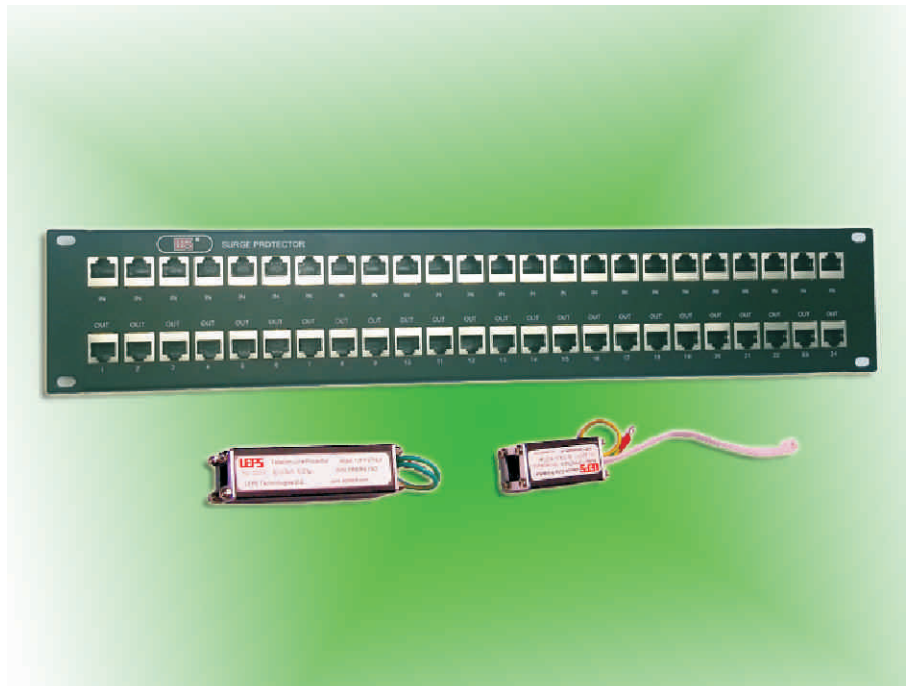


TELECOM LINE PROTECTOR



Provides superior lightning and surge protection, EMI and RFI suppression for telecommunication lines like PSTN, ISDN, DDN, DSL and T1/E1

- ◆ Single port or multi-port protection
- ◆ Versatile telecom lines protection(T1/E1, PSTN, ISDN, DDN, xDSL)
- ◆ All mode protection
- ◆ Multi-stage protection offers exceptional safety
- ◆ High surge rating & bandwidth
- ◆ Simple plug-in installation
- ◆ Five years warranty



Single-port or multi-port protection -

TLP series of telecommunication lines protectors offers a flexible surge protection solution that can grow with your requirements. It is available for single port telecom terminal protection and multiport protection with a maximum of 24 port, 19" rack-mounting applications using RJ45 or RJ11 connectors.

Versatile telecom lines protection

- TLP series are designed to protect all widely used telecommunication lines like T1/E1, PSTN, ISDN, DDN xDSL and also audio line. Different connectors like RJ45, RJ11 and British plug/socket are available.

All mode protection - Transient overvoltage due to lightning induced surges, AC power interference and ground loop energies appearing between any signal pair and/or its ground can damage the sensitive telecommunication equipment. TLP series protector are uniquely designed to protect both common and differential mode in all the connected pins of the RJ45 or RJ11 port and

its ground lead.

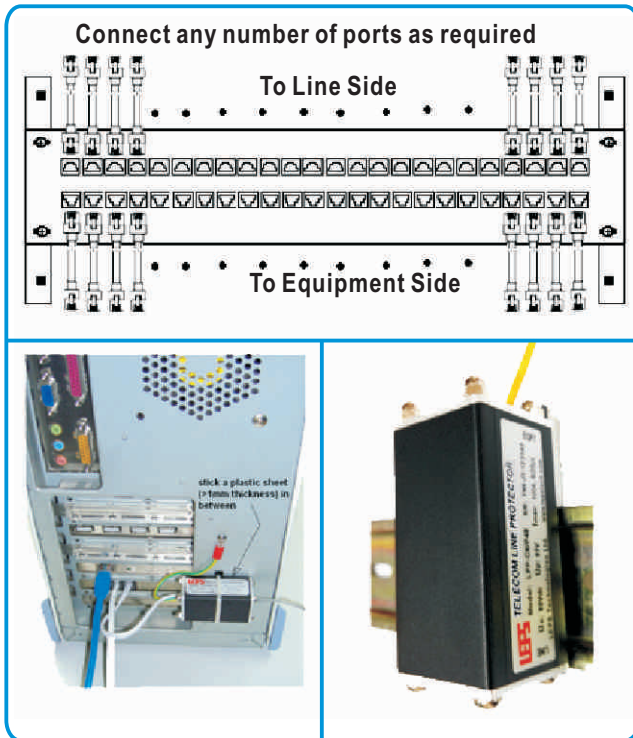
Multi-stage protection offers exceptional safety - TLP series are multi-stage design which employed sophisticated hybrid circuitry IC with built-in low pass filter and TVS diodes to provide bidirectional filtering of EMI/RFI signal and surge protection. This ensures maximum system reliability and up-time.

High surge rating & bandwidth -

With its 20KA surge handling capability and 10MHz high bandwidth, it can provide the safest protection in lightning intense environment and also ensures a smooth data traffic. .

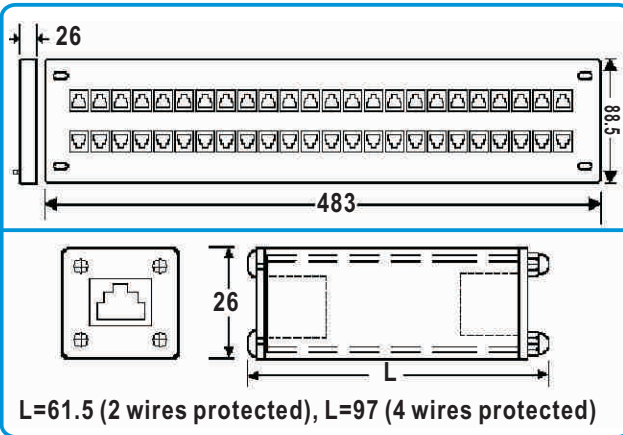
Simple plug-in installation - The compact, in-line and simple plug-in design enables it to be easily located near to the protected equipment. When multiport protection are required, the 19" rack-mounting models can be chosen which can hold up to 24 ports and only occupying 2U space.

Installation



For detail installation requirements, pls refer to relevant user manual.

Dimensions



General Specifications

SPD class(EN/IEC):	TYPE 2/Class II
Max. working voltage, U_c: Line to Line	190V (PSTN) 60V (ISDN) 68V (DDN) 50V (xDSL) 8V (T1/E1)
Max. operating current, I_L:	150mA
Protection modes:	common and transverse
Lines protected:	2 wires(RJ11-pin3&4, RJ45-pin4&5) 4 wires(RJ11-pin3&4,2&5 RJ45-pin4&5,3&6) 4 wires(RJ45-pin1&2,4&5)-for T1/E1 protocol
Response time, t_A:	<5ns
Max. discharge current, I_{max}:	20KA(8/20μs)
Max. data rate:	6Mb/s
Voltage protection level, U_p: (At 5KV 10/700μs)	220V (PSTN) 80V (ISDN) 78V (DDN) 60V (xDSL) 23V (T1/E1)
Shunt capacitance:	<160pF
Insertion loss:	<0.3dB (At 144KHz)
In line resistance:	8.2Ω (other telecom lines)
Standards compliance:	BS EN/IEC 61643-21 AS1768-2007 Cat.A.B.C ITU(CCITT)1X K17 CP33-1996 Cat.A.B.C UL497B
EMC compliance:	EN61000-4-3:2002 (radiated) EN61000-4-6:1996/A22001:2007 (conducted)
Connector type:	RJ45 or RJ11
Earth connection:	Flying lead (single port models) Earth stud (rack-mount models)
Case material:	Anodized aluminum (single port) Galvanized steel alloy (multi-port)
Operating temperature, T_u:	-40-85°C
Humidity:	0-95%(R.H.)
Altitude:	0-3650m
Weight:	
TLP-x (2 wires models)	65g
TLP-x (4 wires models)	99g
TLP8-x (2 wires models)	1060g
TLP8-x (4 wires models)	1130g
TLP16-x (2 wires models)	1160g
TLP16-x (4 wires models)	1290g
TLP24-x (2 wires models)	1260g
TLP24-x (4 wires models)	1450g

ORDERING INFORMATION



MODEL	PRODUCT DESCRIPTION	PHOTO/DRAWING
TLP-PSTN/L2	Single RJ45 port, 2 wire, PSTN line protector	
TLP-PSTN/T2	Single RJ12 port, 2 wire, PSTN line protector	
TLP-PSTN/L4	Single RJ45 port, 4 wire, PSTN line protector	
TLP-ISDN/L4	Single RJ45 port, 4 wire, ISDN line protector	
TLP-DDN/L4	Single RJ45 port, 4 wire, DDN line protector	
TLP-DSL/L4	Single RJ45 port, 4 wire, DSL line protector	
TLP-E1/L4	Single RJ45 port, 4 wire, E1/T1 line protector	
TLP-PSTN/T4	Single RJ12 port, 4 wire, PSTN line protector	
TLP-ISDN/T4	Single RJ12 port, 4 wire, ISDN line protector	
TLP-DDN/T4	Single RJ12 port, 4 wire, DDN line protector	
TLP-DSL/T4	Single RJ12 port, 4 wire, DSL line protector	
TLP8-PSTN/L2	19" rack-mount, 8 RJ45 port, 2 wire, PSTN line protector	
TLP8-PSTN/L4	19" rack-mount, 8 RJ45 port, 4 wire, PSTN line protector	
TLP8-ISDN/L4	19" rack-mount, 8 RJ45 port, 4 wire, ISDN line protector	
TLP8-DDN/L4	19" rack-mount, 8 RJ45 port, 4 wire, DDN line protector	
TLP8-DSL/L4	19" rack-mount, 8 RJ45 port, 4 wire, DSL line protector	
TLP8-E1/L4	19" rack-mount, 8 RJ45 port, 4 wire, E1/T1 line protector	
TLP8-PSTN/T2	19" rack-mount, 8 RJ12 port, 2 wire, PSTN line protector	
TLP8-PSTN/T4	19" rack-mount, 8 RJ12 port, 4 wire, PSTN line protector	
TLP8-ISDN/T4	19" rack-mount, 8 RJ12 port, 4 wire, ISDN line protector	
TLP8-DDN/T4	19" rack-mount, 8 RJ12 port, 4 wire, DDN line protector	
TLP8-DSL/T4	19" rack-mount, 8 RJ12 port, 4 wire, DSL line protector	
TLP16-PSTN/L2	19" rack-mount, 16 RJ45 port, 2 wire, PSTN line protector	
TLP16-PSTN/L4	19" rack-mount, 16 RJ45 port, 4 wire, PSTN line protector	
TLP16-ISDN/L4	19" rack-mount, 16 RJ45 port, 4 wire, ISDN line protector	
TLP16-DDN/L4	19" rack-mount, 16 RJ45 port, 4 wire, DDN line protector	
TLP16-DSL/L4	19" rack-mount, 16 RJ45 port, 4 wire, DSL line protector	
TLP16-E1/L4	19" rack-mount, 16 RJ45 port, 4 wire, E1/T1 line protector	
TLP16-PSTN/T2	19" rack-mount, 16 RJ12 port, 2 wire, PSTN line protector	
TLP16-PSTN/T4	19" rack-mount, 16 RJ12 port, 4 wire, PSTN line protector	
TLP16-ISDN/T4	19" rack-mount, 16 RJ12 port, 4 wire, ISDN line protector	
TLP16-DDN/T4	19" rack-mount, 16 RJ12 port, 4 wire, DDN line protector	
TLP16-DSL/T4	19" rack-mount, 16 RJ12 port, 4 wire, DSL line protector	
TLP24-PSTN/L2	19" rack-mount, 24 RJ45 port, 2 wire, PSTN line protector	
TLP24-PSTN/L4	19" rack-mount, 24 RJ45 port, 4 wire, PSTN line protector	
TLP24-ISDN/L4	19" rack-mount, 24 RJ45 port, 4 wire, ISDN line protector	
TLP24-DDN/L4	19" rack-mount, 24 RJ45 port, 4 wire, DDN line protector	
TLP24-DSL/L4	19" rack-mount, 24 RJ45 port, 4 wire, DSL line protector	
TLP24-E1/L4	19" rack-mount, 24 RJ45 port, 4 wire, E1/T1 line protector	
TLP24-PSTN/T2	19" rack-mount, 24 RJ12 port, 2 wire, PSTN line protector	
TLP24-PSTN/T4	19" rack-mount, 24 RJ12 port, 4 wire, PSTN line protector	
TLP24-ISDN/T4	19" rack-mount, 24 RJ12 port, 4 wire, ISDN line protector	
TLP24-DDN/T4	19" rack-mount, 24 RJ12 port, 4 wire, DDN line protector	
TLP24-DSL/T4	19" rack-mount, 24 RJ12 port, 4 wire, DSL line protector	

* The single port models is male to female, male to male or female to female is available on request for single port of male to male OR female to female, add /M or /F at the suffix of the model



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