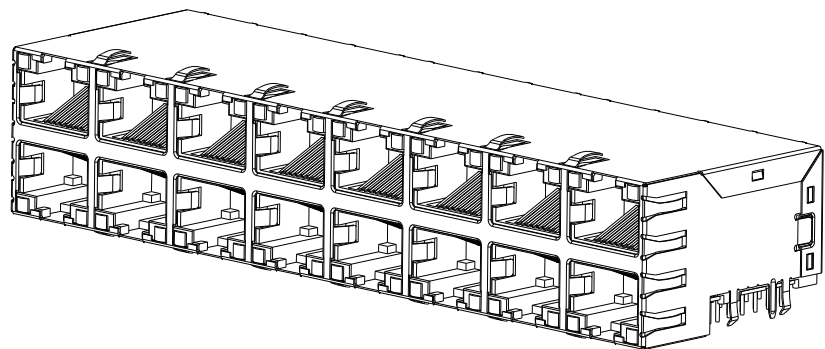
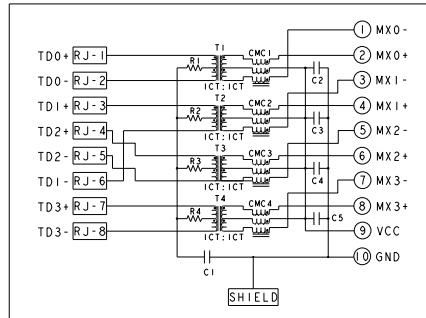


REV	DATE	DESCRIPTION	BY	CHK	APP
C	REV PER ECO-10-030493		2008011	DP	KZ
D	ECO-10-025821		1408012	ENS	KZ

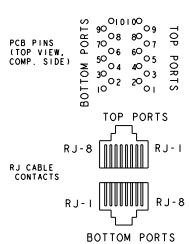


S8GI6 GIGABIT CIRCUIT
 TOP AND BOTTOM PORTS



C1 = 1000pF, 3kV
 C2 - C5 = 470pF, 10%, 50V
 R1-R4 = 75 OHMS, 1/16W

PIN DESIGNATIONS
 (REPEAT FOR EACH VERTICAL PAIR OF PORTS)



- △ MATERIALS:
 - HOUSING: THERMOPLASTIC, BLACK, 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, PLATED WITH 1.27um MIN OVERALL NICKEL UNDERPLATE, SELECTIVE 1.27um MIN GOLD AT MATING INTERFACE AND 2.54um MIN MATTE TIN ON SOLDER TAILS.
 - LED: DIFFUSED EPOXY LENS, CARBON STEEL LEAD FRAME LEADS, PREPLATED WITH 2.03um MIN SILVER OVER 1.02um MIN NICKEL OVER 1.02um MIN COPPER UNDERPLATE, POST PLATED WITH 2.54um MIN MATTE TIN AND/OR 2.54um MIN SAC SOLDER DIP OR PURE TIN SOLDER DIP.
- △ MAGNETICS:
 - APPLICATION: 10/100/1000 BASE-T
 - IMPEDANCE: 100 ohm
 - TURNS RATIO (CRIP:CABLE): 1:1 ALL FOUR PAIRS
 - OPEN CIRCUIT INDUCTANCE (OCL): 350nH MIN @100kHz, 0.1VRMS, 8mA DC BIAS FROM 0°C TO 70°C, ALL FOUR PAIRS
 - RISE TIME (10%-90%): 2.5ns TYPICAL
 - 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(1/80)dB MIN FROM 40.1MHz TO 100MHz
 - CROSSTALK ATTENUATION: 35dB MIN FROM 0.5MHz TO 40MHz
 - 33-20LOG(1/50)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 a and b.
- △ PART NUMBER, DATE CODE AND COUNTRY OF ORIGIN ARE LOCATED IN THE APPROXIMATE AREA SHOWN.
- △ TYCO ELECTRONICS LOGO AND AGENCY APPROVAL LOGO ARE LOCATED IN THE APPROXIMATE AREA SHOWN.
- △ RJ45 CAVITIES CONFORM TO FCC RULES AND REGULATIONS PART 68 SUBPART F.
- △ LED ARE DRIVEN WITH CONSTANT CURRENT AT APPROX. 20mA
 DOMINANT WAVELENGTH (λD)
 GREEN, 568nm TYP at IF=20mA
 YELLOW, 588nm TYP at IF=20mA
 FORWARD VOLTAGE (VF):
 GREEN, 2.2V TYP at IF=20mA
 YELLOW, 2.1V TYP at IF=20mA
- △ INDICATED MAGNETIC CONNECTIONS ARE SYMMETRICAL AND SUPPORT AUTO-MDI/MDIX.
- 8 OPERATING TEMPERATURE: FROM 0°C TO 70°C
- 9 THE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS.
 PEAK TEMPERATURE 265 °C MAX, 10 SECONDS MAX.

DIM A	BOTTOM LED 2 (LEFT)	BOTTOM LED 1 (RIGHT)	TOP LED 2 (LEFT)	TOP LED 1 (RIGHT)	REAR PCB GND TABS	PART NUMBER
2.50	GREEN	YELLOW	GREEN	YELLOW	7	1840215-5
3.30	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	7	1840215-4
3.30	YELLOW	GREEN	GREEN	YELLOW	7	1840215-3
3.30	GREEN	YELLOW	GREEN	YELLOW	7	1840215-2
3.30	GREEN	GREEN	GREEN	GREEN	7	1840215-1

THIS DRAWING IS A CONTROLLED DOCUMENT

DATE 10/15/2008

TE Connectivity

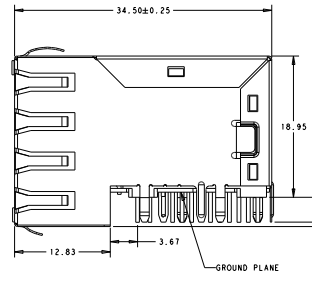
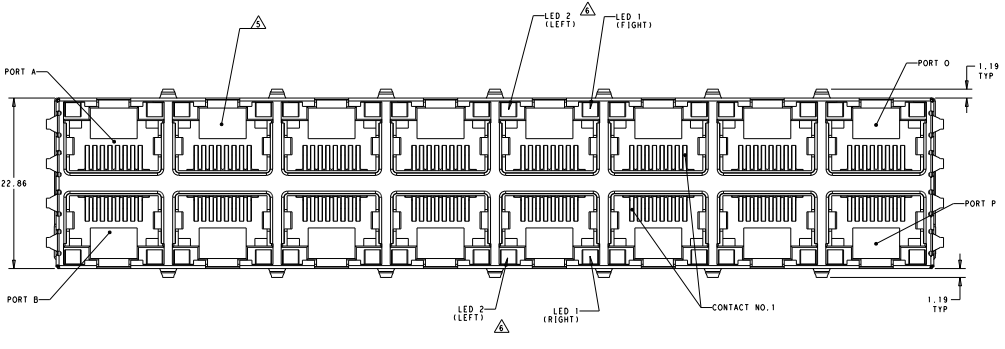
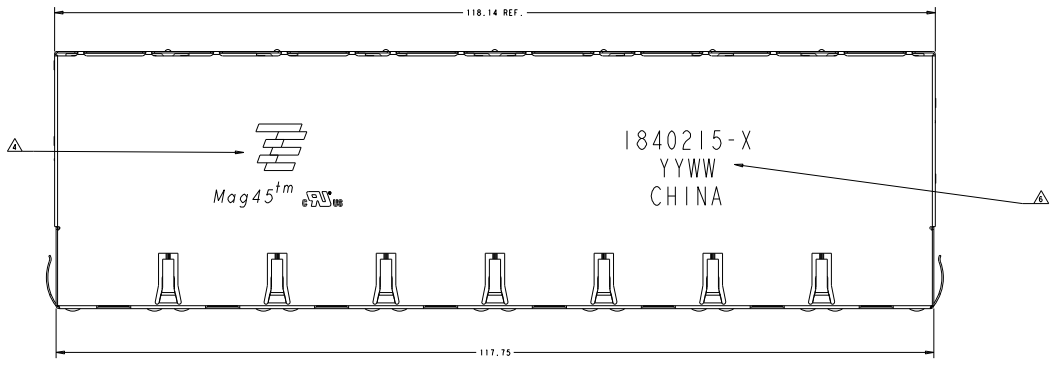
278 MAG451 (M) MODULAR JACK, OFFSET SHIELDING

S8GI6 GIGABIT CIRCUIT, WAVE SOLDERING SHIELDED, WAVE PANEL GROUND TABS

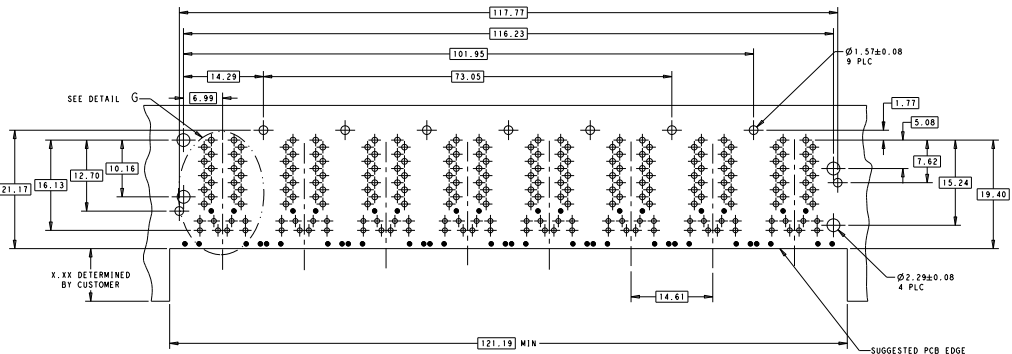
REV: A | 10/07/09 | 1840215

CUSTOMER DRAWING

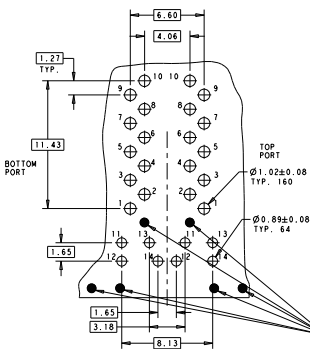
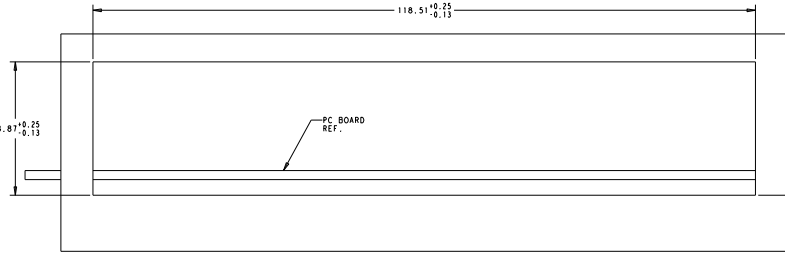
REV	DATE	DESCRIPTION	BY	CHK	APP
AA	00	SEE SHEET 1			



THIS DRAWING IS A CONTROLLED DOCUMENT		DATE TO	15SEP2008	 TE Connectivity
REVISED BY		15SEP2008		
APPROVED BY 	CHECKED BY 	DESIGNED BY 	DRAWN BY 	2x8 MAG45™, MODULAR JACK, OFFSET SMD'S GIGABIT CIRCUIT, WAILED'S SHIELDED, WAVE PANEL GROUND TABS
PART NO. 1840215-X	REV. NO. 00	DATE 15SEP2008	DRAWN 1840215	PART NO. 1840215
CUSTOMER DRAWING				SCALE 4:1

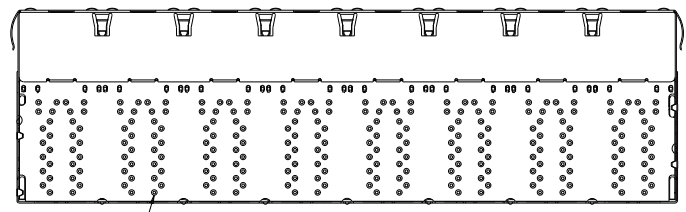


RECOMMENDED PC BOARD LAYOUT VIEW FROM COMPONENT SIDE



DETAIL G SCALE 6:1

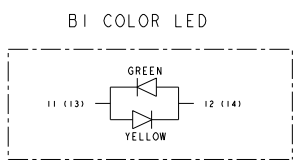
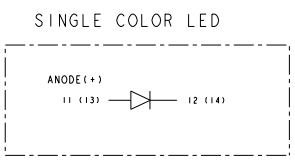
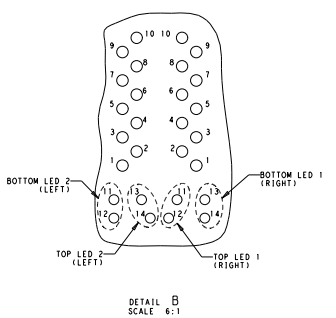
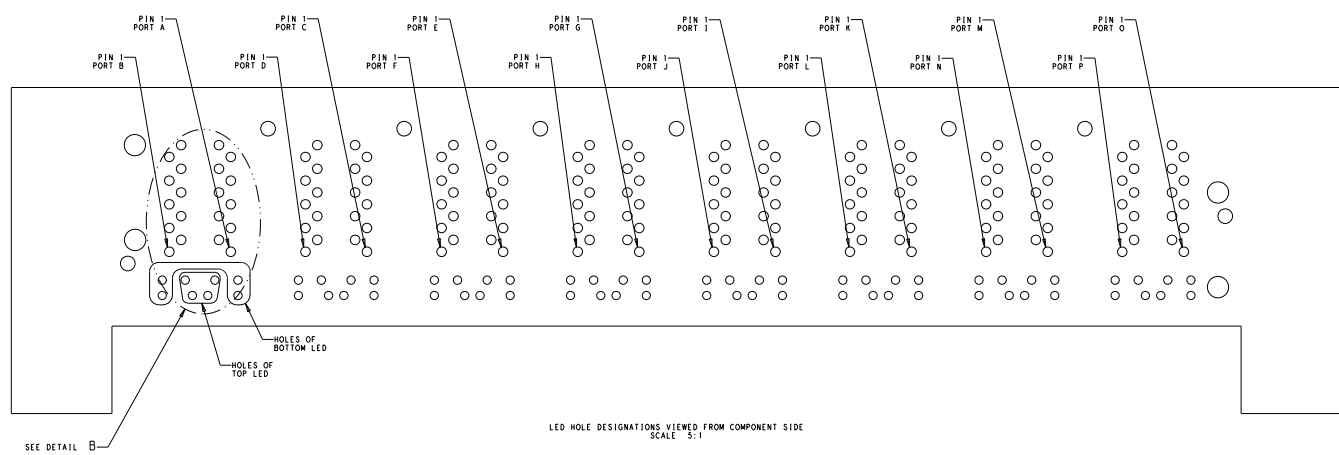
PIN NO. BOTTOM LED'S PIN ON MOD JACK AND BOTTOM PCB ARE STUB PINS WITH LENGTH SIMILAR TO PCB STANDOFF HEIGHT PRECAUTIONS SHOULD BE TAKEN IN PCB DESIGN TO GUARD AGAINST SHORTING TRACES TO STUB PINS



ALL THE SIGNAL PINS MUST BE SOLDERED WITH BOTTOM PCB

THIS DRAWING IS A CONTROLLED DOCUMENT		DATE 10/15/2008	TE Connectivity
DESIGNER	APPROVED	DATE 10/15/2008	TE Connectivity
REV. AA	REV. AA	DATE 10/15/2008	TE Connectivity
DESCRIPTION		278 MAG451M, MODULAR JACK, OFFSET	TE Connectivity
PART NO.		3006-1840215	TE Connectivity
REV. AA		DATE 10/15/2008	TE Connectivity
CUSTOMER DRAWING		A100779	TE Connectivity

REVISIONS				
REV	DATE	DESCRIPTION	BY	CHK
AA	00	SEE SHEET 1		



THIS DRAWING IS A CONTROLLED DOCUMENT		DATE TO: 15SEP2008	TE Connectivity	
DRAWN BY: JENNIS CAHILL		DATE: 15SEP2007	TE Connectivity	
CHECKED BY: JENNIS CAHILL		DATE: 15SEP2007	TE Connectivity	
APPROVED BY: JENNIS CAHILL		DATE: 15SEP2007	TE Connectivity	
PART NUMBER: 18402215		278 MAG 451 (M) - MODULAR JACK, OFFSET		
DESCRIPTION: 18402215		SIGNALS GIGABIT CIRCUIT, WAILED'S SHIELDED, WAVE PANEL GROUND TABS		
REV: A		DATE: 10/07/09	REV: 1	BY: D
CUSTOMER DRAWING		SCALE: 1:1		