

REV	LOCATIONS	DESCRIPTION	DATE	REVISER	APPD
1	△	Update the structure of housing	29/OCT/25	MATT	LEO

### SPECIFICATIONS

#### Electrical

Current Rating: 1.5A AC(rms)/DC  
Voltage Rating: 125V AC(rms)/DC  
Contact Resistance: 30 mΩ Max  
Insulation Resistance: 500 MΩ Min / DC 500V  
Withstanding Voltage: 1000V AC r.m.s  
Operating Temperature: -40°C~+85°C

#### Mechanical

Durability: 750 cycles Min.  
Insertion force: 23 N Max.

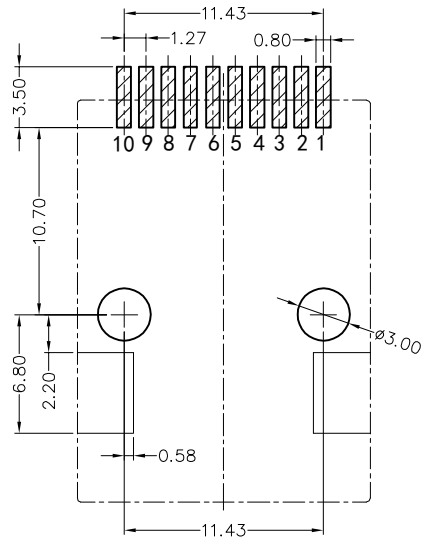
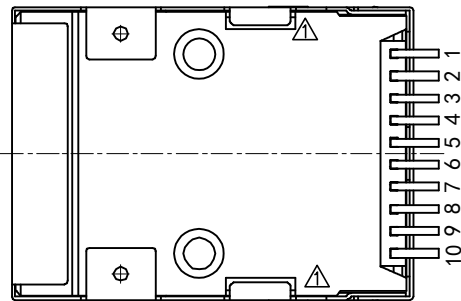
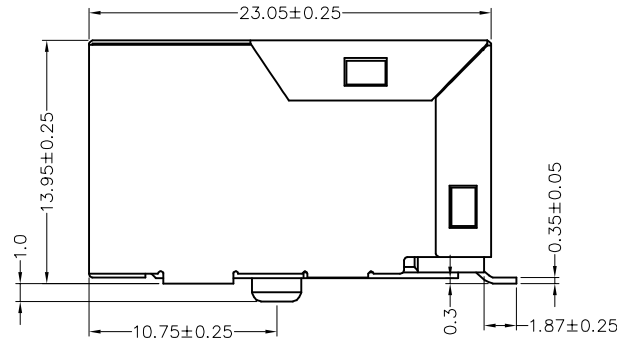
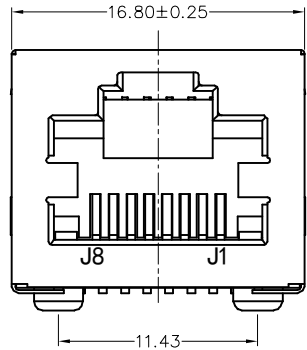
#### Material and plating

Housing: LCP (UL 94V-0), Black  
Contact: Phosphor Bronze/ Selective gold on contact area, tin on tail  
Shell: Brass T=0.20mm/ Nickel plated

### Ordering Information

FRJ45 166 — 1 3 XX BK K 0 1 0 2  
1 2 3 4 5 6 7 8 9

1	Category	2	Distinction No.	3	Ports options	4	Plating
	FRJ45-RJ45 Connector		166		1-1 Port		3-Selective gold on contact area, tin on tail
5	Thickness of plating	6	Color-Resin	7	Packaging	8	Contact type
	00-Gold flash 06-6μ" Custom plate available		BK-Black		K-Tray		1-Square pin
							8
							Pin circuits
							2-1000Base-T



Recommended P.C.Board Layout  
Tolerances: ±0.05

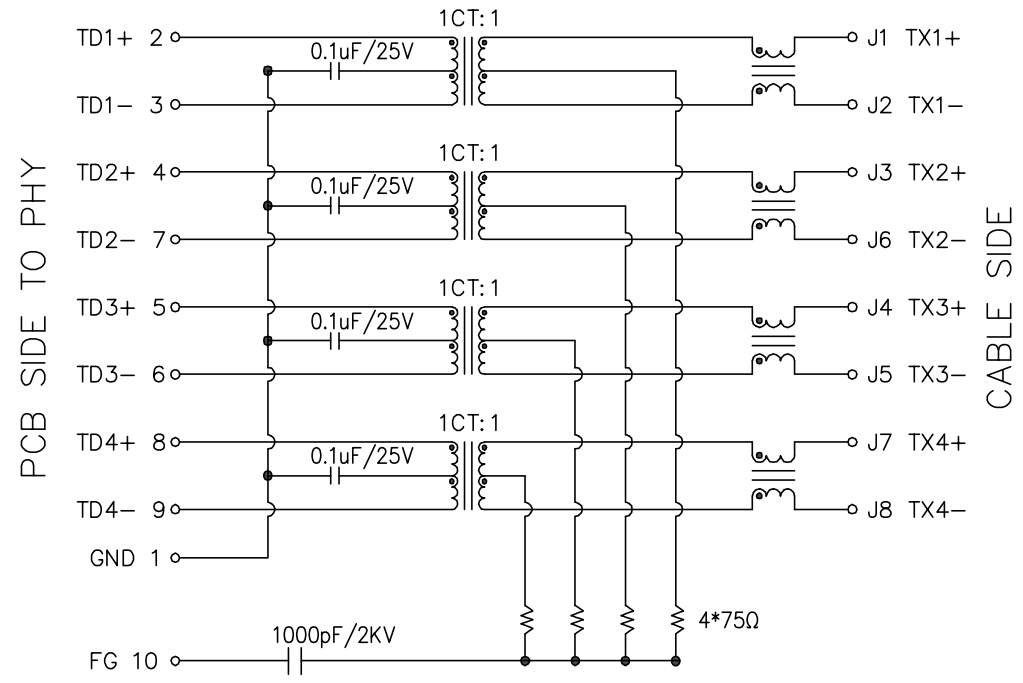
 THIRD ANGLE PROJECTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		APPROVE BY	DATE	PART NO.	ITEM NO.	 Building Technology Cornerstone
	X. ±0.30	X.* ±5°	FRANK	30/MAR/21	FRJ45166-13XXBKK0102	FRJ45166	
DESIGN UNITS	X.X ±0.20	X.X* ±2°	CHECKED BY	DATE	TITLE		REV 1
Metric	X.XX ±0.15	X.XX* ±1°	CHERRY	30/MAR/21	RJ45 Connector 90° Angle SMT		SHEET NO. 1/2
SCALE	X.XXX ±0.10	X.XXX* ±0.5°	DRAWN BY	DATE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
5:1			KATE	30/MAR/21			

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Electrical Specifications

- Turn ratio: 2~3: J1~J2=1CT:1CT(±2%)  
4~7: J3~J6=1CT:1CT(±2%)  
5~6: J4~J5=1CT:1CT(±2%)  
8~9: J7~J8=1CT:1CT(±2%)
- OCL: 350uH Min. at 100KHz 100mV 8mA DC
- Insertion loss: -1.0dB Max. 1MHz~100MHz
- Return loss: -18dB Min. 1MHz~30MHz  
-14dB Min. 30MHz~60MHz  
-12dB Min. 60MHz~80MHz  
-10dB Min. 80MHz~100MHz
- Cross talk: -40dB Min. 1MHz~30MHz  
-35dB Min. 30MHz~60MHz  
-30dB Min. 60MHz~100MHz
- CMR: -30dB Min. 1MHz~100MHz
- Hi-Pot: 2250V DC 6S 1mA PRI TO SEC

SCHEMATIC



<p>THIRD ANGLE PROJECTION</p>	GENERAL TOLERANCES (UNLESS SPECIFIED)		APPROVE BY	DATE	PART NO.	ITEM NO.	<p>Building Technology Cornerstone</p>	
	X. ±0.30	X.* ±5°	FRANK	30/MAR/21	FRJ45166-13XXBKK0102	FRJ45166		
	DESIGN UNITS Metric	X.X ±0.20	X.X* ±2°	CHECKED BY	DATE	TITLE		REV 1
	SCALE 5:1	X.XX ±0.15	X.XX* ±1°	CHERRY	30/MAR/21	RJ45 Connector 90° Angle SMT		SHEET NO. 2/2
	X.XXX ±0.10	X.XXX* ±0.5°	DRAWN BY	DATE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
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