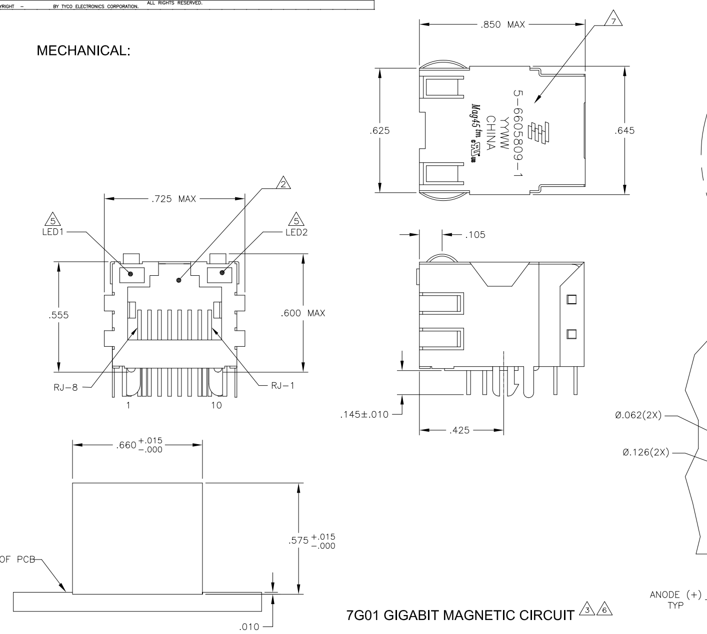
LOC	DIST
AA	22

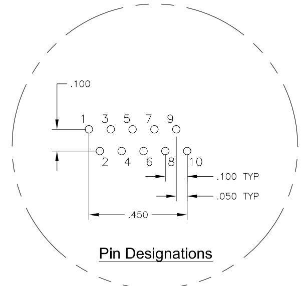
REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	B	REV PER ECO-08-026346	04SEP2008	RQ	TX
	B1	REVISED PER ECO-09-024927	10NOV09	KK	AEG

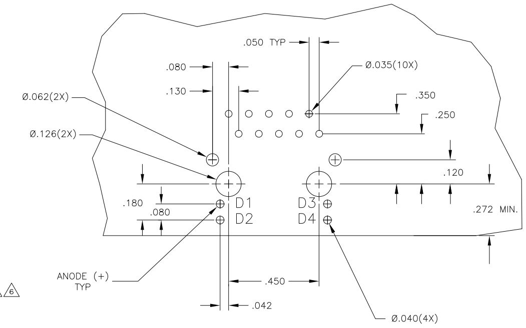
MECHANICAL:



Suggested Panel Cutout

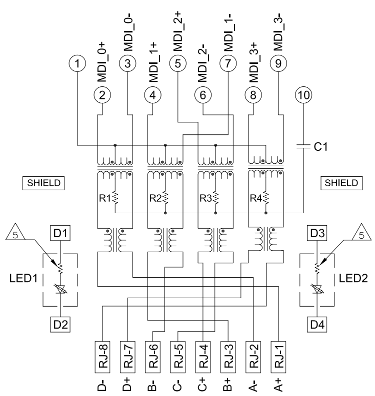


Pin Designations

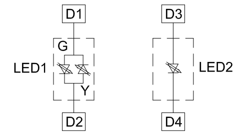


Suggested PCB Layout
(Component Side)

7G01 GIGABIT MAGNETIC CIRCUIT (3) (6)



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



LED CONFIGURATION
FOR 5-6605809-5 ONLY

(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): 1:1 ALL FOUR PAIRS
-OPEN CIRCUIT INDUCTANCE (OCL): 350μH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM 0°C TO 70°C, ALL FOUR PAIRS
-ALL FOUR PAIRS BI-DIRECTIONAL
-PERFORMANCE @ 25°C:
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
33-20×LOG(f/50)dB MIN FROM 40.1MHz TO 100MHz
COMMON MODE REJECTION RATIO (CMRR): 30dB MIN FROM 0.5MHz TO 100MHz
-ISOLATION VOLTAGE: COMPLIES WITH IEEE802.3 2002, PARA 40.6.1.1, ITEM b.

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

(6) THE MAGNETICS ARE SYMMETRICAL, AND THEREFORE ARE AUTO-MDI/MDIX CAPABLE.

(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 SOLDERING TEMPERATURE IS 260 °C MAX, 10 SECONDS MAX.

(9) OBSOLETE PARTS: OBSOLETE CIS STREAMLINING PER D.RENAUD/D.SINISI

	LED1	250 OHMS RESISTOR (5)	LED2	250 OHMS RESISTOR (5)	PART NUMBER
	GREEN	YES	GREEN	YES	6-6605809-1
	YELLOW	NO	GREEN	NO	5-6605809-9
	GREEN	NO	GREEN	NO	5-6605809-7
	GREEN/YELLOW	NO	GREEN	NO	5-6605809-5
(9) OBSOLETE	YELLOW	YES	GREEN	YES	~~5-6605809-2~~
	GREEN	YES	YELLOW	YES	5-6605809-1

THIS DRAWING IS A CONTROLLED DOCUMENT.

DWN	L. VARELA - DOCK5 02MAR2005
CHK	D. FAROLE 02MAR2005
APVD	D. FAROLE 02MAR2005
PRODUCT SPEC	108-2100
APPLICATION SPEC	–
WEIGHT	–

DIMENSIONS: INCHES

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

MATERIAL (1) FINISH (1)

Tyco Electronics Corporation
ChangPing, China

NAME: 1X1 MAG45(TM), 7G1 SCHEMATIC, 7G01 GIGABIT MAGNETIC CIRCUIT (10 PIN HORIZ), SHIELDED, DECOUPLING CAPACITOR, WITH LEDS

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-6605809	–

CUSTOMER DRAWING | SCALE NTS | SHEET 1 OF 1 | REV B1

AMP 4805 REV 31MAR2000