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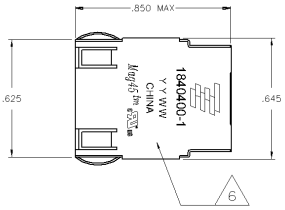
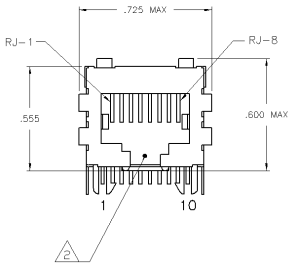
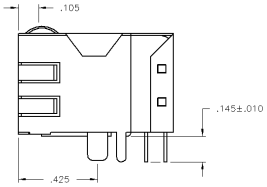
LOC	DIST	REVISIONS				
AA	22	P	LTR	DESCRIPTION	DATE	DWN	APVD
			C	REV PER ECO-08-026507	03SEP2008	VL	TX

MECHANICAL:







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 100uinch MIN SAC SOLDER.
   MOD JACK CONTACTS - .0157" x .018", PHOSPHOR BRONZE, 50uinch MIN OVERALL NICKEL UNDERPLATE, WITH SELECT 50uinch MIN HARD GOLD FINISH PLATE. SOLDERTAILS WITH 100uinch MIN MATTE TIN AND/OR SAC SOLDER DIP.

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

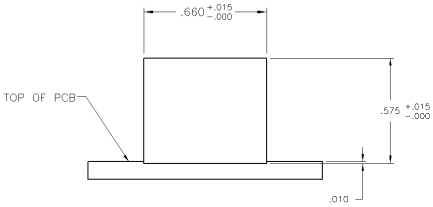
3. MAGNETICS:
   - APPLICATION: 10/100/1000 BASE-T
   - IMPEDANCE: 100 OHMS
   - TURNS RATIO (CHIP:CABLE): 1:1 ALL FOUR PAIRS
   - OPEN CIRCUIT INDUCTANCE (OCL): 350µH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM 0°C TO 70°C, ALL FOUR PAIRS
   - ALL FOUR PAIRS BI-DIRECTIONAL
   - PERFORMANCE @ 25°C:
     INSERTION 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. INDICATED MAGNETIC CONNECTIONS ARE SYMMETRIC AND SUPPORT AUTO-MDI/MDIX.

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

7. THE PART IS RECOMMENDED FOR WAVE SOLDERING PROCESS, PREHEAT TEMPERATURE IS 120°C TO 160°C, 120 SECONDS TO 180 SECONDS,PEAK WAVE SOLDERING TEMPERATURE IS 260°C MAX,10 SECONDS MAX.



Suggested Panel Cutout

1840400-1
PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.	DWN ELORZYBOWSKI 29FEB00	Tyco Electronics Corporation ChangPing, China
DIMENSIONS: INCHES	CHK D.FAROLE 29FEB00	
TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± - 1 PLC ± .010 2 PLC ± .005 3 PLC ± - 4 PLC ± - SHEETS ± -	APVD D.FAROLE 29FEB00	NAME 1X1 MAG45(TM), GIGABIT ETHERNET (10 PIN FOOTPRINT), 4G05 SERIES MAGNETIC CIRCUIT, SHIELDED
	PRODUCT SPEC 108-2100	
	APPLICATION SPEC -	
MATERIAL - 1	FINISH - 1	WEIGHT -
	SIZE A1	CAGE CODE 00779
	DRAWING NO C-1840400	RESTRICTED TO -
	CUSTOMER DRAWING	SCALE 1:1 SHEET 1 OF 2 REV C

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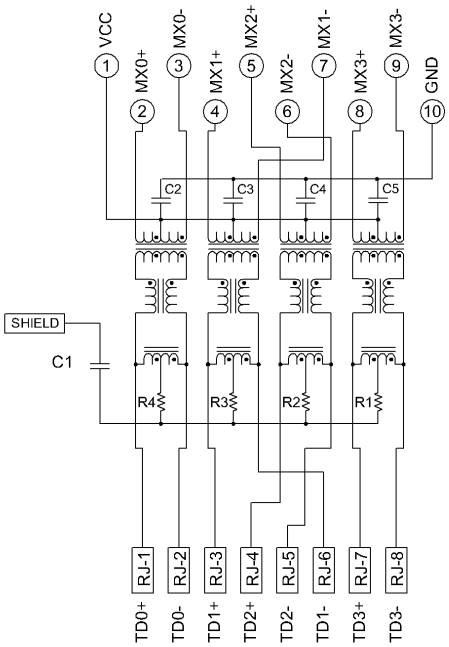
ELECTRICAL:

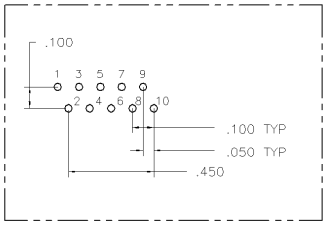
4G05 Series GIGABIT Magnetic Circuit



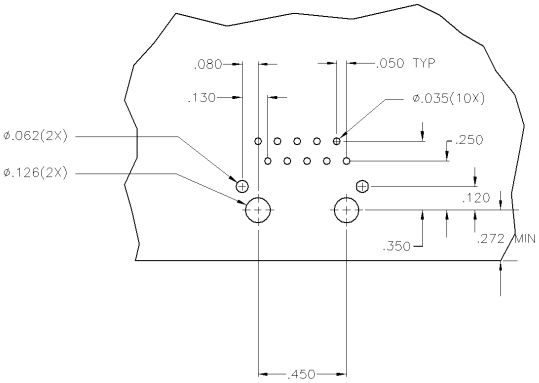
C1 = 1000 pF, 2kV CAPACITOR

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

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



Pin Designations



Suggested PCB Layout
(Component Side)

THIS DRAWING IS A CONTROLLED DOCUMENT.	DRN: R.Gatzyrowski 20/03/03	Tyco Electronics	Tyco Electronics Corporation Changping, China
DIMENSIONS: INCHES	CHK: D. Forale		1X1 MAG45(TM), GIGABIT ETHERNET (10 PIN FOOTPRINT), 4G05 SERIES MAGNETIC CIRCUIT, SHIELDED
	APVD: D. Dickinger		
	PRODUCT SPEC: 108-2100		
	APPLICATION SPEC: –		
MATERIAL: SEE SHEET 1	FINISH: SEE SHEET 1	WEIGHT: –	SIZE: A1 CAGE CODE: 00779 DRAWING NO: 1840400 RESTRICTED TO: –
		CUSTOMER DRAWING	SCALE: – SHEET 2 OF 2 REV: C

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