



**MOTOROLA**

RELIABLE COMMUNICATION FOR LAND MOBILE RADIO

Working with Motorola and regulatory agencies for more than 40 years, PolyPhaser and Transtector Systems has developed an established reputation of providing dependable P25 and TETRA compliant surge protection solutions for global LMR applications, enabling secure, reliable and interoperable networks when they are needed most.

## AC SURGE PROTECTION

### Panel Protection



IMAX 120T

Robust, modular, 160 kA per phase, high surge current capacity, AC panel surge protection with visual and remote status indication in an outdoor enclosure.

- Visual remote status monitoring
- Line and load bidirectional protection
- Replacement modules
- Outdoor enclosure
- Motorola R56 approved
- Fault current rating 65 kAIC

MSI Part	Part Number	Name	Technology	Voltage	MCOV	Standards
<a href="#">DSAPEXIMAX808</a>	1101-808-1	IMAX 120T	Silicon   MOV	120/240 Split Phase	138 Vac L-N	UL 1449 4th Edition, Listed
<a href="#">DSAPEXIMAX809</a>	1101-809-1	IMAX 120W	Silicon   MOV	120/208 3-Phase	138 Vac L-N	UL 1449 4th Edition, Listed
<a href="#">DSAPEXIMAX809M</a>	1101-809-MM-1	IMAX 120W (Metal)	MOV	120/208 3-Phase	138 Vac L-N	UL 1449 4th Edition, Listed
<a href="#">DSAPEXIMAX808M</a>	1101-808-MM-1	IMAX 120T (Metal)	MOV	120/240 Split Phase	138 Vac L-N	UL 1449 4th Edition, Listed

### Plug-in Protection



RMP 615A

AC SASD (silicon avalanche suppressor diode) surge protection devices designed to protect electronic equipment and systems from transient over-voltage's on 120 Vac and 240 Vac applications.

- Line and load bidirectional protection
- Compact 1RU design

MSI Part	Part Number	Name	Description	Voltage	MCOV	Mechanical	Receptacle Type	Standards
<a href="#">DSRMP615A</a>	1101-534	RMP 615A	15A (Fused), Multiple Outlet, Silicon Surge Protector	120 Vac Single Phase	138 Vac	15' Cord	Six NEMA 5-15	IEEE C62.41
<a href="#">DSRMP420B</a>	1101-942	RMP 2-420A-520	20A, Multiple Outlet, Silicon Surge Protector	120 Vac Single Phase	138 Vac	15' Cord	Eight NEMA 5-20	IEEE C62.41
<a href="#">DS1400</a>	1101-560	RMP2-420A-L520	20A, Multiple Outlet, Silicon Surge Protector	120 Vac Single Phase	138 Vac	15' Cord	Eight NEMA 5-20	IEEE C62.41



SL 120

TS 120-520

IEC 240 V

Solid state silicon AC plug in devices with status indication.

MSI Part	Part Number	Name	Description	Voltage	MCOV	Mechanical	Receptacle Type	Standards
<a href="#">DSTS120520SM</a>	1101-557	TS 120-520	Multiple Outlet, Silicon Surge Protector	120 Vac Single Phase	140 Vrms L-N	12" Cord	NEMA 5-20	IEEE C62.41
<a href="#">DSSL120</a>	1104-29-000	SL 120	Type 3 Bi-directional, Silicon Surge Protector	120 Vac Single Phase	150 V	PA66, UL94V-0	NEMA 5-15 Plug	UL 1449 4th Edition
<a href="#">DS1101571</a>	1101-571	IEC 240 V	Type 3 Silicon Surge Protector	240 Vac	276 Vac	Country Specific Plugs and Receptacles	IEC C-19, IEC C-20	CE

## AC SURGE PROTECTION Continued

### AC Power Distribution



AC Edge 120

The AC Edge series offers compact (2RU) rack mount power distribution to address mission critical needs for electronic storage and backup systems. Scalable design to support up to twelve dedicated circuits using phase distribution and independent neutral.

- SASD and MOV technology
- Remote alarm capabilities
- Significantly reduces complexity, labor, time and costs
- Designed to meet Motorola requirements

MSI Part	Part Number	Name	Description	Technology	Voltage	MCOV	Mounting	Status Indication	Standards
<a href="#">DS11011188</a>	1101-1188	AC Edge 120	2RU Rack Mount AC Distribution Panel	Silicon	120 Vac	138 Vac	19" or 23" Racks	Remote Alarm	UL/cUL listed, E211453
<a href="#">DS11011173</a>	1101-1173	AC Edge 240	2RU Rack Mount AC Distribution Panel	MOV	240 Vac	250 Vac	19" or 23" Racks	Remote Alarm	IEC 60950-1



OP8-20

High speed, high current, solid state, AC power distribution device designed to protect eight individual circuits.

- Rack or cabinet mount
- Status indication
- Single phase 15A and 20A options
- Eight individual circuits (L, N, G)

MSI Part	Part Number	Name	Description	Technology	Voltage	MCOV	Input Circuits	Status Indication	Standards
<a href="#">DSOP820B2</a>	1101-700	OP8 20B2	15A Branch Circuit Distribution Panel	Silicon	240 Vac Single Phase	250 Vac	Eight Individual 240 Vac	LED Indication	IEC 61643-1
<a href="#">DSOP820B</a>	1101-356-1	OP8-20	20A Branch Circuit Distribution Panel	Silicon	120 Vac	140 Vac	Eight Individual 120 Vac	LED Indication	UL Listed, UL 94V-0

### AC Power Strip



RMO-120

The RMO Series of power strips are ideal for 19" rack mount power distribution applications. Available in 120 Vac and 240 Vac options.

- Accessory for Transtector OP8 and AC Edge products

MSI Part	Part Number	Name	Description	Voltage	Ports	Mounting	Standards
<a href="#">DSTRPUD120</a>	1102-032-1	RMO 120V	120V, 15A Rack Mount Power Strip	125 Vac	(1) NEMA 5-15 Input, (6) NEMA 5-15 Outputs	1RU, 6' Cord	CE, RoHS Compliant
<a href="#">DS11020322</a>	1102-032-2	RMO 240V	240V, 16A, Rack Mount Power Strip	240 Vac	(1) IEC C14 Input, (8) IEC C 13 Outputs	1.5 RU	CE, RoHS Compliant

### Component Protection



12R IEP 120-10

Compact, 120 Vac surge protection devices that offer high performance silicon technology protection.

- Status indication
- Line and load bidirectional protection

MSI Part	Part Number	Name	Description	Technology	Voltage	MCOV	Mounting	Standards
<a href="#">DSI2RICP120V</a>	1101-627	I2R ICP 120	Indoor, 120 Vac Protector	Silicon	120 Vac Single Phase	138 Vrms	DIN Rail	UL 1449 4th Edition
	1104-15-000	I2R IEP 120-10	Indoor, 120 Vac, 10kA Protector	Silicon	120 Vac	150 Vac	DIN Rail	UL 1449 4th Edition, RoHS, Hazardous Location Certified, Class 1 Div 2
<a href="#">DSACP100MN</a>	1100-647	ACP 100MN	Indoor, 15A (Fused), 120 Vac, Protector	Silicon	120 Vac Single Phase	220 Vrms	Hardwire	IEEE C62.41

## DATA LINE SURGE PROTECTION

### PoE Protection



ALPU-F140

Data line surge protectors are designed with installation in mind to protect PoE++ communication networks. The ALPU series of dataline protectors provides superior technology for indoor and outdoor GbE data applications.

- Compact design
- Pole/wall mount capable
- Indoor/outdoor use
- Grounding stud

MSI Part	Part Number	Name	Voltage	Enclosure	Connector	Mounting	Standards
<a href="#">DSALPUF140</a>	ALPU-F140	ALPU-F140	48 Vdc	HI UV PolyPropylene	RJ45 Cat5e Shielded	Pole or Wall Mount	IEC 60950, IEC 61000-4.5, CE, RoHS
	1101-959	ALPU PTP M	12, 24, 48 Vdc	Die Cast Aluminum	RJ-45 Cat 5 Shielded	Pole or Wall Mount	Hazardous Locations, CE

### Multi-Protocol Protection



CPX GbE

CPX Series products high density, modular, multi-protocol, coordinated Level I and Level II surge protector for OSP environments.

- Fully loaded chassis
- Compact 1RU
- 19" chassis
- Replaceable modules
- Dual lug grounding studs

MSI Part	Part Number	Name	Modules	Voltage	MCOV	Mounting	Standards
<a href="#">DSCPX1101984</a>	1101-984	CPX 16 Port 10/100BT	1.25A Fused	5 Vdc	11 Vdc	Rack Mount	UL 497A
<a href="#">DSCPX1101985</a>	1101-985	CPX 16 Port GbE	1.25A Fused	3.3 Vdc	11 Vdc	Rack Mount	UL 497A
<a href="#">DSCPX1101986</a>	1101-986	CPX 16 Port T1/E1	1.25A Fused	5 Vdc	11 Vdc	Rack Mount	UL 497A



TSJ GbE

TSJ Series is a compact data line surge protection device, engineered for T1, gigabit PoE, GbE, PoE and Ethernet applications

- Easy to install
- External ground
- High surge current capacity

MSI Part	Part Number	Name	Technology	Voltage	MCOV	Connector	Standards
<a href="#">DSTSJ48CLT</a>	1101-300-1	TSJ 48 CLT	Silicon	12 Vdc	12 Vdc	Non-Shielded RJ-45	UL 497A
<a href="#">DS1101990</a>	1101-990	TSJ GbE	GDT & TBU	5 Vdc	11 Vdc	RJ-45 Shielded	UL 497B, RoHS
<a href="#">DSTSJADP</a>	1101-747	TSJ ADP	Ground Bus Bar	NA	NA	RJ 45 Connector	

## DATA LINE SURGE PROTECTION Continued

### Punch Down Block Protection



PBM 6605

Silicon data line surge protection for 66 punch down block applications.

- Line and load bidirectional protection
- Functions as bridge clip
- Ground bar available

MSI Part	Part Number	Name	Technology	Voltage	MCOV	Connector	Standards
<a href="#">DSCP2327</a>	1101-115	PBM 6605	Silicon	230 V	270 Vpk	IDC Punch Down	CE, RoHS Compliant
<a href="#">DSPBM6607</a>	1101-162	PBM 6607	Silicon	40 V	45 Vpk	IDC Punch Down	CE, RoHS Compliant

### Two Pair Signal Protection



FSP 4001 MC

High-speed, high-current, silicon avalanche data line surge protector designed for RS422, RS485 and 4-20mA loops double wire pair equipment.

- SASD technology
- Line and load bidirectional protection
- Protects up to two balanced pairs and shields

MSI Part	Part Number	Name	Technology	Voltage	MCOV	Connector	Mounting
<a href="#">DSWPH01</a>	1101-372-1	FSP 4001 MC	Silicon	12 Vdc	13 Vdc	6 In 6 Out	Wall Mount

## DC SURGE PROTECTION

### Component Protection



Bidirectional, low clamping silicon diode, DIN rail mounted surge protection for DC power and low frequency data lines operating at up to 10 A.

- SASD technology
- Line and load protection
- Replaceable suppression modules

MSI Part	Part Number	Name	Description	Technology	Voltage	MCOV	Standards
<a href="#">DSDRDC7</a>	1101-678	DRDC 7	Modular DIN Rail, Hazardous Location Certified	Silicon	7 Vdc	13 Vdc	Class 1, Div 2, UL497B, RoHS, CE
<a href="#">DSDRDC12</a>	1101-679	DRDC 12	Modular DIN Rail, Hazardous Location Certified	Silicon	12 Vdc	16 Vdc	Class 1, Div 2, UL497B, RoHS, CE
<a href="#">DSDRDC24</a>	1101-680	DRDC 24	Modular DIN Rail, Hazardous Location Certified	Silicon	24 Vdc	32 Vdc	Class 1, Div 2, UL497B, RoHS, CE
<a href="#">DSI2RSA4840</a>	1104-11-002	I2R IEP 48-5	Modular, Class II, with Status Indication	Silicon	48 Vdc	57 Vdc	IEC 61643-1, RoHS

### Outdoor Protection



DCOD offers SASD technology that provides non-degrading, silicon protection for DC power supplies up to 25A in an outdoor enclosure.

- Outdoor NEMA 3R
- Dry contacts for alarming
- Three mode protection

MSI Part	Part Number	Name	Description	Technology	Voltage	MCOV	Standards
<a href="#">DS11011027</a>	1101-1027	DCOD 48-5	Outdoor 5kA DC Protector	Silicon	48 Vdc	88 Vdc	IP-SS

### DC Power Distribution



Compact mid-current, universal voltage power panel featuring quad-feed 100 A buses for secondary power distribution

- Compact 1 RU
- Front load circuit breakers
- LED status/alarm indication
- Negative polarity

MSI Part	Part Number	Name	DC Fault	Breakers	Contacts	Voltage	Ground	Standards
<a href="#">DS11011051</a>	1101-1051	DC Edge III	10k	(4) Breakers Per Bus Total 16 Positions	Dry Form C	-24V to -48V	Dual ¼ -20 studs	UUL 60950, NEBS-3V

## RF SURGE PROTECTION

### Ultra Low PIM



TSX-DFM-BF

High performance, ultra low PIM RF protectors for 698 MHz to 2.7 GHz

- Bulkhead mount
- Maximum power 750 W
- <-155 dBC PIM 3rd order

MSI Part	Part Number	Connector	Antenna	Equipment	Frequency	PIM Spec	Type
<a href="#">DSTXDFMBF</a>	TSX-DFM-BF	DFM Bi-Directional	D Female	D Male	698MHz - 2.7GHz	<-155 dBC	DC Block
<a href="#">DSTXDFBFB</a>	TSX-DFF-BF	DFF Bi-Directional	D Female	D Female	698MHz - 2.7GHz	<-155 dBC	DC Block

### DC Block Bulkhead Arrestor



VHF50D-PGR

Designed to protect multiple or high power single RF transmitter applications where DC is not required on the coaxial cable

- Flange or bulkhead mount
- Maximum power 750 W
- Low let-through voltage and throughput energy

MSI Part	Part Number	Connector	Antenna	Equipment	Frequency	PIM Spec	Type
<a href="#">DSVHF50DMPGR</a>	VHF50HD-MA-PGR	D Connector (M/M)	D Male	D Male	100 MHz to 512 MHz	<-155 dBC	DC Block
<a href="#">DSVHF50DPGR</a>	VHF50D-PGR	D Connector (F/F)	D Female	D Female	100 MHz to 512 MHz	<-155 dBC	DC Block



VHF50-N

RF surge protector for all frequency bands including VHF, UHF, 700/800 MHz and 900 MHz

- Flange and bulkhead mount
- Maximum power 750 W
- Turn on voltage 16.5 Vdc

MSI Part	Part Number	Connector	Antenna	Equipment	Frequency	PIM Spec	Type
<a href="#">DS1090501WD</a>	109-0501W-D	N Connector (F/F)	N Female	N Female	700MHz - 1GHz	No	DC Pass
<a href="#">DSVHF50HN</a>	VHF50-N	N Connector (F/F)	N Female	N Female	512 MHz	No	DC Block

### DC Block Single Transmitter Coaxial Protection



IS-B50LN-C2-MA

DC block broadband HF/VHF/UHF coaxial protector

- Multi-strike capacity
- Low throughput energy
- Flange and bulkhead mounting options

MSI Part	Part Number	Connector	Antenna	Equipment	Frequency	PIM Spec	Type
<a href="#">DSISB50LNC2MA</a>	IS-B50LN-C2-MA	N Connector (M/F)	N Male	N Female	125MHz - 1GHz	No	DC Block (Turn on 600 Vdc) Bulkhead Mount
<a href="#">DSISB50HNC2MA</a>	IS-B50HN-C2-MA	N Connector (M/F)	N Male	N Female	125MHz - 1GHz	No	DC Block (Turn on 1200 Vdc) Bulkhead Mount
<a href="#">DSIS50NXC2MA</a>	IS-50NX-C2-MA	N Connector (M/F)	N Male	N Female	125MHz - 1GHz	No	DC Block (Turn on 600 Vdc), Flange Mount

## RF SURGE PROTECTION Continued

### Hybrid DC Pass RF Protector



DGXZ+06NFNF-A

Hybrid, multistage, high current capacity lightning protector

- Flange and bulkhead mount
- RF power 300W RMS

MSI Part	Part Number	Connector	Antenna	Equipment	Frequency	PIM Spec	Type
<a href="#">DSDGXZ06NFNFA</a>	DGXZ+06NFNF-A	N Connector (F)	N Female	N Female	800MHz - 2.5GHz	No	DC Pass

### Multi-Protocol Data Line



IX-2L1M1DC48-IG

Weatherized twisted pair surge protection for up to five pairs

- Modular
- Isolated ground
- GPS link protector GTR six pack

MSI Part	Part Number	Data	Data Rate	Package
<a href="#">DSIX2L1M1DC48IG</a>	IX-2L1M1DC48-IG	DATA2@12V 1@31V DC1@48V ISO GRD	Up to 25 Mb/s	GPS GTR six Pack

## CONTACT US

**Committed to Service** - Our dedicated customer service, applications engineering and sales team are available to support Motorola network engineers, service shops and integrators in providing the right surge protection products and services for each unique LMR application requirement.

### Please contact our Product Support Team for additional information

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