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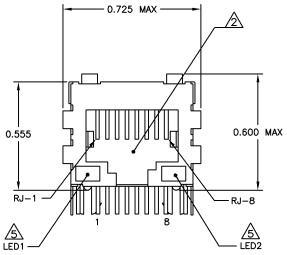
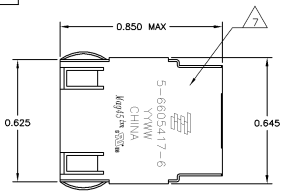
LOC	DIST
AA	22

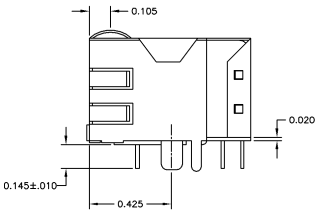
REVISIONS

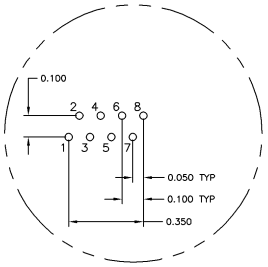
P	LTR	DESCRIPTION	DATE	DWN	APVD
	C	REV PER ECO-08-022358	04SEP2008	RQ	TX

MECHANICAL:









Pin Designations

1. MATERIALS:
HOUSING - THERMOPLASTIC PET POLYESTER FLAMMABILITY RATING UL 94V-0.
SHIELD - .010" THICK, C26800 BRASS PREPLATED WITH 30µINCH MIN SEMI-BRIGHT NICKEL. SOLDER TABS POST DIPPED WITH 100µINCH MIN SAC SOLDER.
MOD JACK CONTACTS - 0.0157 X 0.018" PHOSPHOR BRONZE, 50µINCH MIN OVERALL NICKEL UNDERPLATE WITH SELECT 50µINCH MIN HARD GOLD FINISH PLATE.
SOLDERTAILS WITH 100µINCH MIN MATTE TIN AND/OR SAC SOLDER DIP.
LIGHT EMITTING DIODE(LED) - DIFFUSED EPOXY LENS, .020" X .020" CARBON STEEL WIREFRAME LEADS PRE-PLATED WITH 80µINCH SILVER OVER 40µINCH NICKEL UNDERPLATE OVER 40µINCH COPPER UNDERPLATE. POST-PLATED WITH 100µINCH 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:
-IMPEDANCE: 100 OHMS
-TURNS RATIO (CHIP:CABLE): TX = 1:1, RX = 1:1
-OPEN CIRCUIT INDUCTANCE (OCL): 350µH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM 0°C TO 70°C, TX AND RX
-PERFORMANCE @ 25°C
INSERTION LOSS (IL): 1.1dB MAX FROM 0.5MHz TO 100MHz
RETURN LOSS (RL): 18dB MIN FROM 0.5MHZ TO 30MHz
18-20LOG(F/30)dB MIN FROM 30.1MHz TO 60MHz
12dB MIN FROM 60.1MHz TO 80MHz
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 23.5.1.1, ITEM b

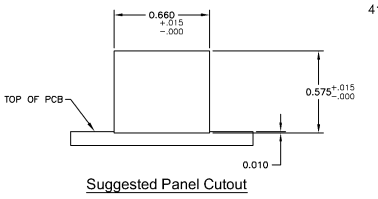
4. OPERATING TEMPERATURE: FROM 0°C TO +70°C.

5. 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): YELLOW 588 nm TYP @ IF=20mA
FORWARD VOLTAGE (VF): YELLOW 2.1V TYP @ IF=20mA

6. INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE ASYMMETRICAL, AND DO NOT SUPPORT AUTO-MDI/MDIX.

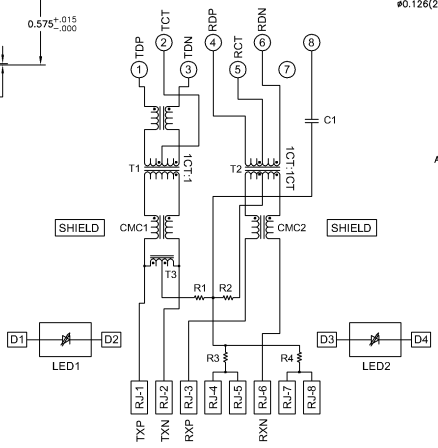
7. TYCO ELECTRONICS LOGO, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN AND AGENCY APPROVAL MARKING IN APPROXIMATE LOCATION SHOWN.

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

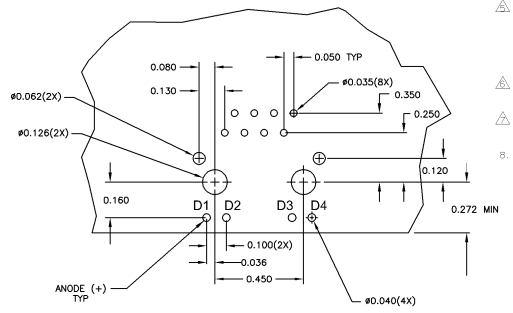


Suggested Panel Cutout

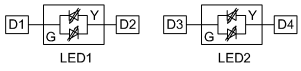
417P1 SERIES MAGNETIC CIRCUIT 3 6



C1=1000pF, 2kV DECOUPLING CAPACITOR
R1-R4 = 75 OHMS, 1/16 W RESISTORS



Suggested PCB Layout
(Component Side)



LED CONFIGURATION
FOR 5-6605417-6 ONLY

LED1	LED2	PART NUMBER
GREEN/YELLOW	GREEN/YELLOW	5-6605417-6
GREEN	GREEN	5-6605417-7

THIS DRAWING IS A CONTROLLED DOCUMENT.
DIMENSIONS: INCHES
TOLERANCES UNLESS OTHERWISE SPECIFIED: 3 PLC ± -, 2 PLC ± .010, 1 PLC ± .005, X ANGLES ± -
MATERIAL: 1
FINISH: 1
SIM: G. ATTADA -- 05MAY2005
CHK: D. FAROLE 05JUN2005
APVD: M. FLICKINGER 05JUN2005
PRODUCT SPEC: 108-2100
APPLICATION SPEC: --
WEIGHT: --
CUSTOMER DRAWING
Tyco Electronics Corporation, Changping, China
NAME: 1X1 MAG45(TM), MODULAR JACK, 4N2P1 SCHEMATIC, 417 SERIES CIRCUIT, SHIELDED, DECOUPLING CAPACITOR, WITH LEDS
SIZE: A1 | CAGE CODE: 00779 | DRAWING NO: C-6605417
RESTRICTED TO: --
SCALE: NTS | SHEET: 1 OF 1 | REV: C

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