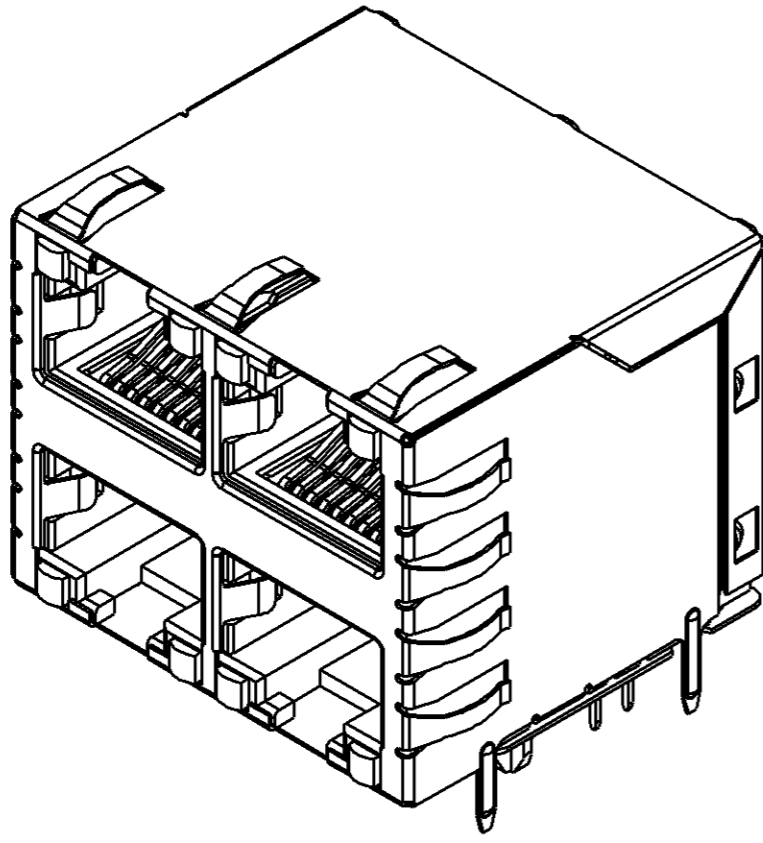
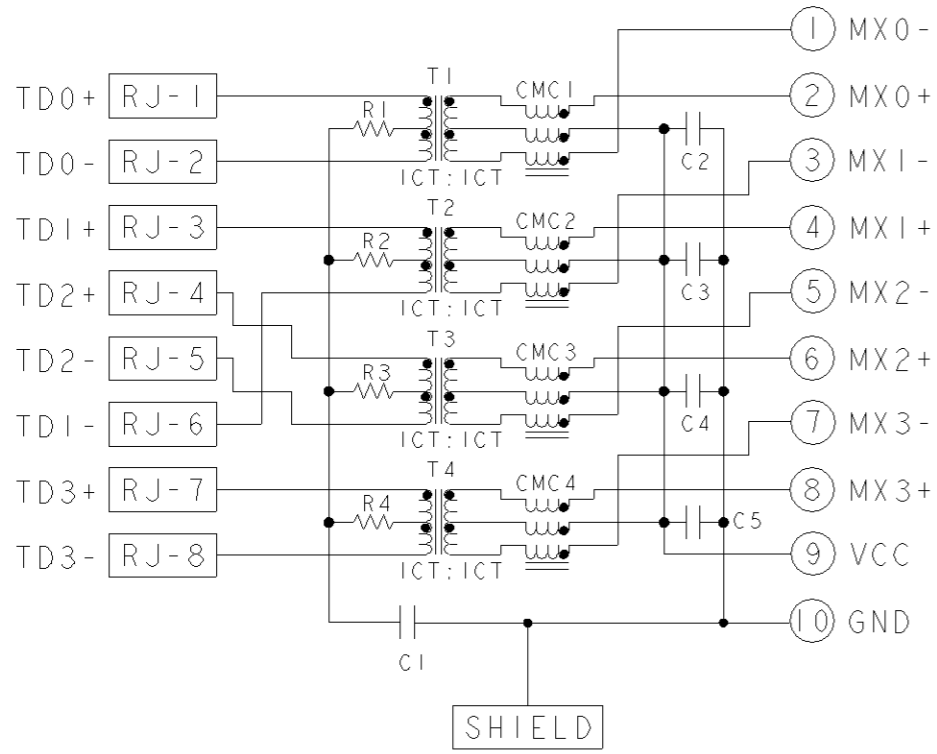


REV	DATE	DESCRIPTION	DATE	BY	APP'D
B	ECO-08-012525		12MAY2008	OL	TX
C	ECO-08-022232		08SEP2008	PL	TX
D	ECO-11-019412		20JUN2011	PP	LJ

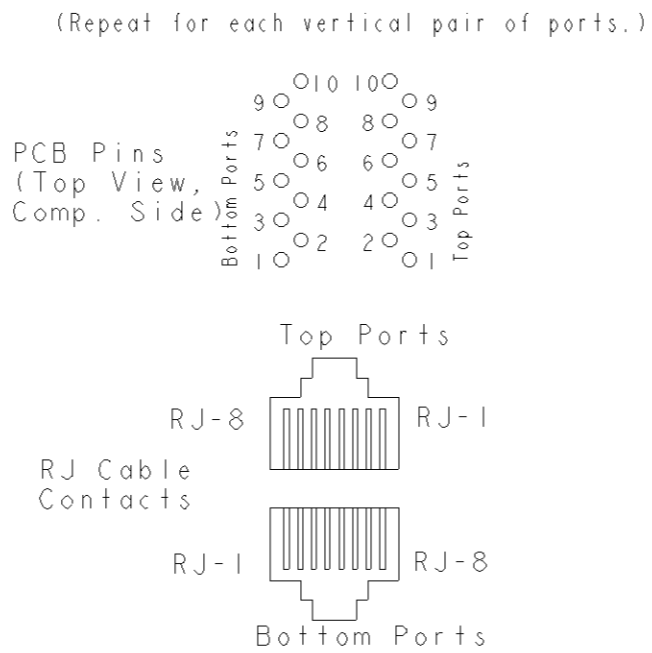


1. MATERIALS:  
 PLASTIC HOUSING: BLACK, THERMOPLASTIC  
 FLAMMABILITY RATING UL 94V-0  
 SHIELD: BRASS, PREPLATED WITH 0.76um MIN SEMI-BRIGHT NICKEL, POST DIPPED WITH 2.54um MIN SAC SOLDER ON SOLDER TAILS,  
 CONTACTS: PHOSPHOR BRONZE, 1.27um MIN OVERALL NICKEL UNDERPLATE WITH SELECT 1.27um MIN GOLD AT MATING INTERFACE AND 2.54um MIN MATTE TIN ON SOLDER TAILS.  
 LED: DIFFUSED EPOXY LENS, CARBON STEEL LEAD FRAME TAILS OF LED ARE PREPLATED WITH 2.03um MIN SILVER OVER 1.02um MIN NICKEL UNDERPLATE OVER 1.02um MIN COPPER UNDERPLATE, POST-PLATED WITH 2.54um MIN MATTE TIN AND/OR SAC SOLDER DIP OR PURE TIN SOLDER DIP
2. MAGNETICS  
 APPLICATION: 10/100/1000 BASE-T  
 IMPEDANCE: 100 OHMS  
 TURNS RATIO (CHIP:CABLE): 1:1 ALL FOUR PAIRS  
 OPEN CIRCUIT INDUCTANCE (OCL): 350uH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM 0°C TO 70°C, ALL FOUR PAIRS  
 ALL FOUR PAIRS BI-DIRECTIONAL PERFORMANCE @ 25°C:  
 INSERTION LOSS (IL): 1.1dB MAX FROM 0.5MHz TO 100MHz  
 RETURN LOSS (RL): 18dB MIN FROM 0.5MHz TO 40MHz  
 12-20LOG(f/80)dB MIN FROM 40.1MHz TO 100MHz  
 CROSSTALK ATTENUATION: 35dB MIN FROM 0.5MHz TO 40MHz  
 33-20LOG(f/50)dB MIN FROM 40.1MHz TO 100MHz  
 COMMON MODE REJECTION RATIO (CMRR): 30dB MIN FROM 0.5MHz TO 100MHz  
 ISOLATION VOLTAGE: COMPLIES WITH IEEE802.3 2002, PARA 40.6.1.1, ITEM b.
3. TE CONNECTIVITY LOGO, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN, AGENCY APPROVAL MARKING LOGO LOCATED IN THE APPROXIMATE AREA SHOWN. DATE CODE YY IS YEAR, WW IS WORK WEEK, D IS DAY OF WEEK, WITH SUNDAY=1
4. THESE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS. PEAK WAVE SOLDERING TEMPERATURE IS 265°C MAX, 10 SECONDS MAX.
5. INDICATED MAGNETIC CONNECTIONS ARE SYMMETRIC AND SUPPORT AUTO-MDIX.
6. RJ45 CAVITY CONFORMS TO FCC RULES AND REGULATION PART 68 SUBPART F
7. LEDS ARE DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA  
 LED COLOR: DOMINANT WAVELENGTH (λD): GREEN 568 nm TYP. @ IF=20mA  
 FORWARD VOLTAGE (VF): GREEN 2.2V TYP. @ IF=20mA  
 DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP. @ IF=20mA  
 FORWARD VOLTAGE (VF): YELLOW 2.1V TYP. @ IF=20mA
8. DATUM AND BASIC DIMENSION ESTABLISHED BY CUSTOMER.
9. BASIC DIMENSION ESTABLISHED BY CUSTOMER, BUT NOT TO BE GREATER THAN 5.08.
10. OPERATING TEMPERATURE: 0°C TO +70°C.

**S8G16 GIGABIT CIRCUIT** ⚠ ⚠  
 TOP AND BOTTOM PORTS



**Pin Designations**



C1 = 1000 pF, 2kV X7R DECOUPLING CAPACITOR  
 C2 - C3 = 50V, 470pF ±10%, X7R CAPACITORS  
 R1 - R4 = 75 Ohms, 1/16 W, ±5% Resistors

GRN/YEL	GRN/YEL	GRN/YEL	GRN/YEL	1840156-4
GREEN	YELLOW	GREEN	YELLOW	1840156-3
YELLOW	GREEN	GREEN	YELLOW	1840156-2
GREEN	GREEN	GREEN	GREEN	1840156-1
BOTTOM LED NO. 2	BOTTOM LED NO. 1	TOP LED NO. 2	TOP LED NO. 1	PART NUMBER

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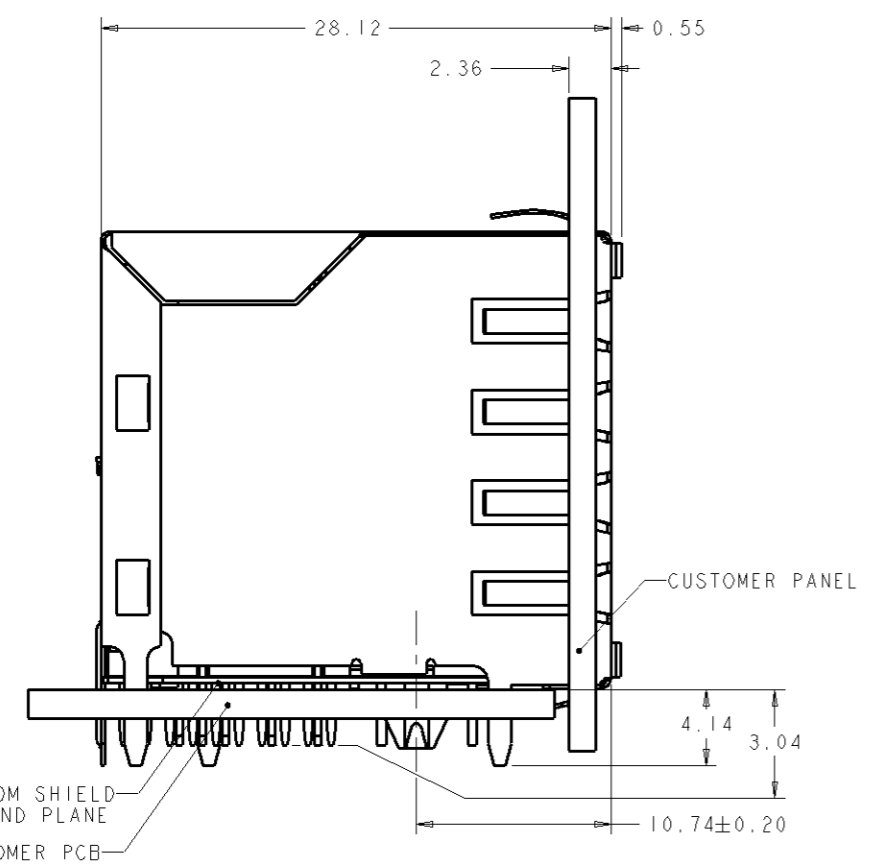
**STE** TE Connectivity

NAME: 2X2 MAG45(TM), GIGABIT S8G16 CIRCUIT W/ LEDS, WAVE PANEL, GROUND SHIELD CONTACT PIN 2

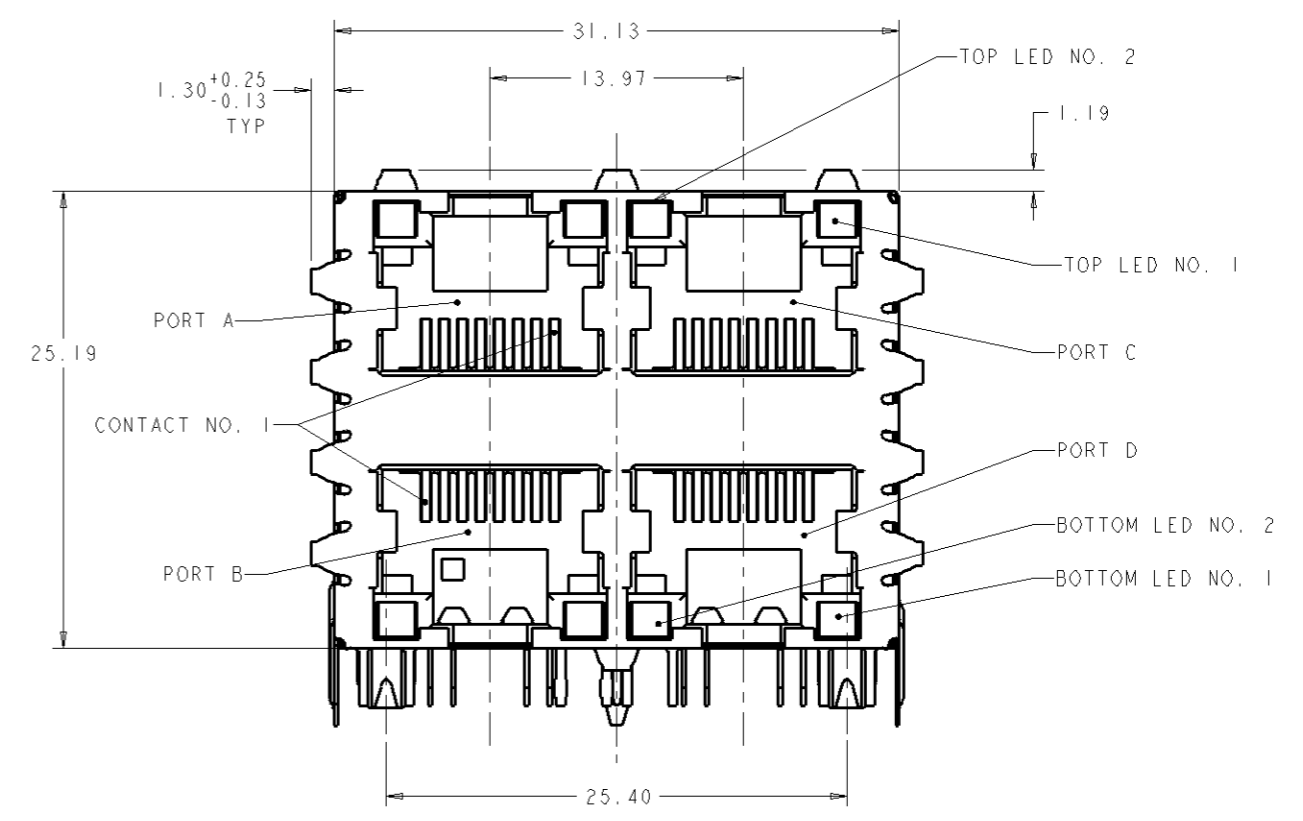
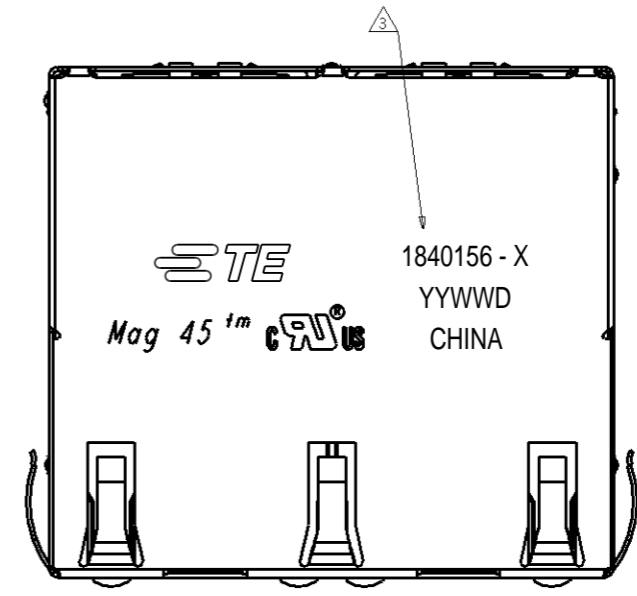
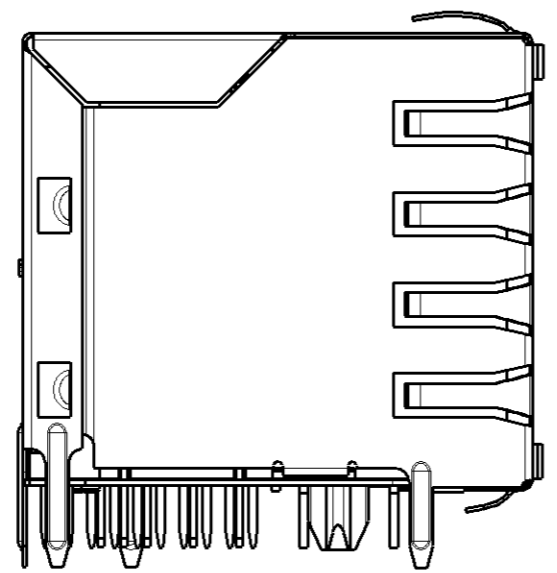
PRODUCT SPEC: 108-2100, APPLICATION SPEC: 108-2100

MATERIAL: SEE NOTES, FINISH: SEE NOTES, WEIGHT: -, SCALE: 4:1, SHEET: 1 OF 4, REV: D

REVISITONS		DATE	BY	APPD
1	SEE SHEET 1			

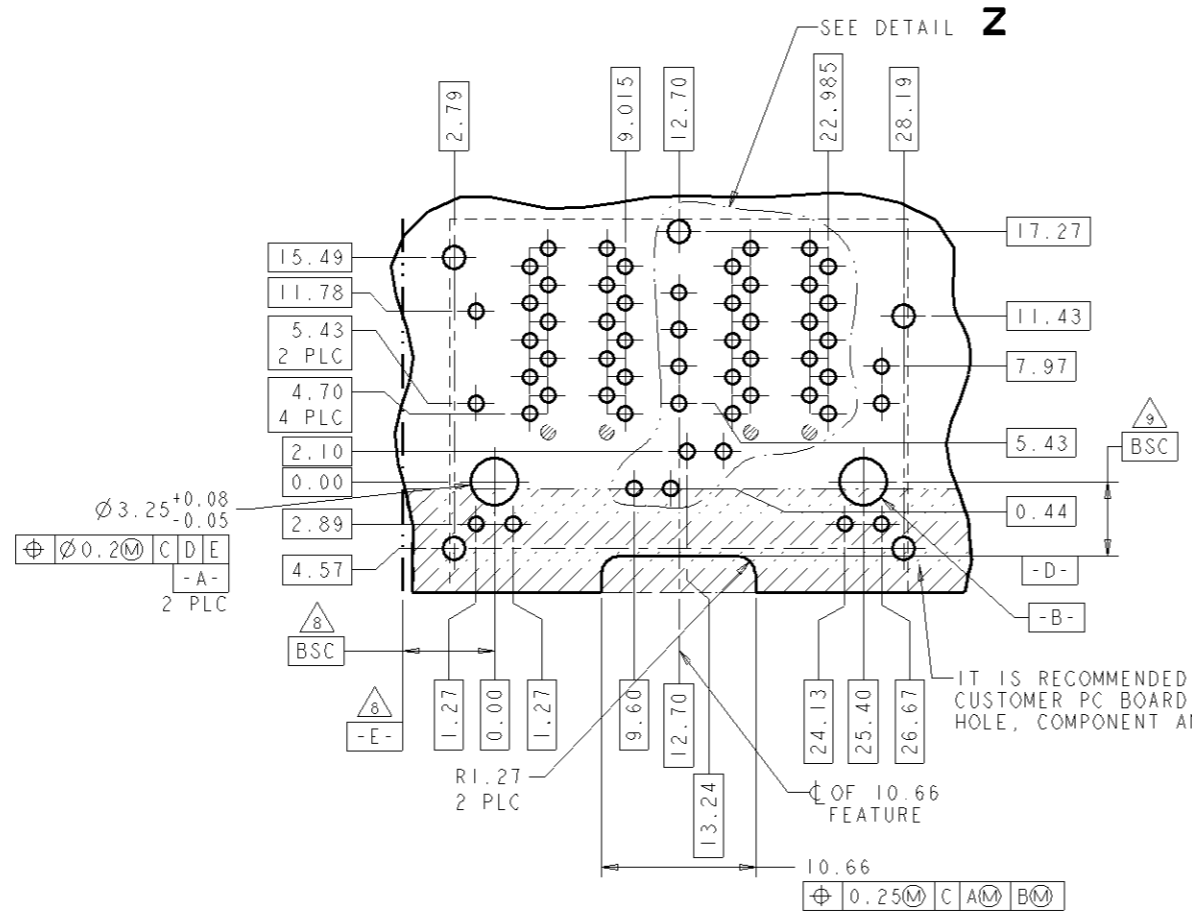


SIDE VIEW SHOWN WITH CUSTOMER PANEL AND PCB FOR LOCATION

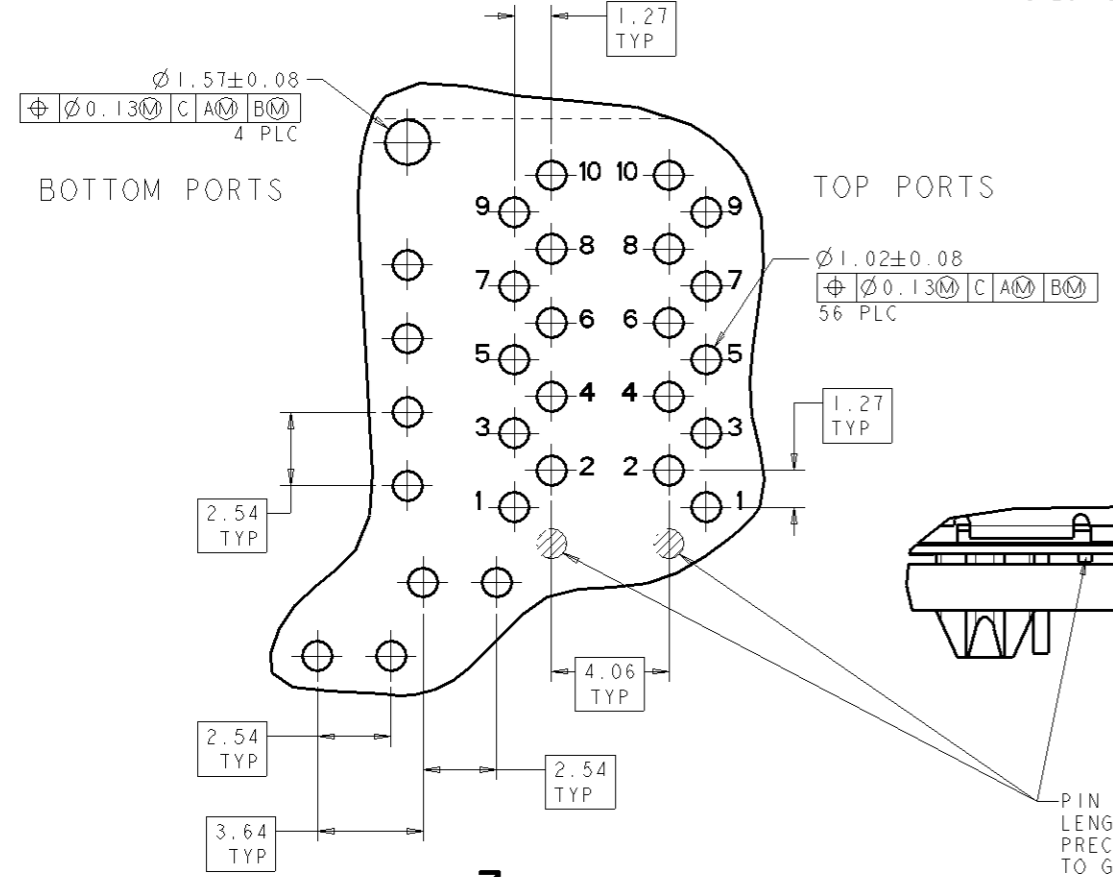


THIS DRAWING IS A CONTROLLED DOCUMENT.		OWN: KEKE YOU 12JUL2006	
DIMENSIONS: mm		CHK: ERIC GE 12JUL2006	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPD: TEDDY XIONG 12JUL2006	NAME: 2X2 MAG45(TM), GIGABIT S8G16 CIRCUIT W/ LEDS, WAVE PANEL, GROUND SHIELD CONTACT PIN 2
0 PLC ±0.25	1 PLC ±0.25	PRODUCT SPEC: 108-2100	APPLICATION SPEC:
2 PLC ±0.25	3 PLC ±0.25	MATERIAL: SEE NOTES	WEIGHT: -
4 PLC ±0.25	5 PLC ±0.25	FINISH: SEE NOTES	SCALE: 5:1
6 PLC ±0.25	7 PLC ±0.25	ANGLE: ±°	SHEET 2 OF 4
8 PLC ±0.25	9 PLC ±0.25	FINISH: SEE NOTES	REV D
10 PLC ±0.25	11 PLC ±0.25	FINISH: SEE NOTES	
12 PLC ±0.25	13 PLC ±0.25	FINISH: SEE NOTES	
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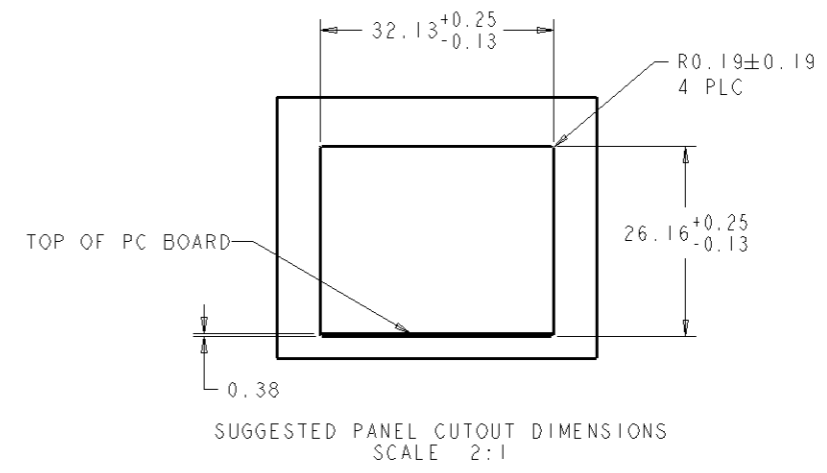
LOC	QTY	REVISIONS			
REV	DATE	DESCRIPTION	DATE	BY	APP'D
AA	00	SEE SHEET 1			



PC BOARD LAYOUT VIEW FROM COMPONENT SIDE



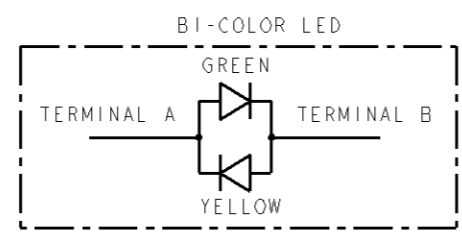
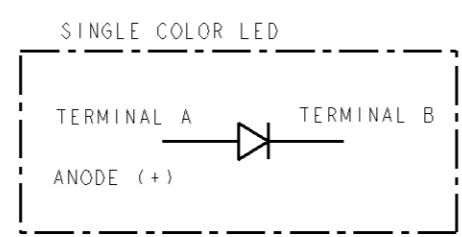
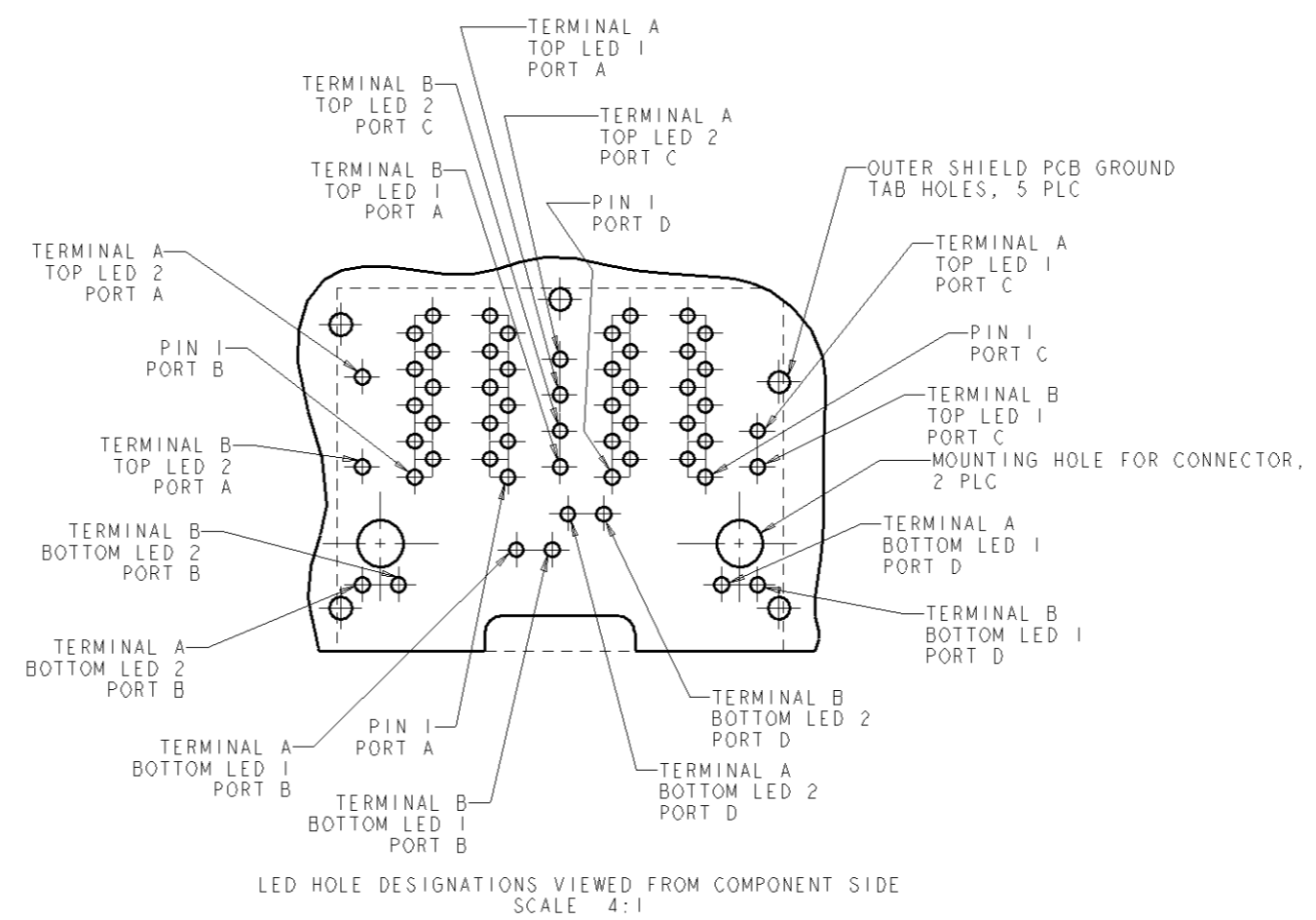
DETAIL Z  
SCALE 8:1



SUGGESTED PANEL CUTOUT DIMENSIONS  
SCALE 2:1

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DRAWN: ERIC GE		CHK: ERIC GE 12JUL2006	NAME: TDDY XIONG	DATE: 12JUL2006
DIMENSIONS: mm		TOLERANCES UNLESS OTHERWISE SPECIFIED:	PRODUCT SPEC: 2X2 MAG45(TM), GIGABIT S8G16 CIRCUIT W/ LEDS, WAVE PANEL, GROUND SHIELD CONTACT PIN 2	APPLICATION SPEC: 108-2100
MATERIAL: SEE NOTES		FINISH: SEE NOTES	SIZE: A	CAGE CODE: 1840156
CUSTOMER DRAWING		SCALE: 4:1	SHEET: 3 OF 4	REV: D

REV. NO.		REVISIONS			
NO.	DATE	DESCRIPTION	DATE	BY	APP'D
AA	00	SEE SHEET 1			



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DIMENSIONS: mm		CHK: ERIC GE 12JUL2006	NAME: TEDDY XIONG	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APP'D: 12JUL2006	PRODUCT SPEC: 2X2 MAG45(TM), GIGABIT S8G16 CIRCUIT W/ LEDS, WAVE PANEL, GROUND SHIELD CONTACT PIN 2	
0 PLC ±0.25		APPLICATION SPEC: 108-2100		
1 PLC ±0.25		SIZE: CAGE CODE: DRAWING NO: A100779C=1840156		
2 PLC ±0.25		RESTRICTED TO: -		
3 PLC ±0.25		SCALE: 4:1 SHEET: 4 OF 4 REV: D		
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