANSTECTOR** 













**Venues** 

124591011213

Contact our sales team at +1 (208) 635-6400 for additional information and specifications on RadioWaves and KP Performance Antennas

# ets – NEMA

enclosures for applications



# KP Omni KPPA-3GHz - DPOMA

3 GHz 13 dBi dual polarized H/V Omni antenna

PERFORMANCE ANTENNAS



# KP Sector KPP-3SX4-65

Proline Sector Antenna engineered to delivery high stable gain over wide bandwidths



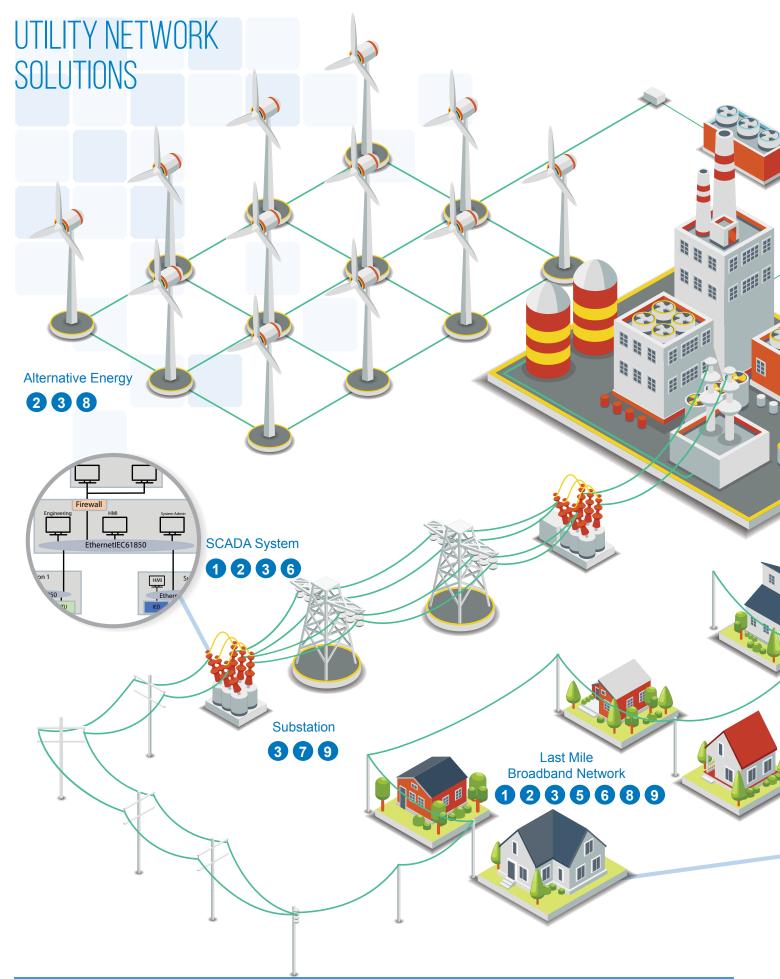
# RWI - HPLP2-80

High performance parabolic reflector antennas engineered to ETSI class 2/3















Contact us at +1 (208) 635-6400 or email protection@transtector.com to schedule a site audit or discuss private training courses.

**Power Plant** 









**Data Center** 





**M** Smart Meter

**AMI-Smart Metering** 





# RF Protection - DGXZ Series

DC Pass arrestor engineered for 800 MHZ to 2500 MHz



# DC Protection - DC Defender

Superior SASD surge technology for 48 Vdc outdoor applications



# DC Protection - I2R IEP Series

Modular DIN Rail 24 & 48 Vdc single mode SASD protection



# Data Line - CPX Series

Modular, Ethernet and GbE surge protector scalable to 16 ports



# Data Line - ALPU Series

Protects GbE, PoE+ and GbE, PoE++ networks, for indoor and outdoor applications



# Data Line - DPR Series

Multi-protocol equipment protector offers GT, SASD and hybrid technology



# EMP-HEMP Tested -**APEX IMAX HT Series**

AC EMP surge protection options for 120/208 120/240 and 120 Vac applications



# AC Protection - SP Plus

Reliable MOV technology supporting voltages from 120 Vac to 600 Vac





### **NEMA Enclosures**

Configurable indoor and outdoor NEMA enclosures and accessories



# AC Protection - SP Series

Reliable MOV technology for a variety of voltages from 120 Vac to 600 Vac







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### RF Protection - GX Series

DC Pass filter protectors ideal for RF applications where DC is required



# DC Protection - SXRR

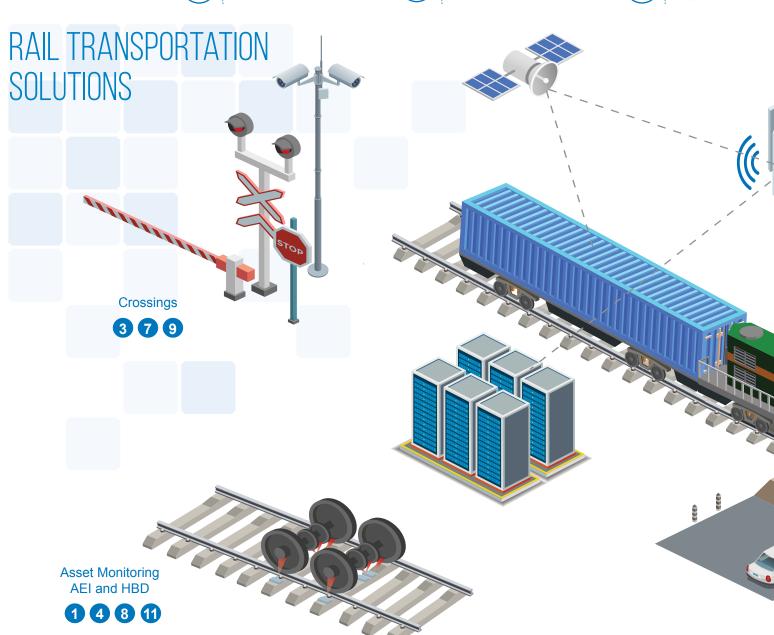
High performance, dual stack, silicon, primary railroad protection with status indication

ı2oly2haser



silicon, DC data signal protector with LED indicator

TRANSTECTOR



# RF Protection - TSX-NFF

DC block, ultra-low PIM, bidirectional protector



rPolyPhaser

# Data Line - ALPU

Protects GbE, PoE+ and GbE, PoE++ networks. for indoor and outdoor applications





# Backhaul Antenna

Parabolic antennas provide a variety of performance solutions including SP, HP and SHP

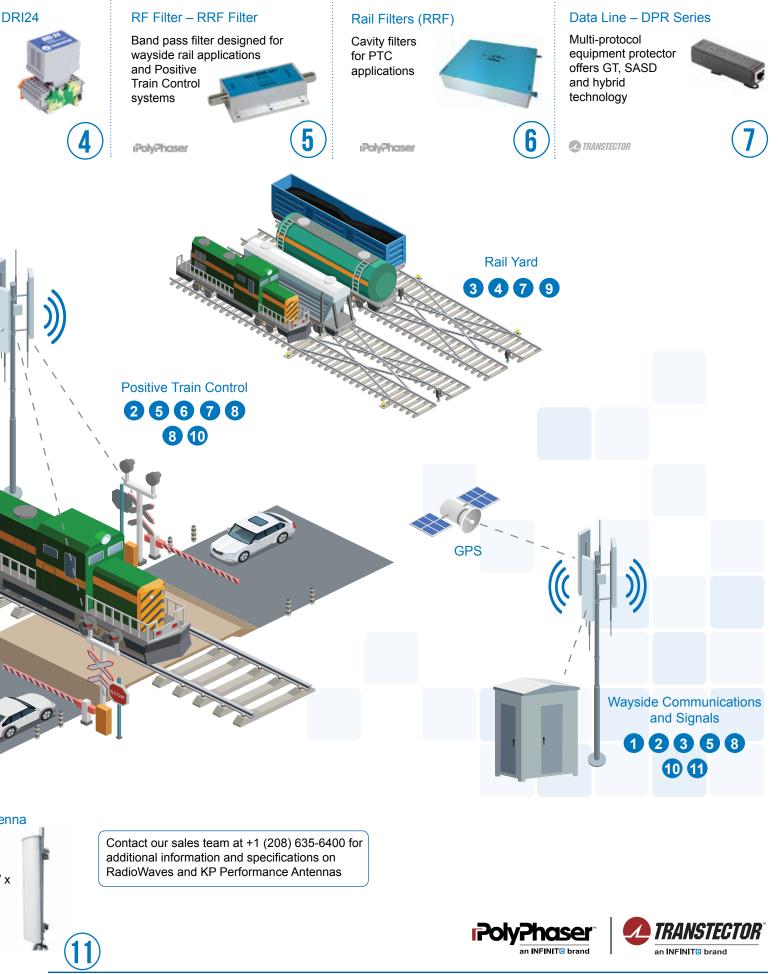




# Single Pole Ante

Frequency range 902 - 928 MHz Dimensions 27.5' 7" x 3.5" Gain 11.5 dBi







About Infinite Electronics

Infinite Electronics is a leading global supplier of electronic components serving the urgent needs of engineers through a family of highly recognized and trusted brands. Our portfolio of brands, including Pasternack, Fairview Microwave, L-com, MilesTek, KP Performance Antennas, PolyPhaser, Transtector, RadioWaves, Aiconics, Integra Optics, INC Installs, and ShowMe Cables, are technology specialists that provide broad inventories offering engineering-grade products, expert technical support, and same-day shipping.

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