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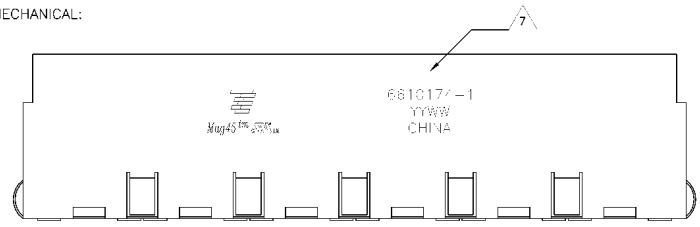
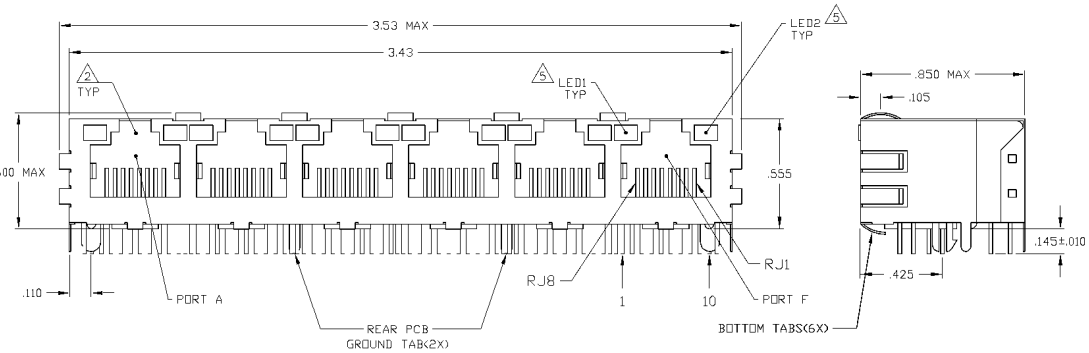
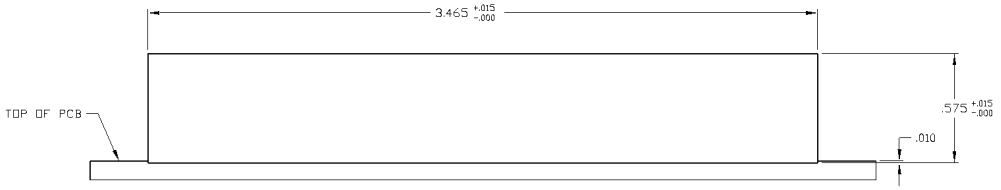
REVISIONS					
REV	LTR	DESCRIPTION	DATE	DWN	APVD
	D	REV PER ECO-08-021533	15SEP2008	VL	TX

MECHANICAL:







1X6 SUGGESTED PANEL CUTOUT

1. MATERIALS:
-HOUSING - THERMOPLASTIC PET POLYESTER FLAMMABILITY RATING UL 94V-0.
-SHIELD - .010" THICK, C26800 BRASS PREPLATED WITH 30uINCH MIN SEMI-BRIGHT NICKEL. SOLDER TABS POST DIPPED WITH 100 uINCH MIN SAC SOLDER.
-MOD JACK CONTACTS - 0.0157 X 0.018" PHOSPHOR BRONZE, 50 uINCH MIN OVERALL NICKEL UNDERPLATE WITH SELECT 50uINCH MIN HARD GOLD FINISH PLATE.
SOLDERTAILS WITH 100uINCH MIN MATTE TIN AND/OR SAC SOLDER DIP.
-LIGHT EMITTING DIODE(LED) - DIFFUSED EPOXY LENS, .020" X .020" CARBON STEELWIREFRAME LEADS PRE-PLATED WITH 80uINCH SILVER OVER 40uINCH NICKEL UNDERPLATE OVER 40uINCH COPPER UNDERPLATE.
POST-PLATED WITH 100uIN MIN MATTE TIN AND/OR SAC SOLDER DIP OR PURE TIN SOLDER DIP.

2. RJ45 JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS PART 68, SUB PART F.

3. 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

4. OPERATING TEMPERATURE: FROM 0°C TO +70°C.

5. THE 250 OHM LED RESISTORS ARE OPTIONAL. PLEASE SEE CHART FOR PRESENCE OR ABSENCE OF LED RESISTORS. IF THE LED WITHOUT 250 OHM RESISTORS, LED IS DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA.LED COLOR:DOMINANT WAVELENGTH(λD):GREEN 568nm TYP. @ IF=20mA
FORWARD VOLTAGE (VF): GREEN 2.2V TYP. @ IF=20mA
DOMINANT WAVELENGTH(λD):YELLOW 588nm TYP. @ IF=20mA
FORWARD VOLTAGE (VF): YELLOW 2.1V TYP. @ IF=20mA.
IF THE LED WITH 250 OHM RESISTORS,LED IS DRIVEN WITH 5V VOLTAGE AND THE MAX OPERATING CURRENT IS 20mA.
LED COLOR:DOMINANT WAVELENGTH(λD):GREEN 568nm TYP. @ VF=5V
FORWARD CURRENT (IF): GREEN 12 mA TYP. @ VF=5V
DOMINANT WAVELENGTH (λD): YELLOW 588nm TYP. @ VF=5V
FORWARD CURRENT (IF): YELLOW 13 mA TYP. @ VF=5V

6. INDICATED MAGNETIC CONNECTIONS ARE SYMMETRICAL TO SUPPORT AUTO-MDI/MDIX.

7. TYCO ELECTRONICS LOGO, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN AND AGENCY APPROVAL MARKING IN APPROXIMATE LOCATION SHOWN.

8. THESE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS, PREHEAT TEMPERATURE IS 128°C TO 168°C, 120 SECONDS TO 180 SECONDS, PEAK WAVE SOLDERING TEMPERATURE IS 260°C MAX,10 SECONDS MAX.

GREEN	YES	GREEN	YES	1-6610174-1
YELLOW	NO	YELLOW	NO	1-6610174-0
YELLOW	NO	GREEN	NO	6610174-9
GREEN	NO	YELLOW	NO	6610174-8
GREEN	NO	GREEN	NO	6610174-7
GREEN/YELLOW	NO	GREEN/YELLOW	NO	6610174-6
GREEN/YELLOW	NO	GREEN	NO	6610174-5
GREEN/YELLOW	NO	GREEN	YES	6610174-4
YELLOW	YES	YELLOW	YES	6610174-3
YELLOW	YES	GREEN	YES	6610174-2
GREEN	YES	YELLOW	YES	6610174-1
LED 1	250 OHMS RESISTOR 5	LED 2	250 OHMS RESISTOR 5	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.

DRAWN BY: G. ATTADIA — 20OCT04
CHK: D. FARDLE — 15MAR2005
APVD: D. FARDLE — 15MAR2005

Tyco Electronics Corporation
Changshu, China

PRODUCT SPEC: 108-2100
APPLICATION SPEC: —
WEIGHT: —
FINISH: 1

PART: 1X6 MAG45(TM) MODULAR JACK, 704P1 SCHEMATIC, 7005P1 GIGABIT ETHERNET CIRCUIT, SHIELDED, BOTTOM PANEL/REAR PCB GROUND TABS, WITH LEDS

SIZE: A1 | CAGE CODE: 00779 | DRAWING NO: C-6610174 | RESTRICTED TO: —

CUSTOMER DRAWING | SCALE: 4:1 | SHEET 1 OF 2 | REV D

MAP 4605 REV 21MAR2002

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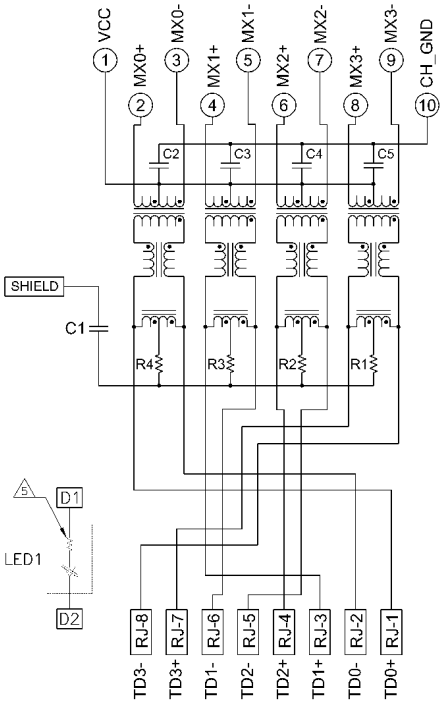
REC	DIST	REVISIONS				
AA	22	P	LTR	DESCRIPTION	DATE	DWN	APVD
			—	SEE SHEET 1	—	—	—

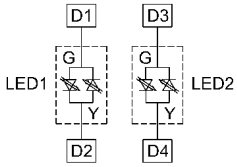
7G05P1 GIGABIT CIRCUIT 3 6



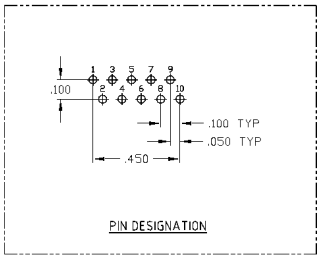
R1-R4 = 75 OHMS, 1/16W RESISTORS

C1 = 1000pF, 2kV CAPACITOR

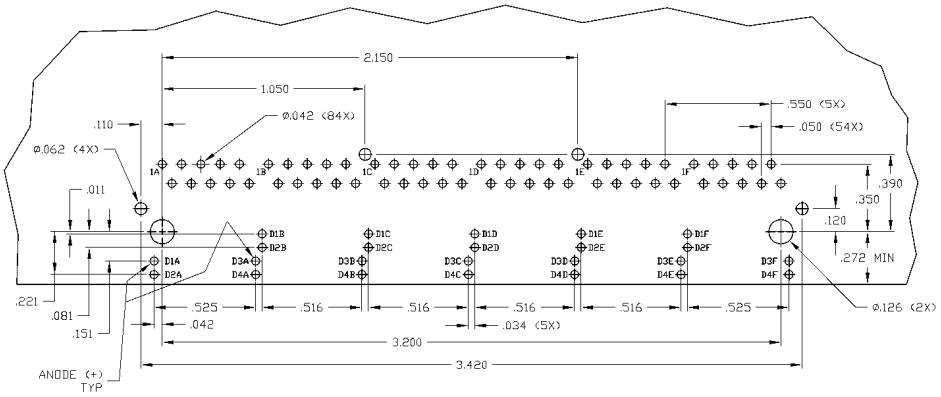
C2 - C5 = 0.1uF, 50V, X7R CAPACITORS



LED CONFIGURATION
FOR BI-COLOR



PIN DESIGNATION



SUGGESTED PCB LAYOUT
(Component Side)

THIS DRAWING IS A CONTROLLED DOCUMENT.	DRN G. ATIAUNA — 10MAR2000 / CHK — 10MAR2000 / DES D. FARDLE — 10MAR2000 / APVD — 10MAR2000	Tyco Electronics	Tyco Electronics Corporation, Changzhou, China
UNCLASSIFIED / RECEIVED	PRODUCT SPEC 108-2100 / APPLICATION SPEC —		NAME 1X8 MAG45(TM) MODULAR JACK, 7G05P1 GIGABIT ETHERNET CIRCUIT, SHIELDED, BOTTOM PANEL/REAR PCB GROUND TABS, WITH LEDS
TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± —; 1 PLC ± .010; 2 PLC ± .005; 3 PLC ± .005; 4 PLC ± —			SIZE A1 / CAGE CODE 00779 / DRAWING NO C-6610174 / RESTRICTION NO —
MATERIAL — / FINISH —	MOUNT —		SCALE 4:1 / SHEET 2 OF 2 / REV D
	CUSTOMER DRAWING		

ANF 4806 REV 31MAR2000