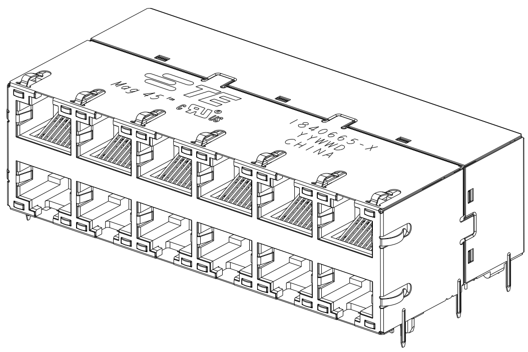
LOC	DIST
AA	00

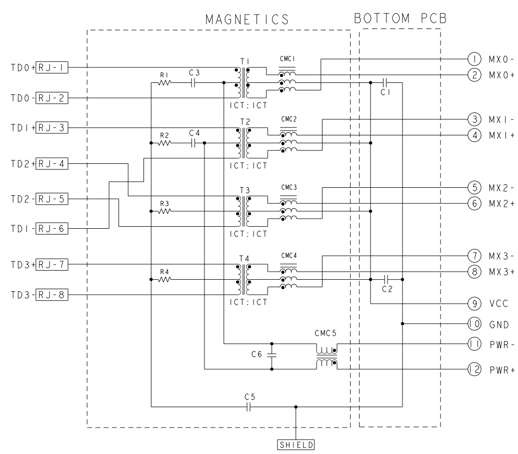
REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	3	SEE FINAL SHEET	07DEC2011	RL	KZ
	A	ECO-11-024592	20DEC2011	TR	KZ
	B	ECO-12-003830	07FEB2012	RL	KZ



S9HG104 GIGABIT PoE PLUS CIRCUIT 2 7

TOP AND BOTTOM PORTS



C1-C2=10nF, 50V, CAPACITORS
C3-C4=22nF, 100V,CAPACITORS
C5=1000pF,2kV,CAPACITOR
C6=68nF,100V,CAPACITOR
R1-R4=75 OHMS,1/16W,RESISTORS

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 1.27um MIN GOLD OR WITH SELECT 0.05um MIN GOLD OVER 0.76um MIN PALLADIUM-NICKEL 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, PoE PLUS
IMPEDANCE: 100ohms
TURNS RATIO (CHIP:CABLE): 1:1 ALL FOUR PAIRS
OPEN CIRCUIT INDUCTANCE (OCL):
ALL CHANNELS 350 uH MIN @ 100KHz, 0.1 VRMS WITH 8mA DC BIAS FROM 0°C TO 70°C, 120 uH min @ 100KHz, 0.1 VRMS WITH 19 mA DC BIAS FROM 0°C TO 70°C, ACROSS RJ1-RJ2 & RJ3-RJ6.
ALL FOUR PAIRS BI-DIRECTIONAL
POE CURRENT: 600mA DC MAX
PERFORMANCE @25°C:
INSERTION LOSS (IL): 1.1dB MAX FROM 1.0MHz TO 100MHz
RETURN LOSS (RL): 18dB MIN FROM 1.0MHz TO 40MHz
12-20LOG(f/80)dB MIN FROM 40.1MHz TO 100MHz
CROSSTALK ATTENUATION: 35dB MIN FROM 1.0MHz TO 40MHz
33-20LOG(f/50)dB MIN FROM 40.1MHz TO 100MHz
COMMON MODE REJECTION RATIO (CMRR):
30dB MIN FROM 1.0MHz TO 100MHz
ISOLATION VOLTAGE: 2250VDC(MAX) FOR 60 SECONDS WITH A RISE TIME OF 500V/SEC AND WITH ALL PORTS CONNECTED.

3 PART NUMBER, DATE CODE AND COUNTRY OF ORIGIN LOCATED IN APPROXIMATE AREA SHOWN
DATE CODE: YYWWD WHERE "YY" IS YEAR, "WW" IS WORK WEEK, "D" IS DAY OF WEEK, WITH SUNDAY =1

4 TE CONNECTIVITY LOGO AND AGENCY APPROVAL LOGO ARE LOCATED IN APPROXIMATE AREA SHOWN.

5. OPERATING TEMP: FROM 0°C TO 70°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 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 (ID): 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, PEAK TEMPERATURE 260°C FOR 5 SECONDS

3.04	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	1840665-1
DIM A	BOTTOM LED NO. 2	BOTTOM LED NO. 1	TOP LED NO. 2	TOP LED NO. 1	PART NO.

THIS DRAWING IS A CONTROLLED DOCUMENT.

DWN	RICK LI/EVAN MA 03NOV2011
CHK	TONY YUAN 03NOV2011
APVD	KEITH ZHU 03NOV2011
PRODUCT SPEC	108-104004
APPLICATION SPEC	-
WEIGHT	-
DIMENSIONS:	mm
TOLERANCES UNLESS OTHERWISE SPECIFIED:	0 PLC ±- ; 1 PLC ±- ; 2 PLC ±0.25 ; 3 PLC ±- ; 4 PLC ±- ; ANGLES ±-
MATERIAL	SEE NOTE 1
FINISH	SEE NOTE 1

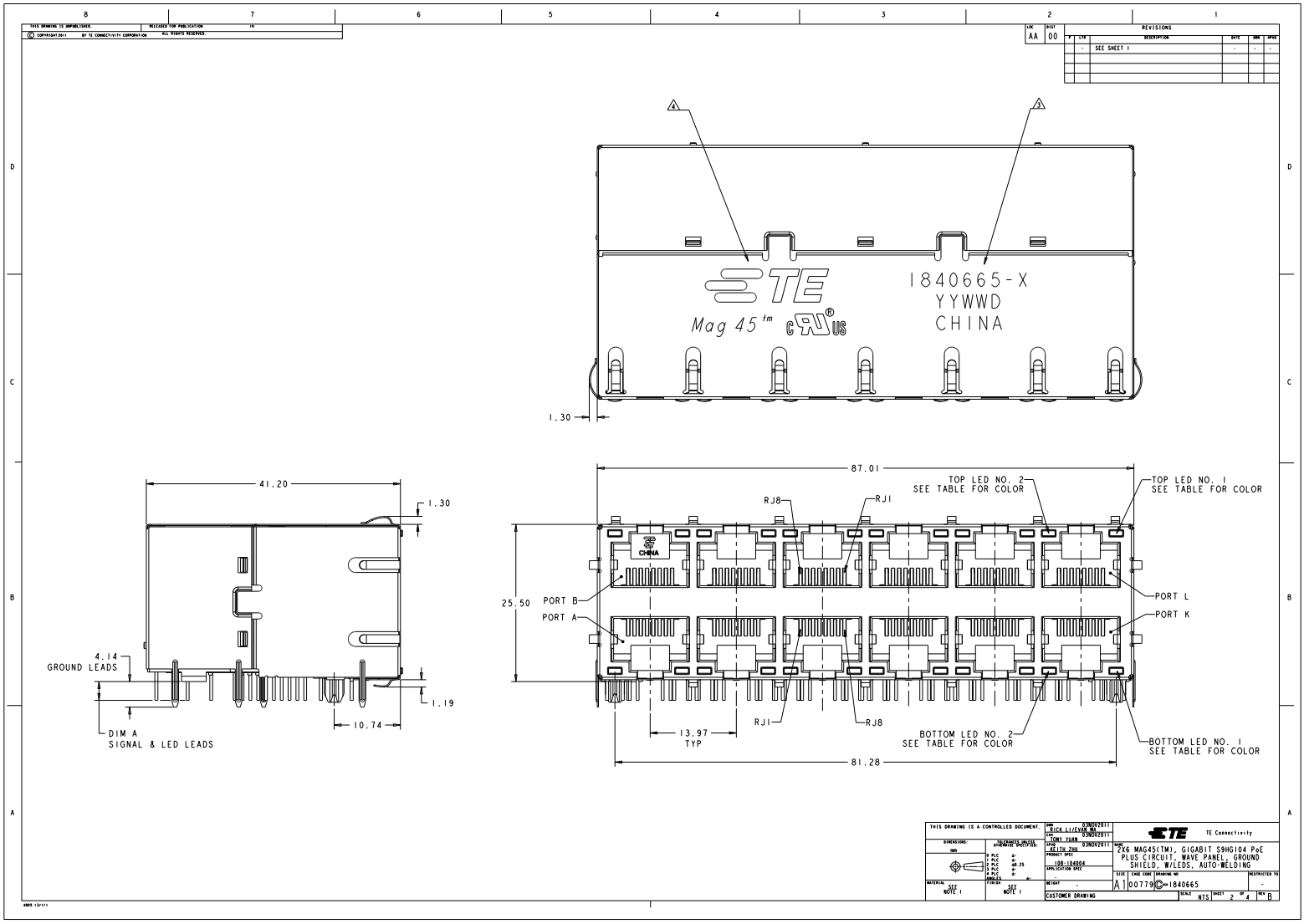
TE Connectivity

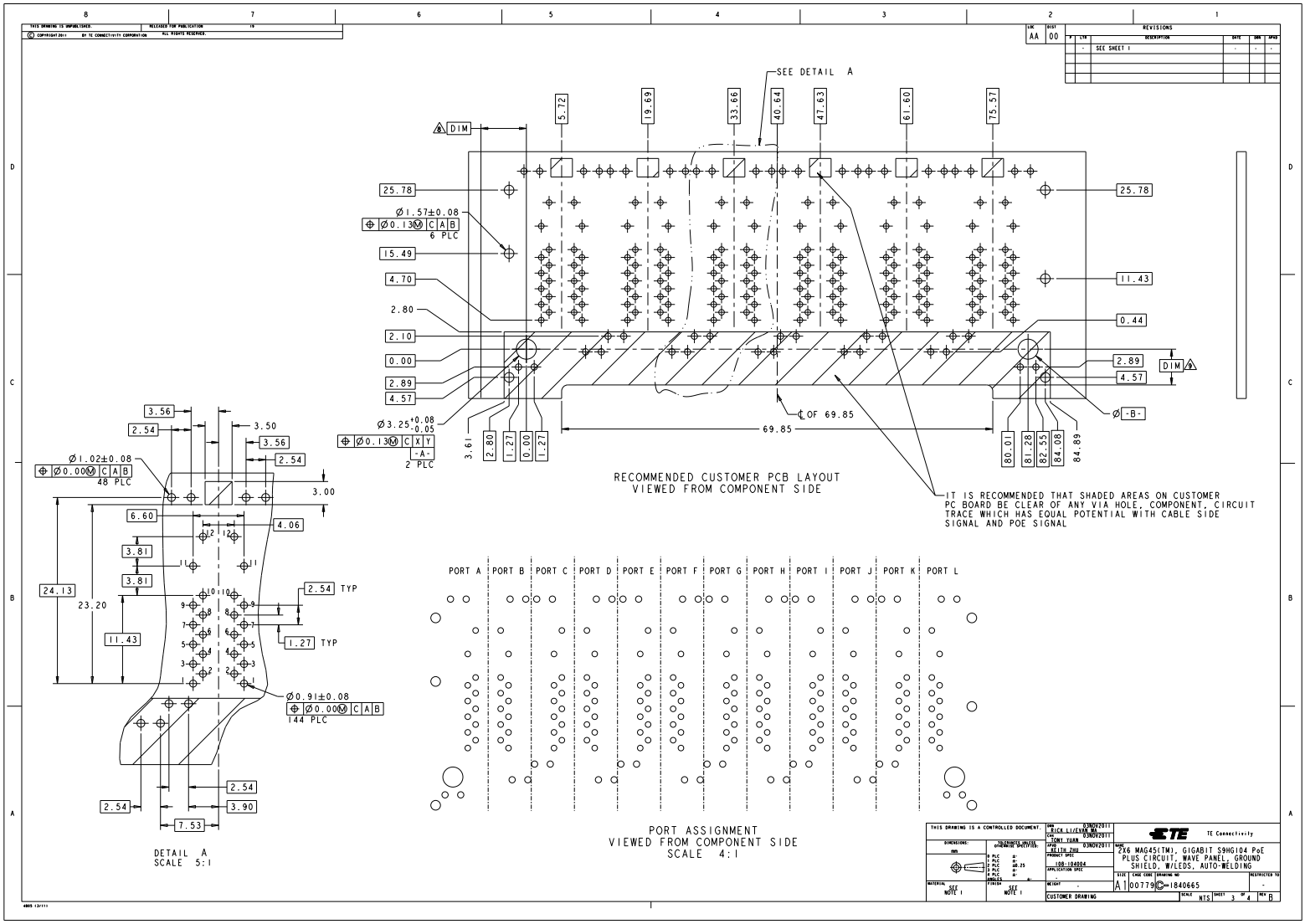
NAME: 2X6 MAG45(TM), GIGABIT S9HG104 PoE PLUS CIRCUIT, WAVE PANEL, GROUND SHIELD, W/LEDS, AUTO-WELDING

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-1840665	-

CUSTOMER DRAWING

SCALE	SHEET	REV
NTS	1 OF 4	B

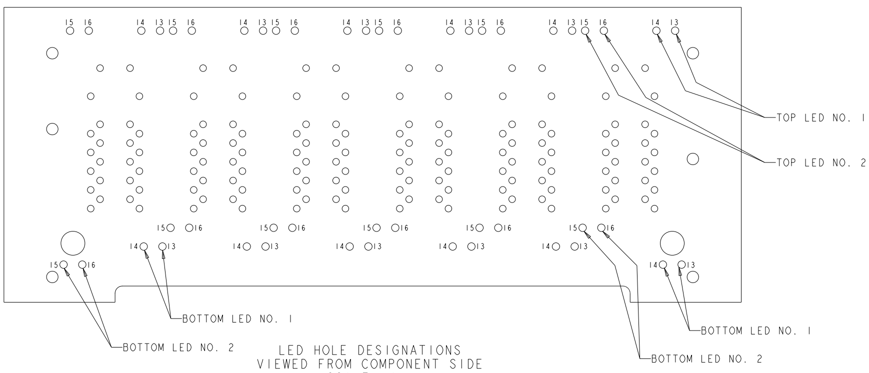




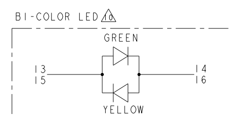
LOC	DIST
AA	00

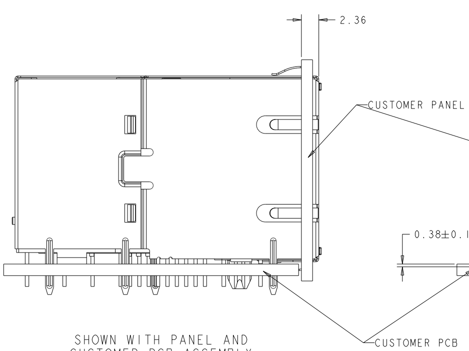
REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-

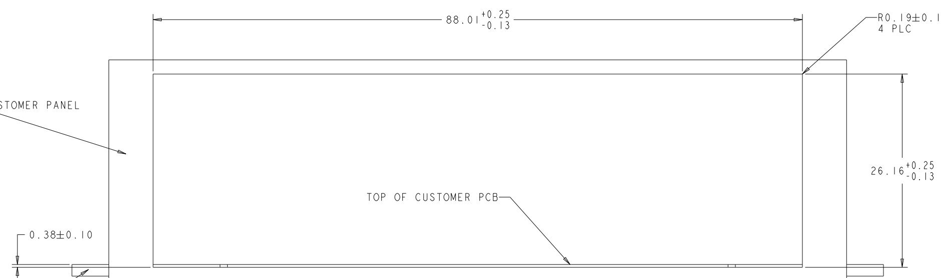


LED HOLE DESIGNATIONS
VIEWED FROM COMPONENT SIDE
SCALE 4:1





SHOWN WITH PANEL AND
CUSTOMER PCB ASSEMBLY



SUGGESTED PANEL CUTOUT DIMENSIONS

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN RICK LI/EVAN MA 03NOV2011	TE Connectivity
		CHK TONY YUAN 03NOV2011	
DIMENSIONS: mm	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±- ; 1 PLC ±- ; 2 PLC ±0.25 ; 3 PLC ±- ; 4 PLC ±- ; ANGLES ±-	APVD KEITH ZHU 03NOV2011	NAME 2X6 MAG45(TM), GIGABIT S9HG104 PoE PLUS CIRCUIT, WAVE PANEL, GROUND SHIELD, W/LEDS, AUTO-WELDING
		PRODUCT SPEC 108-104004	
		APPLICATION SPEC -	SIZE A1 · CAGE CODE 00779 · DRAWING NO C-1840665 · RESTRICTED TO -
MATERIAL SEE NOTE 1	FINISH SEE NOTE 1	WEIGHT -	
		CUSTOMER DRAWING	SCALE NTS · SHEET 4 OF 4 · REV B