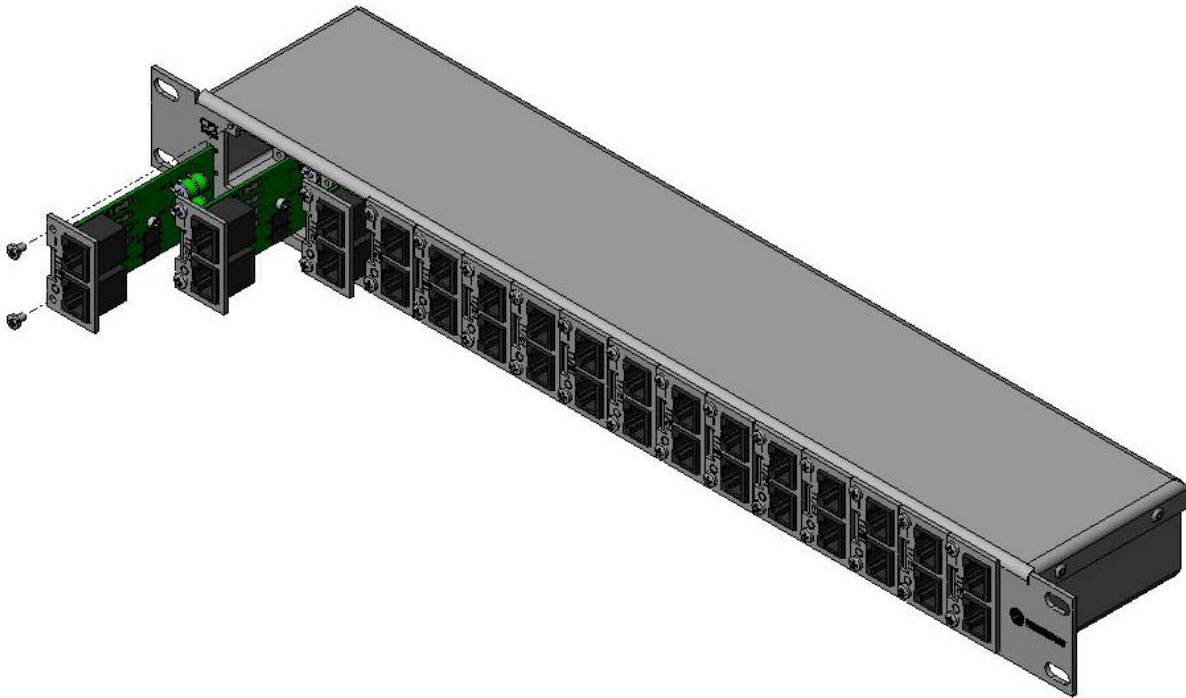


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AND IS MAINTAINED BY A CAD SYSTEM.
CHANGES SHALL ONLY BE
INCORPORATED AS DIRECTED BY THE
DESIGN ACTIVITY.

REVISIONS

LTR	DESCRIPTION	ECO NUM.	DATE	APPROVED
A	PRODUCTION RELEASE	DD34889	12/19/08	MLH
B	UPDATE PER MARKUPS ATTACHED	7977	4/30/09	DLR
C	ADD UL FUSE	8129		
D	ADD UL MARKING	8766	4/7/10	DWR
E	ADD F1.25 MODULES	9577	5/20/11	DWR



DRAWN:	DWR	DATE	12/15/08
	CHECKED:	HM	12/19/08
	ENGR. APPD:	MLH	12/19/08
	PROJ. APPD:	MAN	12/19/08
	APPROVED:		



Transtector Systems, Inc.

10701 Airport Road, Hayden, ID 83835

800.882.9110 208.772.8515 www.transtector.com

TITLE:

**Product Specification
CPX Series Surge Protectors
Carrier Grade Protection**

MATERIAL:

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SYSTEMS. WHO RESERVES ALL
RIGHTS THERETO

SIZE
A

CAGE
30992

DRAWING NUMBER
1400-661

REV
E

SCALE = N/A

PAGE 1 OF 5

1. GENERAL DESCRIPTION: Transtector's CPX Series of surge protection devices are engineered for high performance, compact, versatile surge protection of 10/100Base-T(X), 1000Base-T (GbE) and T1/E1 equipment used for communications circuits. Configured in a 1RU 19" rack chassis (23" rack adapter available), up to 16 protection modules can be populated with all input/output connections on the front face. The CPX Series Protection Modules employ a hybrid protection solution comprised of high-energy gas discharge tube technology and low-capacitance transient blocking technology. The modules are available in three different fuse configurations: 500mA telecom fuse, 1.25A telecom fuse (-F1.25 versions) and non-fused (-NF versions). The -F1.25 & -NF version protection modules have been tested to the Telecommunications Port Level I & II Lightning Requirements as well as Severe Climatic Conditions as outlined in Telcordia GR-1089-CORE, and are both UL/CSA Listed to UL 497B. The -F1.25 protection modules employ standard 1.25A telecom fuses and have also been tested to the AC power fault requirements as outlined in Telcordia GR-1089-CORE. The base models employ a standard 500mA telecom fuse and are UL/CSA Listed to UL 497A.

2. PART NUMBERS:

2.1. CONFIGURED CPX RACKS

2.1.1. CPX 10/100BT 16 PORT PROTECTOR, NON-FUSED (UL 497B).....	1101-974
2.1.2. CPX GbE 16 PORT PROTECTOR, NON-FUSED (UL 497B)	1101-975
2.1.3. CPX T1/E1 16 PORT PROTECTOR, NON-FUSED (UL 497B)	1101-976
2.1.4. CPX 10/100BT 8 PORT PROTECTOR, NON-FUSED (UL 497B).....	1101-977
2.1.5. CPX GbE 8 PORT PROTECTOR, NON-FUSED (UL 497B)	1101-978
2.1.6. CPX T1/E1 8 PORT PROTECTOR, NON-FUSED (UL 497B)	1101-979
2.1.7. CPX 16 PORT 10/100, 1.25A FUSED (UL 497B).....	1101-984
2.1.8. CPX 16 PORT GBE, 1.25A FUSED (UL 497B)	1101-985
2.1.9. CPX 16 PORT T1/E1, 1.25A FUSED (UL 497B)	1101-986
2.1.10. CPX 8 PORT 10/100, 1.25A FUSED (UL 497B).....	1101-987
2.1.11. CPX 8 PORT GBE, 1.25A FUSED (UL 497B)	1101-988
2.1.12. CPX 8 PORT T1/E1, 1.25A FUSED (UL 497B)	1101-989

2.2. INDIVIDUAL CPX COMPONENTS

2.2.1. CPX HOUSING KIT 19" RACK 16 PORT CAPACITY	1101-972
2.2.2. CPX 10/100BT PROTECTION MODULE, 500mA FUSED (UL 497A)	1000-1268
2.2.3. CPX 10/100BT PROTECTION MODULE, 1.25A FUSED (UL 497B).....	1000-1268-F1.25
2.2.4. CPX 10/100BT PROTECTION MODULE, NON-FUSED (UL 497B)	1000-1268-NF
2.2.5. CPX T1/E1 PROTECTION MODULE, 500mA FUSED (UL 497A).....	1000-1269
2.2.6. CPX T1/E1 PROTECTION MODULE, 1.25A FUSED (UL 497B)	1000-1269-F1.25
2.2.7. CPX T1/E1 PROTECTION MODULE, NON-FUSED (UL 497B)	1000-1269-NF
2.2.8. CPX GbE PROTECTION MODULE, 500mA FUSED (UL 497A)	1000-1270
2.2.9. CPX GbE PROTECTION MODULE, 1.25A FUSED (UL 497B)	1000-1270-F1.25
2.2.10. CPX GbE PROTECTION MODULE, NON-FUSED (UL 497B).....	1000-1270-NF



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3. ELECTRICAL:

3.1. 10/100BT PROTECTION MODULE

3.1.1. Data Rate.....	100 Mb/s
3.1.2. Nominal Operating Voltage.....	5 Vdc
3.1.3. Maximum Continuous Operating Voltage	11 Vdc
3.1.4. Connector Style.....	RJ-45, Unshielded, Cat5
3.1.5. Maximum Capacitance per Pin	3 pF
3.1.6. Maximum DC Series Resistance	9Ω
3.1.7. Protected Pins	(1,2) & (3,6)
3.1.8. Unprotected Pins (Shorted to Ground).....	(4,5) & (7,8)
3.1.9. Nominal Gas Tube Spark Over Voltage	75 Vpeak
3.1.10. Nominal Transient Blocking Current Threshold	280 mA

3.2. GbE PROTECTION MODULE

3.2.1. Data Rate.....	1000 Mb/s
3.2.2. Nominal Operating Voltage.....	3.3 Vdc
3.2.3. Maximum Continuous Operating Voltage	11 Vdc
3.2.4. Connector Style.....	RJ-45, Unshielded, Cat5
3.2.5. Maximum Capacitance per Pin	3 pF
3.2.6. Maximum DC Series Resistance	9Ω
3.2.7. Protected Pins	(1,2), (4,5), (3,6) & (7,8)
3.2.8. Nominal Gas Tube Spark Over Voltage	75 Vpeak
3.2.9. Nominal Transient Blocking Current Threshold	280 mA

3.3. T1E1 PROTECTION MODULE

3.3.1. Data Rate.....	1.544/2.048 Mb/s
3.3.2. Nominal Operating Voltage.....	5 Vdc
3.3.3. Maximum Continuous Operating Voltage	11 Vdc
3.3.4. Connector Style.....	RJ-45, Unshielded, Cat5
3.3.5. Maximum Capacitance per Pin	3 pF
3.3.6. Maximum DC Series Resistance	9Ω
3.3.7. Protected Pins	(1,2) & (4,5)
3.3.8. Unprotected Pins (Shorted to Ground).....	(3,6) & (7,8)
3.3.9. Nominal Gas Tube Spark Over Voltage	75 Vpeak
3.3.10. Nominal Transient Blocking Current Threshold	280 mA

3.4. Surge Suppression Levels, per Telcordia GR-1089-CORE

3.4.1. 10/360μs 1 st Level Lightning (25 Repetitions)	100 A
3.4.2. 10/1000μs 1 st Level Lightning (25 Repetitions, F1.25 & NF Versions)	100 A
3.4.3. 10/1000μs 1 st Level Lightning (25 Repetitions, F1.25 & NF Versions)	100 A
3.4.4. 2/10μs 2 nd Level Lightning (1 Repetition)	500 A
3.4.5. 8/20μs Severe Climatic Conditions (1 Repetition)	20 kA

4. MECHANICAL:

- 4.1. Rack Chassis Material 14 gauge aluminum, beige powder coat
 4.2. Weight, Individual Module 0.1 lb [0.045kg]
 4.3. Weight, Fully Configured 3.0 lb [1.36kg]
 4.4. Rack Chassis Dimensions 1.75" [4.45 cm] x 19.00" [48.26 cm] x 3.30" [8.38 cm]

5. ENVIRONMENTAL:

- 5.1. Operating/Storage Temperature: -40°C to +75°C
 5.2. Relative Humidity: 99% (non-condensing)

6. **INSTALLATION:** The CPX SERIES is intended to be installed per article 800 of the NEC indoors, using one rack space within a 19" RS-310-C standard rack. Attach the CPX SERIES into the 19" rack using the four each 10-32 screws at each corner of the chassis front face (hardware provided). A mechanical outline drawing is shown in Figure 1. **Warning!!** The dedicated dual ground studs on the rear of the unit must be connected to the nearest master ground bar for proper operation. Refer to Transtector installation instruction document 1200-201 for installation, wiring & replacement of the individual protection modules; an outline drawing for the modules is given in Figure 2.

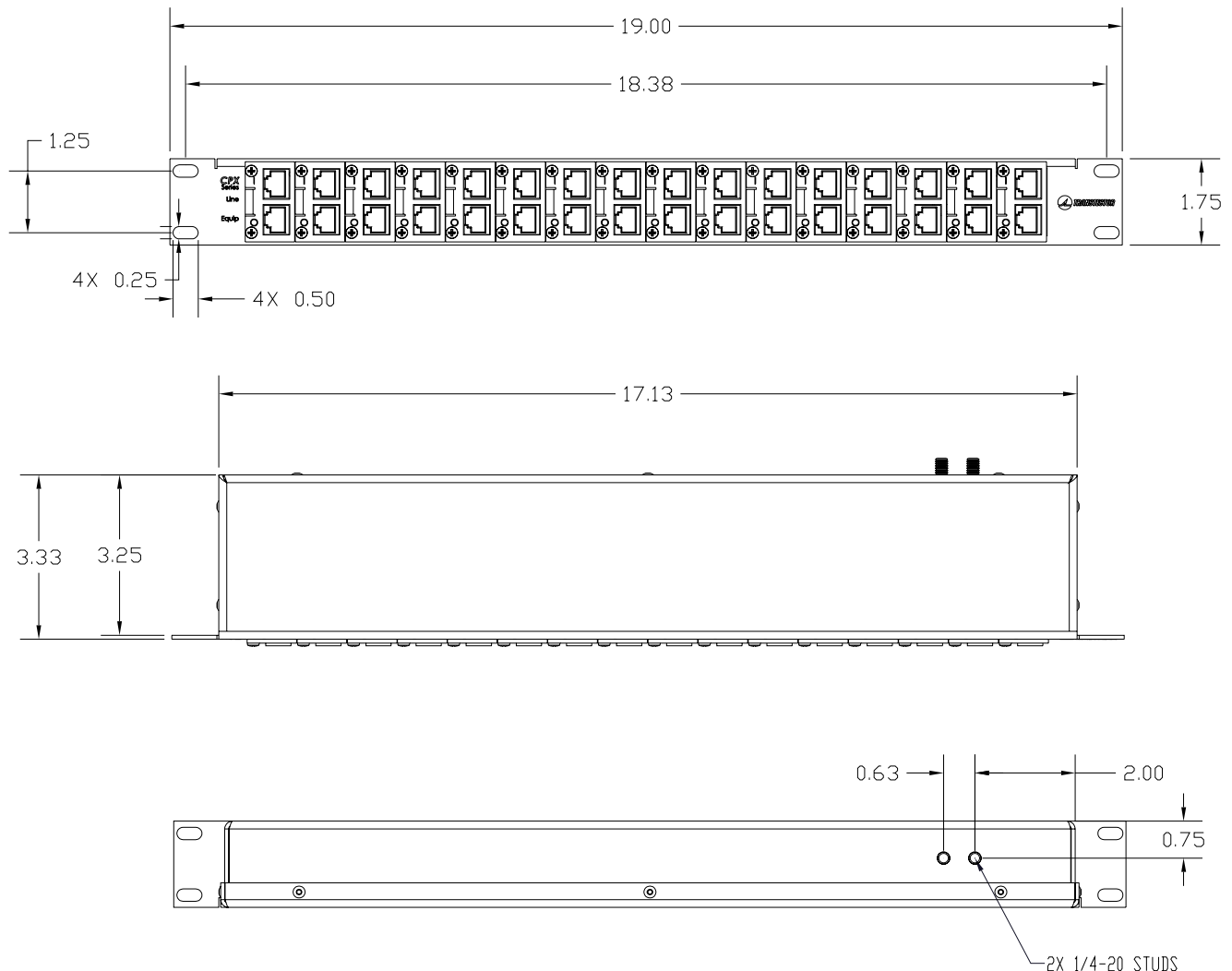


Figure 1: CPX Series Mechanical Outline Drawing

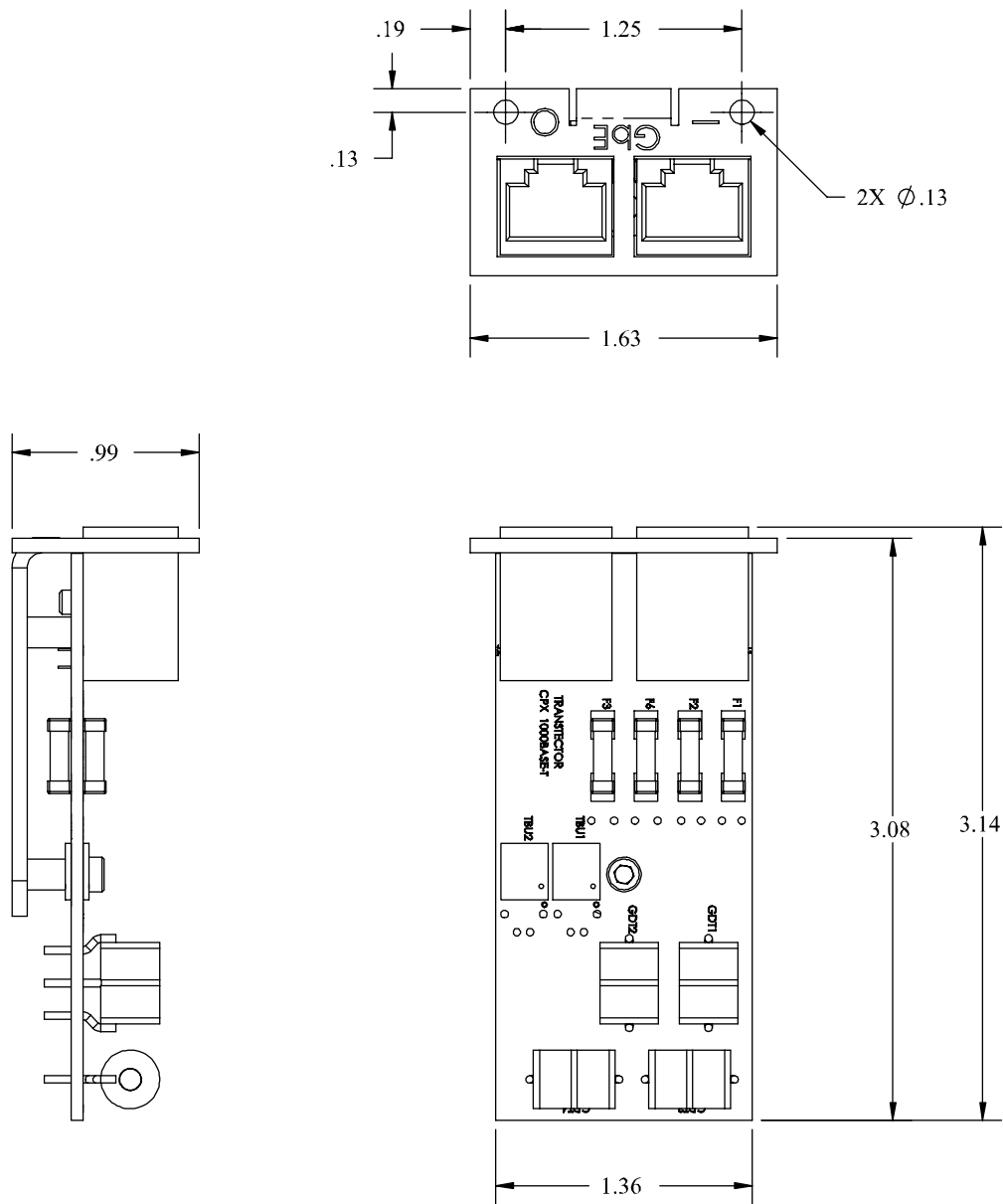


Figure 2: CPX Protection Module Mechanical Outline Drawing