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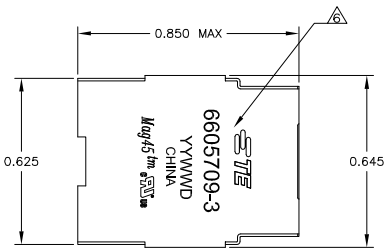
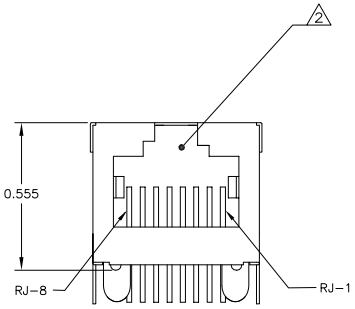
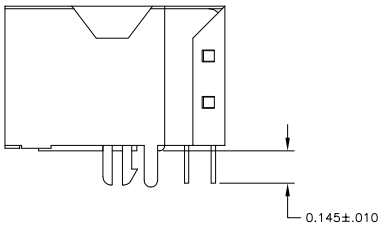
LOC	DIST
AA	22

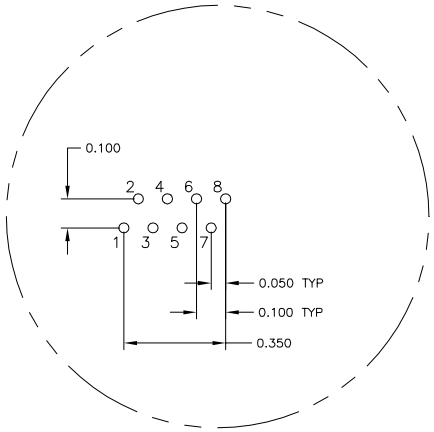
P	LTR	DESCRIPTION	DATE	DWN	APVD
	C	PER ECO-09-000798	26MAY2009	VL	LR
	D	ECO-11-015766	30MAY2011	EL	LR

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.

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

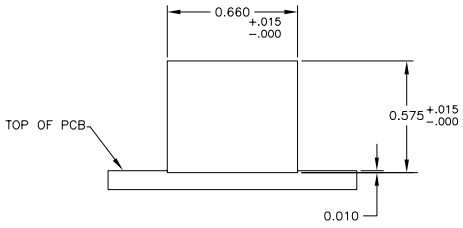
3. MAGNETICS
-IMPEDANCE: 100 OHMS
-TURNS RATIO (CHIP:CABLE): TX = 1:1, RX = 1:1
-OPEN CIRCUIT INDUCTANCE (OCL): 350uH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM 0°C TO 70°C, TX AND RX
-PERFORMANCE @ 25°C:
INSERTION LOSS (IL): 1.1dB MAX FROM 0.5MHz TO 100MHz
RETURN LOSS (RL): 18dB MIN FROM 0.5MHz TO 30MHz
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:2250VDC (MAX) FOR 60 SECONDS WITH A RISE TIME OF 500V/SEC.

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

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

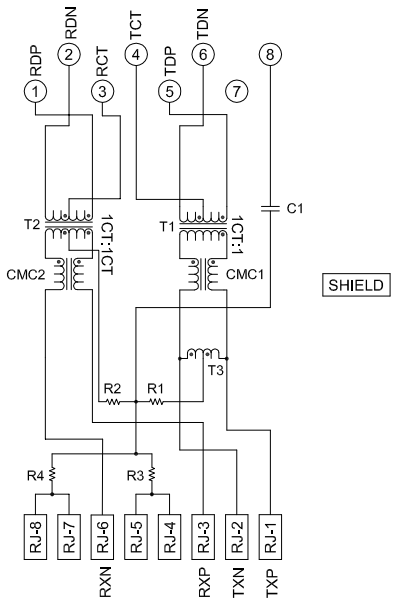
6. TYCO ELECTRONICS LOGO, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN AND AGENCY APPROVAL MARKING IN APPROXIMATE LOCATION SHOWN.

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.



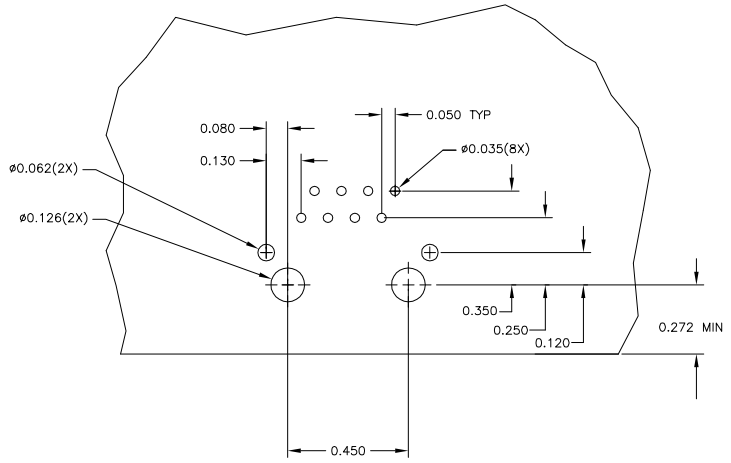
Suggested Panel Cutout

714 SERIES MAGNETIC CIRCUIT 3 5



C1=1000 pF, 2KV CAPACITOR

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



Suggested PCB Layout

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: INCHES

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ± -
1 PLC ± -
2 PLC ± .010
3 PLC ± .005
4 PLC ± -
ANGLES ± -

MATERIAL 1

FINISH 1

DWN L. VARELA - DOCK5 10MAR2005
CHK D. FAROLE 10MAR2005
APVD D. FAROLE 10MAR2005
PRODUCT SPEC 108-2100
APPLICATION SPEC -
WEIGHT -

TE Connectivity

NAME 1X1 MAG45(TM), 7N2 SCHEMATIC (10/100 ETHERNET) 714 CIRCUIT, NO LEDS DECOUPLING CAPACITOR, NO PANEL GROUND TABS

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-6605709	-

CUSTOMER DRAWING SCALE 1:1 SHEET 1 OF 1 REV D

6605709-3
PART NUMBER