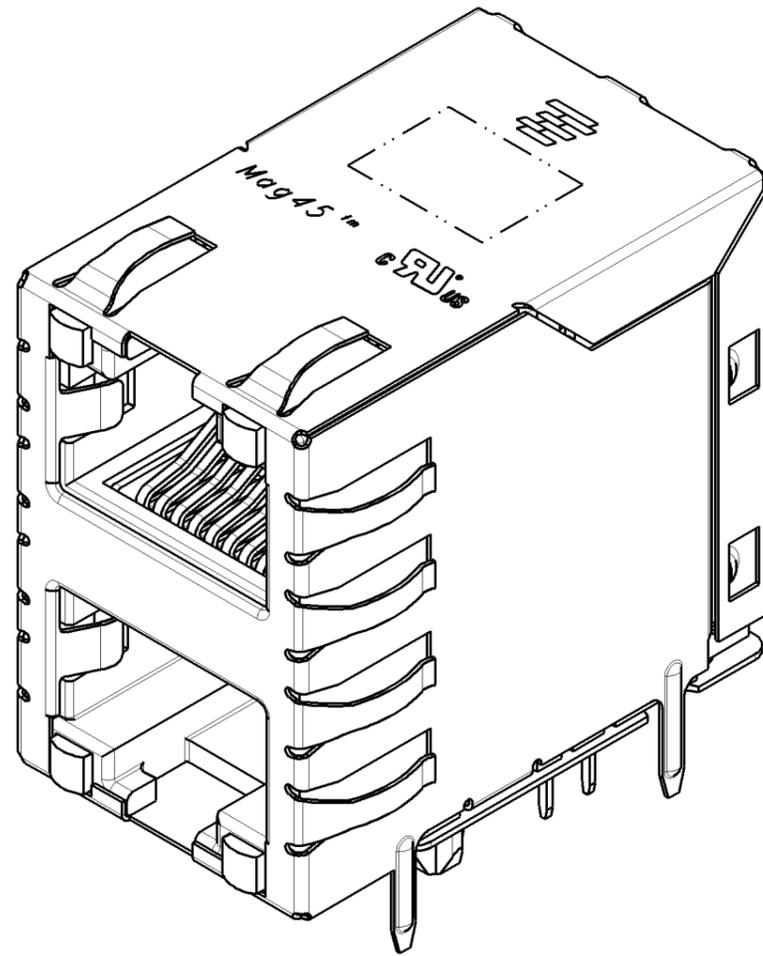


REVISITONS		DATE	BY	APPD
F	ECO-08-020207	19AUG2008	PL	TX
G	ECO-08-027855	03NOV2008	RO	TX



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

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. PART NUMBER, DATE CODE AND COUNTRY OF ORIGIN
 LOCATED IN APPROXIMATE AREA SHOWN

4. AGENCY APPROVAL LOGO, TYCO ELECTRONICS LOGO AND PRODUCT LOGO
 TO BE 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. 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): LOW WAVELENGTH GREEN (LWG) 557 nm TYP. @ IF=20mA
 FORWARD VOLTAGE (VF): LOW WAVELENGTH GREEN 2.2V TYP. @ IF=20mA
 DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP. @ IF=20mA
 FORWARD VOLTAGE (VF): YELLOW 2.1V TYP. @ IF=20mA
 DOMINANT WAVELENGTH (λD): ORANGE 605 nm TYP. @ IF=20mA
 FORWARD VOLTAGE (VF): ORANGE 2.1V TYP. @ IF=20mA

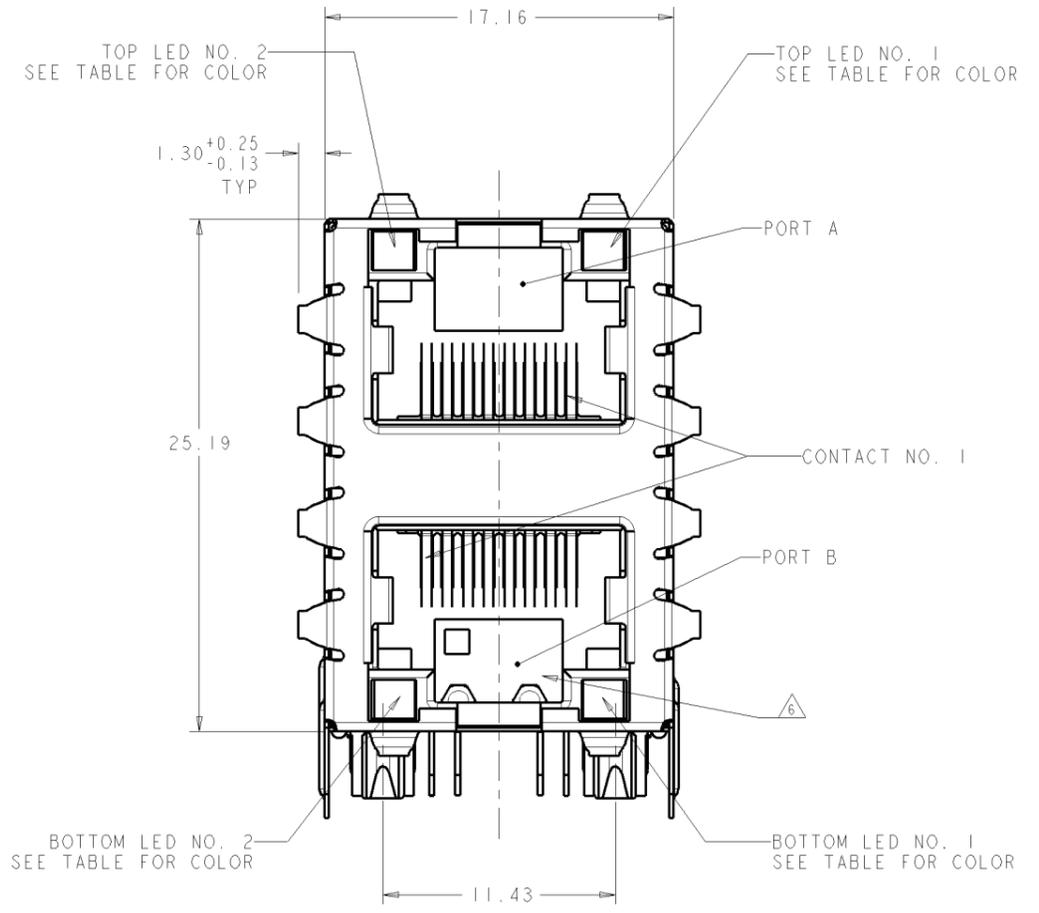
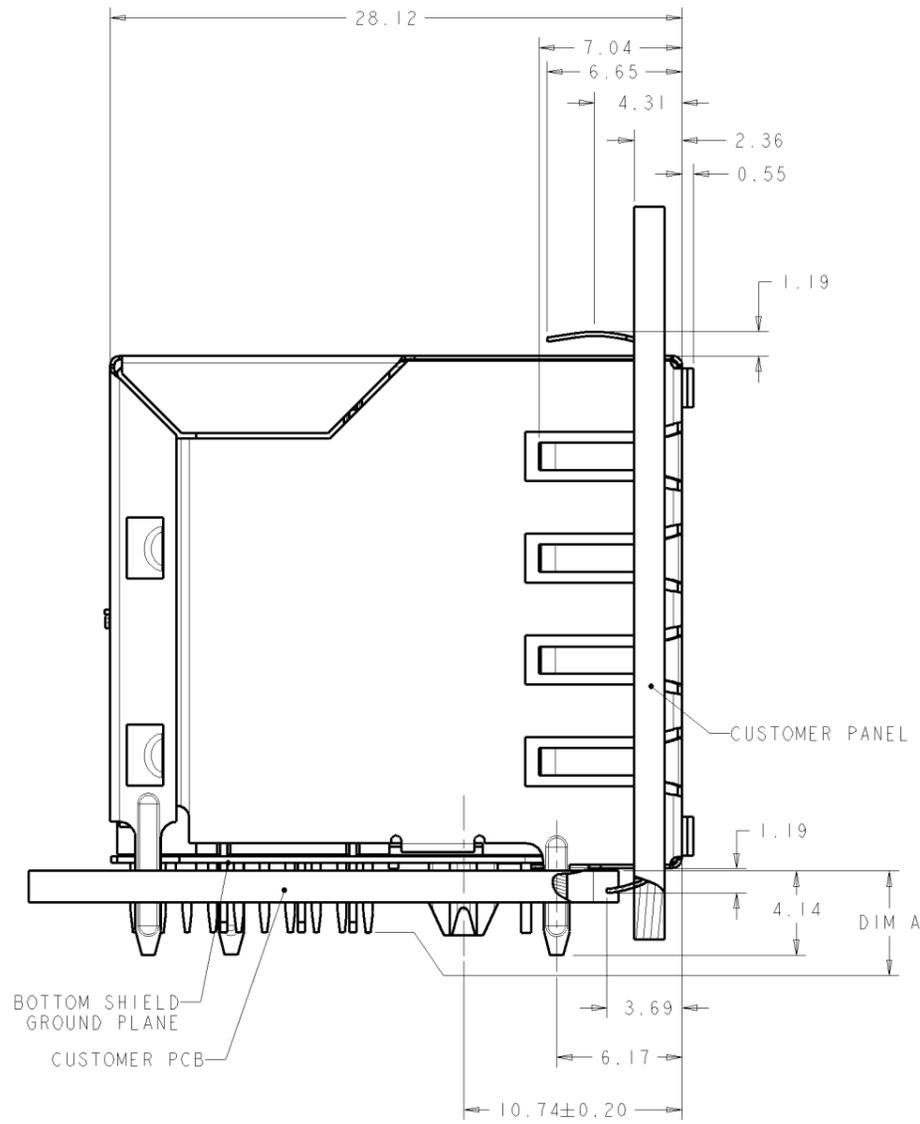
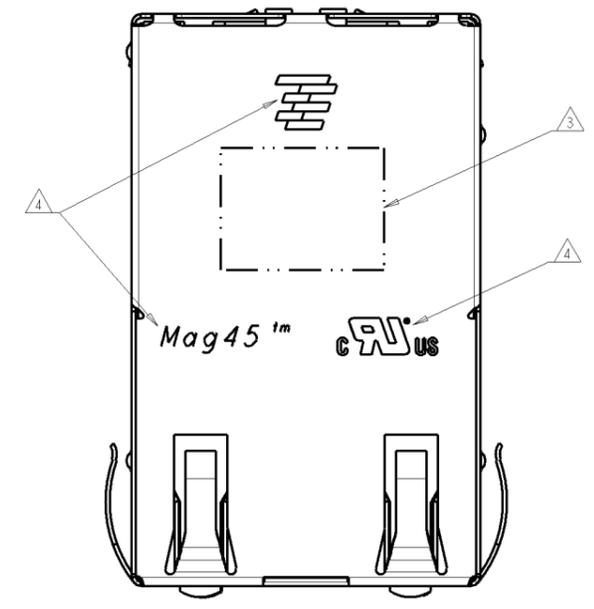
11. THESE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS, PEAK SOLDERING TEMPERATURE 260°C MAX,
 10 SECONDS MAX.

3.04	LWG/YEL	LWG/YEL	LWG/YEL	LWG/YEL	9-1840161-4
3.04	ORANGE	GRN/ORA	ORANGE	GRN/ORA	4-1840161-4
4.06	GRN/YEL	GRN/YEL	GRN/YEL	GRN/YEL	1-1840161-4
3.04	GREEN	GRN/YEL	GREEN	GRN/YEL	1840161-8
3.04	GRN/ORA	GREEN	GRN/ORA	GREEN	1840161-6
3.04	GRN/YEL	GREEN	GRN/YEL	GREEN	1840161-5
3.04	GRN/YEL	GRN/YEL	GRN/YEL	GRN/YEL	1840161-4
3.04	GREEN	YELLOW	GREEN	YELLOW	1840161-3
3.04	YELLOW	GREEN	GREEN	YELLOW	1840161-2
3.04	GREEN	GREEN	GREEN	GREEN	1840161-1
DIM A	BOTTOM LED NO. 2	BOTTOM LED NO. 1	TOP LED NO. 2	TOP LED NO. 1	PART NUMBER

NOT the LATEST REVISION

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 ±0.5°	DATE: 26SEP2006 CHK: KEKE YOUTH ENR: DENNIS CHEN APVD: TUDY XIONG PRODUCT SPEC: 108-2100 APPLICATION SPEC:	Tyco Electronics Chongqing, DC, China NAME: (X) MAG45(TM), 616ABT S8G16 CIRCUIT WAVE PANEL, GROUND SHIELD, W/LEDS CONTACT PIN 2
MATERIAL: SEE NOTE 1	FINISH: SEE NOTE 1	WEIGHT: -	SIZE: A 00779 C=1840161
CUSTOMER DRAWING		SCALE: 6:1	SHEET 1 OF 4 REV G

LOC	DIST	REVISIONS			
AA	00	REV	DESCRIPTION	DATE	APPD
-	-	1	SEE SHEET 1	-	-



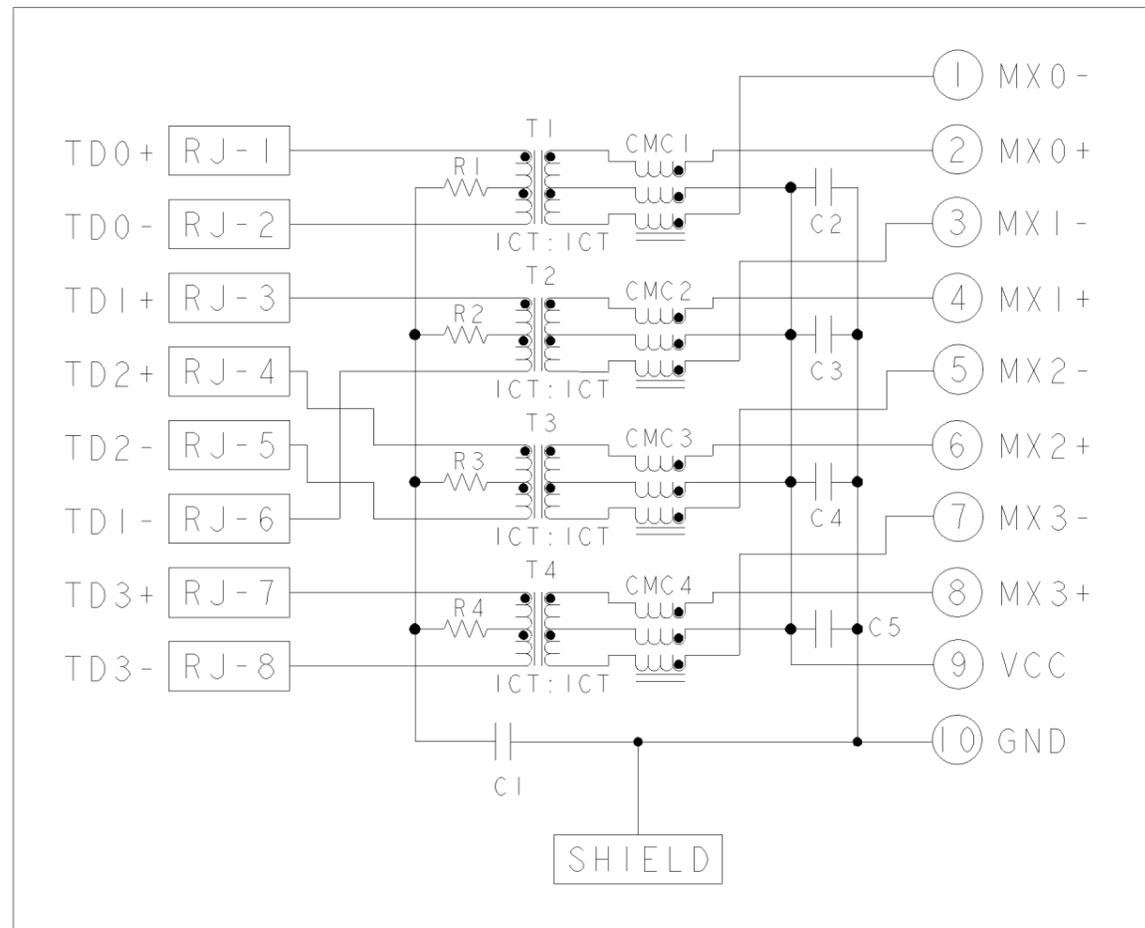
SIDE VIEW SHOWN WITH
 PANEL AND PCB
 FOR LOCATION

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 ANGLE ±°		DATE: 26SEP2006 CHK: KRKE YOUTH DENNIS CHEN APVD: TUDY XIONG		NAME: 2X1 MAG45(TM), GIGABIT S8G16 CIRCUIT PRODUCT SPEC: WAVE PANEL, GROUND SHIELD, W/LEDS APPLICATION SPEC: 108-2100 CONTACT PIN 2	
MATERIAL: SEE NOTE 1		FINISH: SEE NOTE 1		WEIGHT: -		SIZE: A1 CAGE CODE: 1840161 DRAWING NO: 100779	
CUSTOMER DRAWING				SCALE: 6:1		SHEET 2 OF 4 REV G	

LOC	DIST	REVISIONS			
AA	00	REV	DESCRIPTION	DATE	APPD
		-	SEE SHEET 1	-	-

S8G16 GIGABIT CIRCUIT

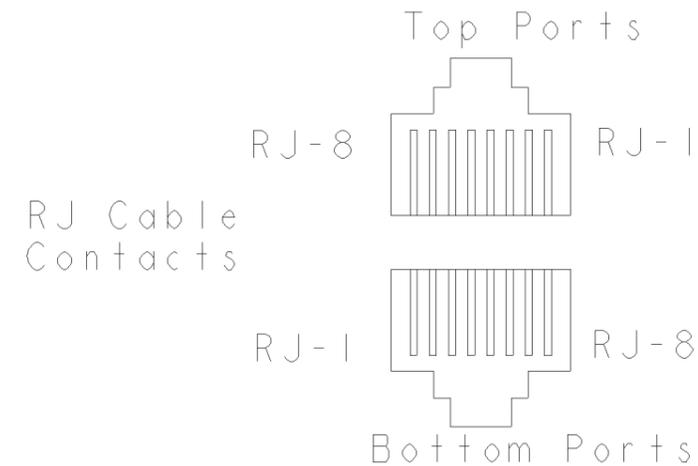
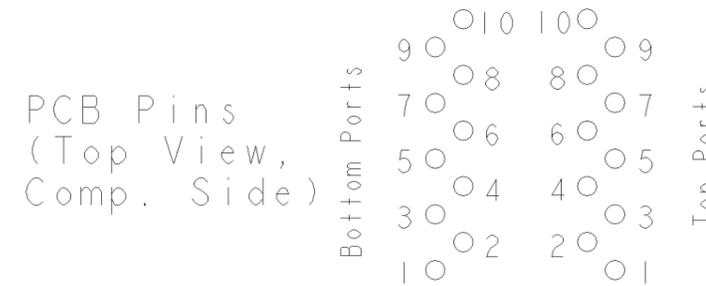
TOP AND BOTTOM PORTS



C1=1000pF, 2kV, DECOUPLING CAP
 C2-C5=470pF, 50V, ±10%, CAPACITORS
 R1-R4=75 OHMS, 1/16W, ±5%, RESISTORS

Pin Designations

(Repeat for each vertical pair of ports.)



DIMENSIONS:		TOLERANCES UNLESS OTHERWISE SPECIFIED:		DRAWN: KEFK YOUTH 26SEP2006		Tyco Electronics Changping, DG, China	
mm		0 PLC ±0.25		CHK: DENNIS CHEN 26SEP2006		NAME: 2X1 MAG45(TM), GIGABIT S8G16 CIRCUIT	
⌀		1 PLC ±0.25		APVD: TEDDY XIAO 26SEP2006		PRODUCT SPEC: WAVE PANEL, GROUND SHIELD, W/LEDS	
		2 PLC ±0.25		APPL: 108-2100		APPLICATION SPEC: CONTACT PIN 2	
		3 PLC ±0.25		SIZE: A100779		CAGE CODE: 1840161	
		4 PLC ±0.25		REIGHT: -		RESTRICTED TO: -	
		ANGLE ±0.25		CUSTOMER DRAWING		SCALE: 6:1 SHEET: 4 OF 4 REV: G	