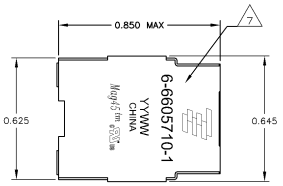
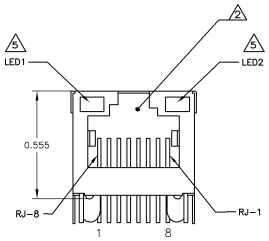
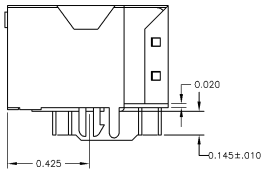
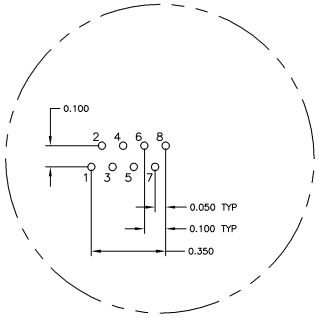
MECHANICAL:









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
33-20*LOG(f/50)dB MIN FROM 40.1MHz TO 100MHz
COMMON MODE REJECTION RATIO (CMRR): 30dB MIN FROM 0.5MHz TO 100MHz
-ISOLATION VOLTAGE: 2250 VDC FOR 60 SECONDS DURATION

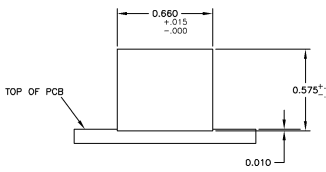
4. OPERATING TEMPERATURE: FROM 0°C - +70°C

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 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
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 568 nm TYP. @ VF=5V
FORWARD CURRENT (IF): GREEN 12 mA TYP. @ VF=5V

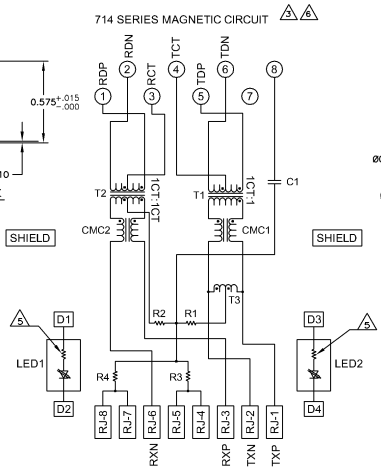
6. INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE ASYMMETRICAL, AND THEREFORE DO NOT SUPPORT AUTO-MDI/MDIX.

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

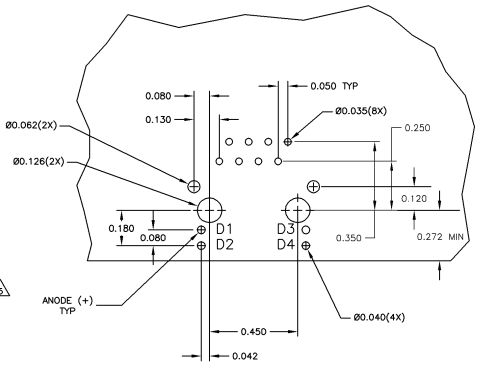
8. THESE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS. PREHEAT TEMPERATURE IS 120°C TO 160°C, 120 SECONDS TO 180 SECONDS. PEAK WAVE SOLDERING TEMPERATURE IS 260°C MAX, 10 SECONDS MAX.



Suggested Panel Cutout



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



Suggested PCB Layout

	LED1	250 OHMS RESISTOR ⚠5	LED2	250 OHMS RESISTOR ⚠5	PART NUMBER
	YES	GREEN	YES	GREEN	YES	6-6605710-1
OBSOLETE	YES	GREEN	NO	YELLOW	NO	5-6605710-8
OBSOLETE	YES	GREEN	NO	GREEN	NO	5-6605710-7
OBSOLETE	NO	GREEN	YES	GREEN	YES	1-6605710-1
	DECOUPLING CAPACITOR					

THIS DRAWING IS A CONTROLLED DOCUMENT.

DRN	G. ATTADIA – DOCX3
CHK	D. FAROLF
APVD	D. FAROLF
PRODUCT SPEC	108-2100
APPLICATION SPEC	–
WEIGHT	–
CUSTOMER DRAWING	

Tyco Electronics — Tyco Electronics Corporation, Changping, China

1X1 MAG45(TM), 7N2 SCHEMATIC, 714 SERIES CIRCUIT WITH OPTIONAL DECOUPLING CAPACITOR, WITH LEDS, NO PANEL GROUND TABS

SIZE A1 | CAGE CODE 00779 | DRAWING NO C-6605710 | RESTRICTED TO –

SCALE NTS | SHEET 1 OF 1 | REV D

REVISIONS					
LTR	DESCRIPTION	DATE	DWN	APVD
D	REV PER ECO-09-020657	10SEP2009	VL	LR

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