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RELEASED FOR PUBLICATION

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TE CONNECTIVITY

ALL RIGHTS RESERVED.

LOC

AA

DIST

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LTR

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ECO-12-016816

DATE

03JAN2013

OWN

JC

APVD

KZ

SCALE 4:1

S8G56ET GIGABIT CIRCUIT

TOP AND BOTTOM PORTS

C1 = 1000pF, 2kV CAPACITOR

C2 - C3 = 10nF, 50V CAPACITORS

R1-R4 = 75 OHMS, 1/16 W, RESISTORS

PIN DESIGNATIONS

(REPEAT FOR EACH VERTICAL PAIR OF PORTS)

PCB PINS (TOP VIEW, COMP. SIDE)

TOP PORTS

10 09 08 07 06 05 04 03 02 01

BOTTOM PORTS

10 09 08 07 06 05 04 03 02 01

RJ CABLE CONTACTS

TOP PORTS

RJ-8 RJ-1

BOTTOM PORTS

RJ-1 RJ-8

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

ALL PC BOARDS: HIGH TEMP PCB, TG>170°C.

2 MAGNETICS

APPLICATION: 10/100/1000 BASE-T, EXTENDED TEMPERATURE

IMPEDANCE: 100 OHMS

TURNS RATIO (CHIP:CABLE): 1:1 ALL FOUR PAIRS

OPEN CIRCUIT INDUCTANCE (OCL): 350uH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM -40°C TO +85°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 PART NUMBER, DATE CODE AND COUNTRY OF ORIGIN LOCATED IN APPROXIMATE AREA SHOWN.

DATE CODE YY IS YEAR, WW IS WORK WEEK, D IS DAY OF THE WEEK, WITH SUNDAY=1

4 TE CONNECTIVITY LOGO AND AGENCY APPROVAL LOGO, TO BE LOCATED IN APPROXIMATE AREA SHOWN.

5. OPERATING TEMP: FROM -40°C TO +85°C.

6 RJ45 CAVITY CONFORMS TO FCC RULES AND REGULATION PART 68 SUBPART F.

7 INDICATED MAGNETIC CONNECTIONS ARE SYMMETRICAL AND SUPPORT AUTO-MDI/MDIX.

8 DATUM AND BASIC DIMENSION ESTABLISHED BY CUSTOMER.

9 BASIC DIMENSION ESTABLISHED BY CUSTOMER, BUT MAY NOT BE GREATER THAN 5.08mm.

10 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

11. THESE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS, PREHEAT TEMPERATURE IS 120°C TO 160°C, 120 SECONDS TO 180 SECONDS, PEAK SOLDERING TEMPERATURE IS 260°C MAX, 10 SECONDS MAX.

12. WELDING ALL SIGNAL PINS WITH BOTTOM PCB

4.06 GREEN YELLOW GREEN YELLOW 1-1840323-3

3.04 GRN/YEL GRN/YEL GRN/YEL GRN/YEL 1840323-4

3.04 GREEN YELLOW GREEN YELLOW 1840323-3

3.04 YELLOW GREEN GREEN YELLOW 1840323-2

3.04 GREEN GREEN GREEN GREEN 1840323-1

DIM A LED 2 LED 3 LED 1 LED 4 PART NUMBER

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APPROVED BY: LEON HUANG, TONY YUAN, KEITH ZHU

DATE: 12JAN2009

TE CONNECTIVITY

2X2 MAG45(TM), GIGABIT S8G56ET CIRCUIT,WAVE PANEL, GROUND SHIELD,W/LEDs

108-104004

100779

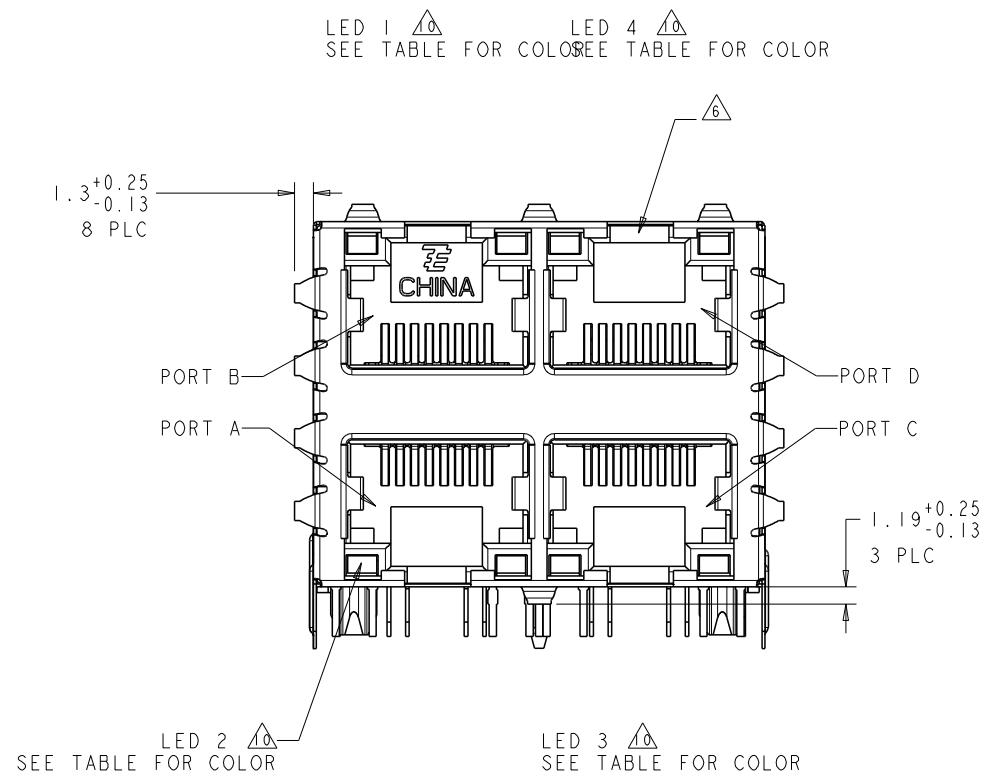
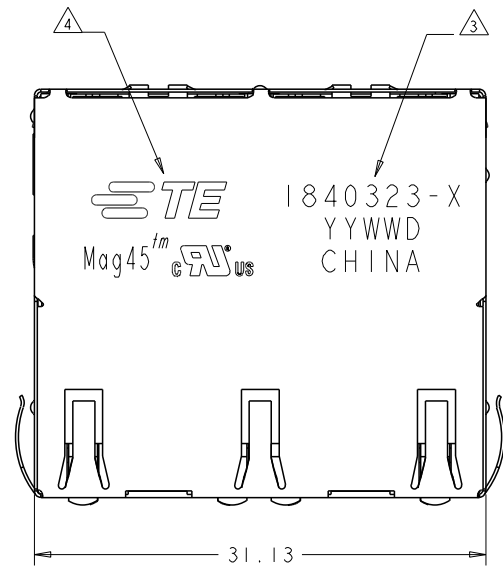
1840323

SCALE 4:1

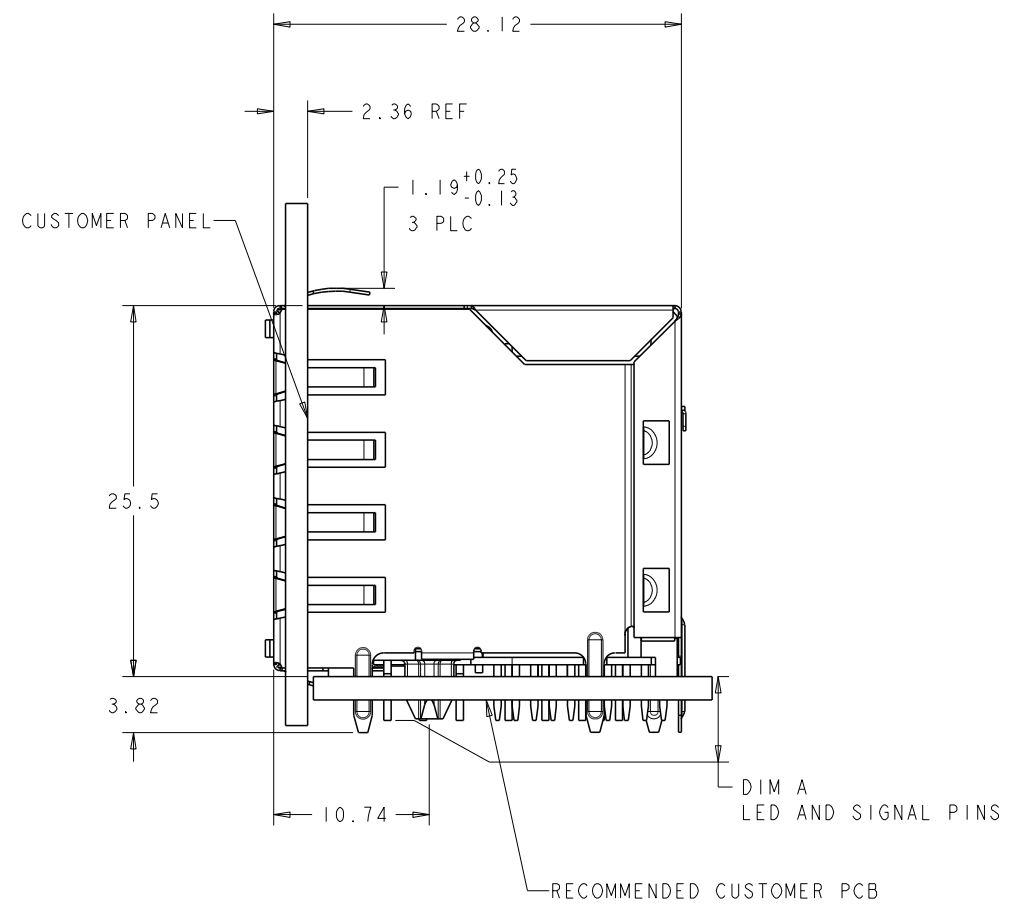
SHEET 1 OF 4

REV 5

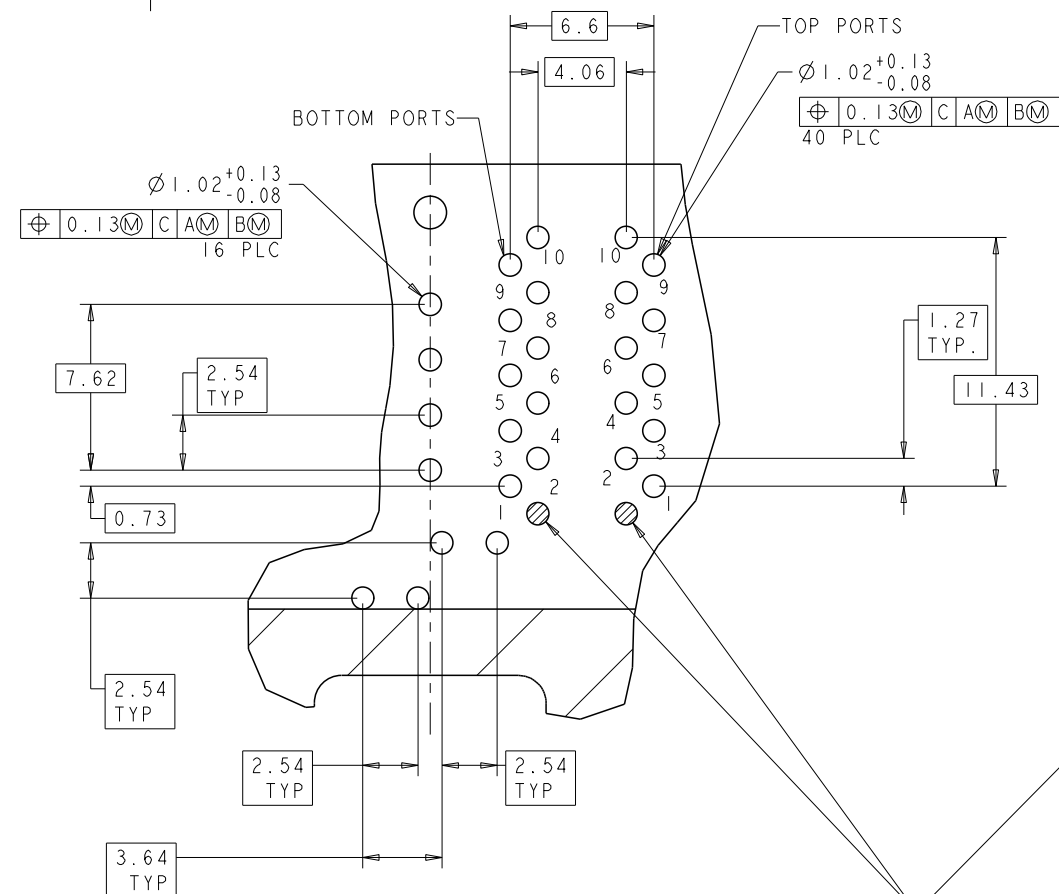
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				-	-	SEE SHEET 1	-



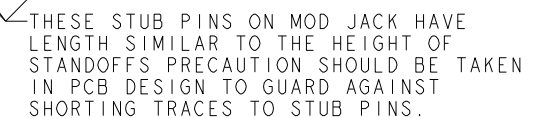
SCALE 4:1






THIS DRAWING IS A CONTROLLED DOCUMENT.				DWG 12JAN2009 CHK TONY YUAN 12JAN2009 APVD KEITH ZHU 12JAN2009				TE Connectivity			
DIMENSIONS: mm				TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ±0.25 4 PLC ±0.25 ANGLES ±2				NAME 2X2 MAG45(TM), GIGABIT S8G56ET CIRCUIT, WAVE PANEL, GROUND SHIELD, W/LEDs			
MATERIAL TE CONNECTIVITY				FINISH				SIZE CASE CODE DRAWING NO A100779C=1840323			
CUSTOMER DRAWING				WEIGHT				RESTRICTED TO			
				SCALE 4:1				SHEET 2 OF 4			
								REV 5			

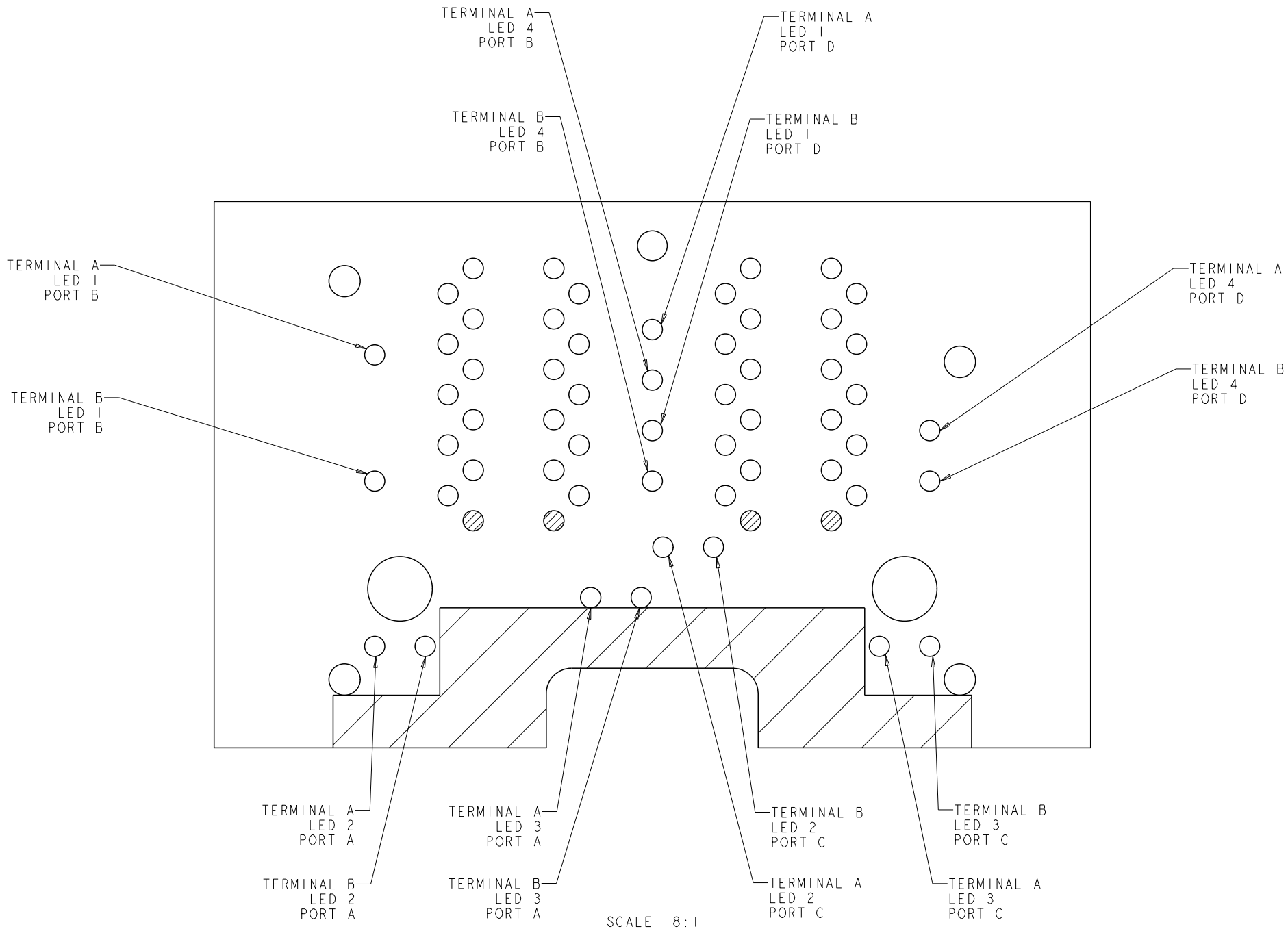


RECOMMENDED PC BOARD LAYOUT
(VIEW FROM COMPONENT SIDE)
SCALE 4:1

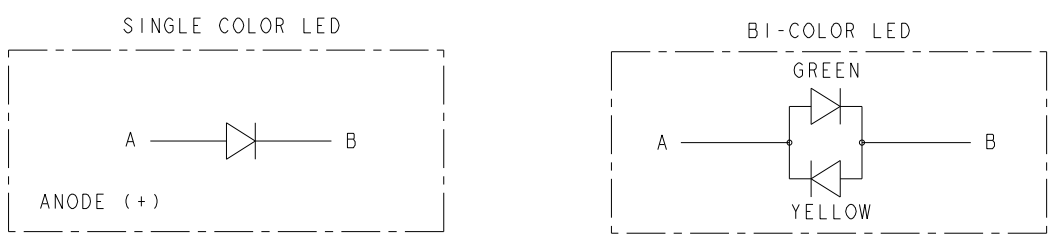


DETAIL A
SCALE 6:1

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN 12JAN2009 LEON HUANG CHK 12JAN2009 TONY YU		 TE Connectivity	
DIMENSIONS: (mm)		TO TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 P L C ±0.25 1 P L C ±0.25 2 P L C ±0.25 3 P L C ±0.25 4 P L C ±0.25 ANGLES ±2		NAME 2X2 MAG45(TW), GIGABIT S8G56ET CIRCUIT, WAVE PANEL, GROUND SHIELD, W/LDS	
		PRODUCT SPEC 108-104004 APPLICATION SPEC		SIZE CASE CODE DRAWING NO A1 00779 C= 1840323	
MATERIAL TE CONNECTIVITY		FINISH 		RESTRICTED TO -	
CUSTOMER DRAWING					
				SCALE 4:1 SHEET 3 OF 4 REV -	



SCALE 8:1



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DWN
LEON HUANG
CHK
TONY YUAN
APVD
KEITH ZHU

12JAN2009
12JAN2009
12JAN2009

DIMENSIONS:
mm

0 PLC ±0.25
1 PLC ±0.25
2 PLC ±0.25
3 PLC ±0.25
4 PLC ±0.25
ANGLES ±2

TOLERANCES UNLESS OTHERWISE SPECIFIED:

FINISH
TE CONNECTIVITY

NAME
2X2 MAG45(TM), GIGABIT S8G56ET
CIRCUIT,WAVE PANEL,
GROUND SHIELD,W/LEDs

PRODUCT SPEC
108-104004

APPLICATION SPEC

SIZE
A100779

CAGE CODE
C=1840323

DRAWING NO

RESTRICTED TO

WEIGHT
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CUSTOMER DRAWING

SCALE
4:1

SHEET
4

OF
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REV
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