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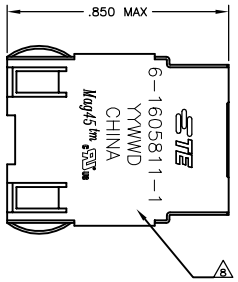
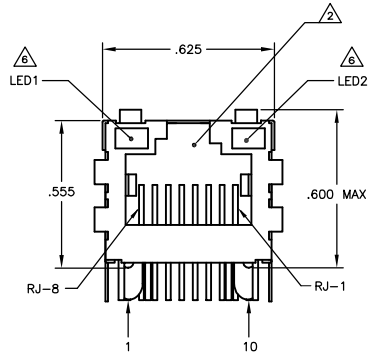
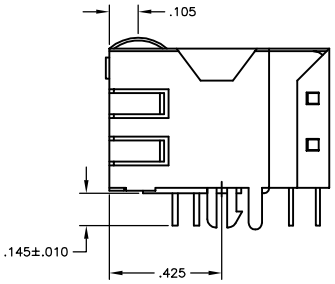
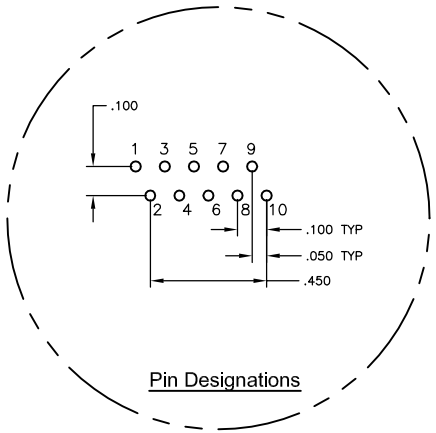
MECHANICAL:

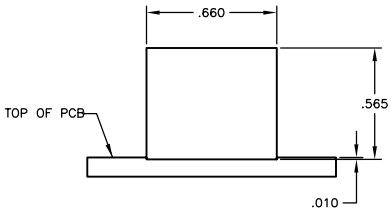






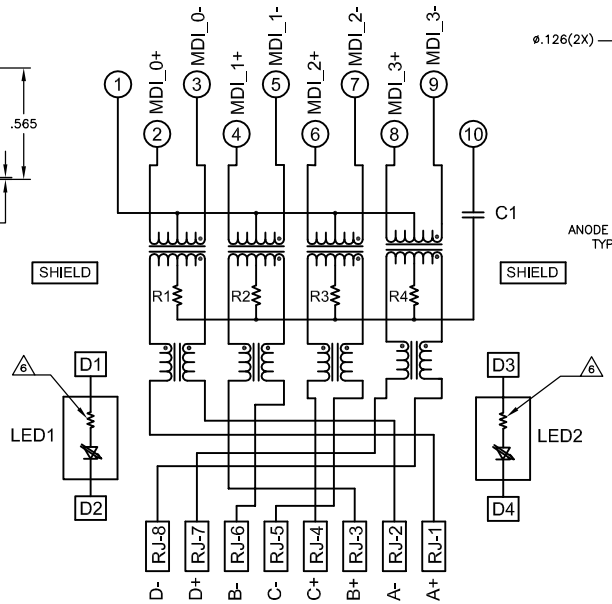


Pin Designations



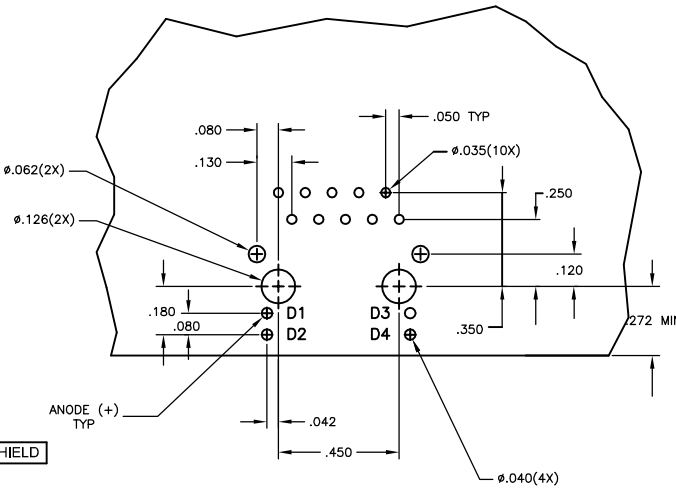
Suggested Panel Cutout

7G01P1 SERIES GIGABIT CIRCUIT 3 7



C1 = 1000 pF, 2kV CAPACITOR

R1–R4 = 75 OHMS, 1/16W RESISTORS



Suggested PCB Layout
(Component Side)

REVISIONS					
LTR	DESCRIPTION	DATE	DWN	APVD
C	PER ECO-09-005589	26MAY2009	VL	LR
C1	REVISED PER ECO-10-000444	15JAN10	KK	AEG
D	ECO-11-015766	30MAY2011	EL	LR

1. MATERIALS:
HOUSING - THERMOPLASTIC PET POLYESTER FLAMMABILITY RATING UL 94V-0.
SHIELD - .010" THICK, C26800 BRASS PREPLATED WITH 50u inch SEMI-BRIGHT NICKEL; POST-DIPPED WITH 100u inch MIN TIN-LEAD.
MOD JACK CONTACTS - .0157" x .018" THICK, PHOSPHOR BRONZE, 50u inch MIN OVERALL NICKEL UNDERPLATE, WITH SELECT 50u inch MIN HARD GOLD FINISH PLATE. SOLDERTAILS WITH 50u inch MIN TIN-LEAD FINISH PLATE.
LIGHT EMITTING DIODE(LED) - DIFFUSED EPOXY LENS, .020" x .020" CARBON STEEL WIREFRAME LEADS PREPLATED WITH 90u inch SILVER OVER 40u inch NICKEL UNDERPLATE OVER 80u inch COPPER UNDERPLATE; POST-PLATED WITH 300u inch THICK TIN-LEAD.

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): 350uH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM 0℃ TO 70℃, ALL FOUR PAIRS
-ALL FOUR PAIRS BI-DIRECTIONAL
-PERFORMANCE @ 25℃:
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:2250VDC (MAX) FOR 60 SECONDS WITH A RISE TIME OF 500V/SEC.

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

5. ALL DIMENSIONS NOMINAL UNLESS OTHERWISE NOTED.

6. 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
ORWARD CURRENT (IF): GREEN 12 mA TYP. @ VF=5V
DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP. @ VF=5V
FORWARD CURRENT (IF): YELLOW 13 mA TYP. @ VF=5V

7. INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARESYMMETRICAL, AND THEREFORE DOES SUPPORT AUTO-MDI/MDIX.

8. TE CONNECTIVITY LOGO, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN AND AGENCY APPROVAL MARKING IN APPROXIMATE LOCATION SHOWN.

9. 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.

10. OBSOLETE PARTS: OBSOLETE CIS STREAMLINING PER D.RENAUD/D.SINISI

	2KV DECOUPLING CAPACITOR	LED1 6	LED2 6	PART NUMBER
	YES	GREEN	GREEN	6-1605811-1
10 OBSOLETE	YES	YELLOW	GREEN	~~5-1605811-2~~
	YES	GREEN	YELLOW	5-1605811-1
OBSOLETE	NO	GREEN	GREEN	~~1-1605811-1~~

THIS DRAWING IS A CONTROLLED DOCUMENT.

	NAME	DATE
DWN	D. HARRINGTON	23JUL2002
CHK	M. HOSIER	23JUL2002
APVD	EC LAUBER	23JUL2002

PRODUCT SPEC: 108-2100
APPLICATION SPEC: –
WEIGHT: –

TE Connectivity

1X1 MAG45(TM), MODULAR JACK, 7G1P1 GIGABIT SCHEMATIC, 7G01 SERIES CIRCUIT, SHIELDED, DECOUPLING CAPACITOR, WITH RESISTOR LEDS

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-1605811	–

CUSTOMER DRAWING | SCALE NTS | SHEET 1 OF 1 | REV D

AMP 4605 REV 31MAR2000

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