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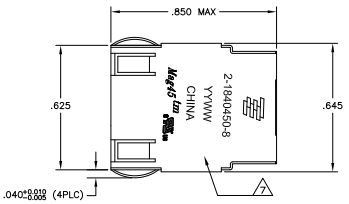
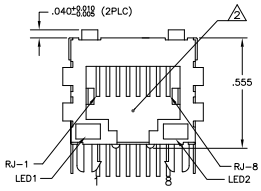
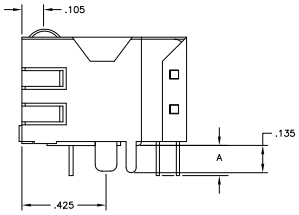
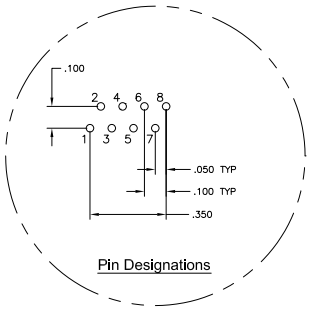
REVISIONS					
LOC	DIST	P	LTR	DESCRIPTION	DATE	DWN	APVD
AA	00		D1	REV PER ECO-11-005140	25APR11	RK	HMR

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
-APPLICATION: 10/100 BASE-T, EXTENDED TEMPERATURE
-IMPEDANCE: 100 OHMS
-TURNS RATIO (CHIP:CABLE): TX = 1:1, RX = 1:1
-OPEN CIRCUIT INDUCTANCE (OCL): 350uH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM -40°C TO +85°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 -40° ~ +85°C.

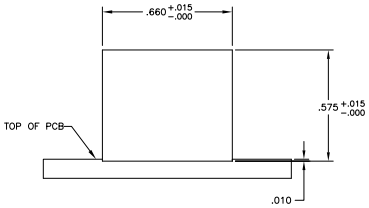
5 INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE SYMMETRICAL, AND THEREFORE SUPPORT AUTO-MDI/MDIX.

6 LED IS DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA.

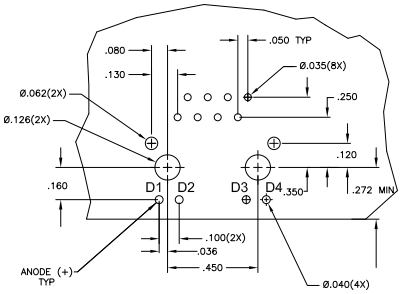
DOMINANT WAVELENGTH(λD)
GREEN 565nm TYP. at IF=20mA

7 TYCO ELECTRONICS LOGO, TE CONNECTIVITY 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 120°C TO 160°C, 120 SECONDS TO 180 SECONDS,PEAK WAVE SOLDERING TEMPERATURE IS 260°C MAX,10 SECONDS MAX.

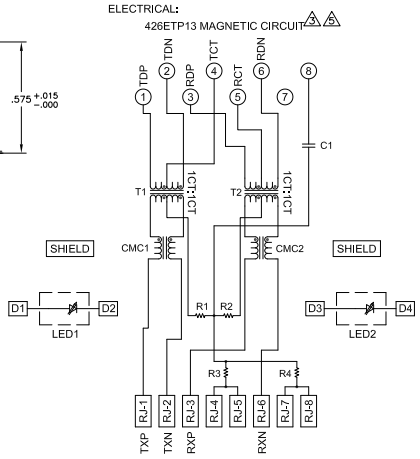


Suggested Panel Cutout



Suggested PCB Layout
(Component Side)

ELECTRICAL:



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

.120±.010	YELLOW	GREEN	2-1840450-9
.145±.010	GREEN	GREEN	5-1840450-7
.120±.010	GREEN	YELLOW	2-1840450-8
DIM A	LED1 6	LED2 6	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.
DIMENSIONS: INCHES
TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ± .250
1 PLC ± .050
2 PLC ± .010
3 PLC ± .005
4 PLC ± .002
ANGLES ± 1°
MATERIAL 1
FINISH 1
DES RANDY QU 11OCT2007
CHK KEITH ZHU 11OCT2007
APP TEDDY XIONG 11OCT2007
PRODUCT SPEC 108-2100
APPLICATION SPEC –
WEIGHT –
CUSTOMER DRAWING

TE Connectivity

1X1 MAG45(TM), 10/100 ETHERNET SCHEMATIC,426ETP13 MAGNETIC CIRCUIT, SHIELDED, DECOUPLING CAPACITOR, WITH LEDS

SIZE A1 | CAGE CODE 00779 | DRAWING NO C-1840450 | RESTRICTED TO –
SCALE NTS | SHEET 1 OF 1 | REV D1

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