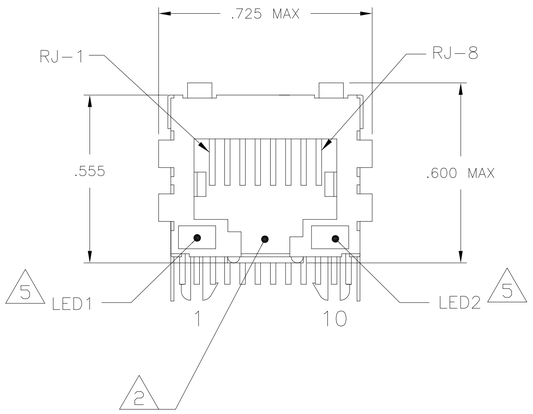
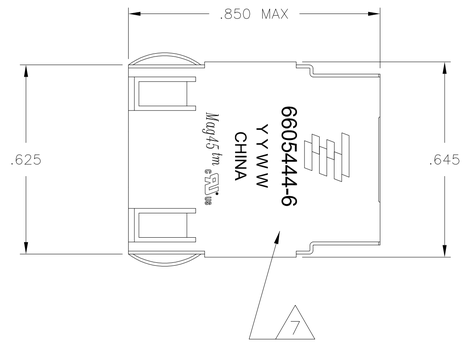
LOC	DIST
AA	22

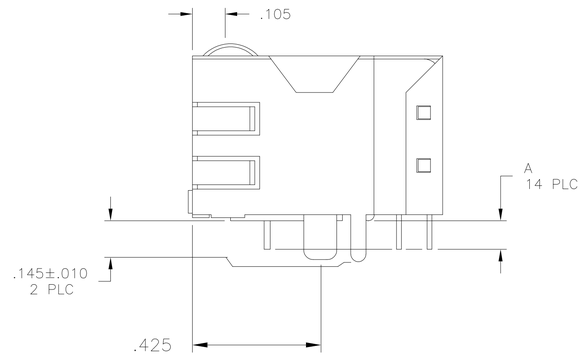
REVISIONS

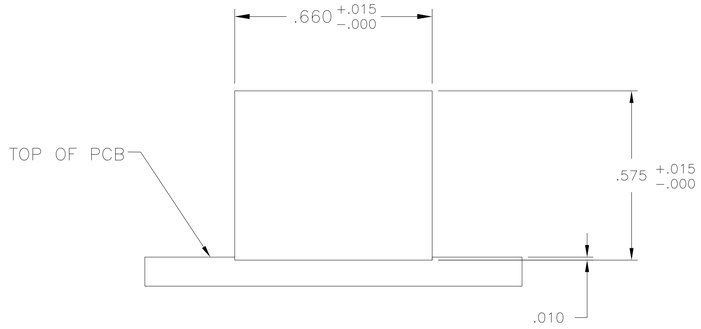
P	LTR	DESCRIPTION	DATE	DWN	APVD
	E1	REVISED PER ECO-11-005150	21MAR11	RK	HMR

MECHANICAL:









Suggested Panel Cutout

1. MATERIALS:
HOUSING - THERMOPLASTIC POLYESTER FLAMMABILITY RATING UL 94V-0.
SHIELD - .010" THICK, C26800 BRASS PREPLATED WITH 30uINCH SEMI-BRIGHT NICKEL. SOLDER TABS POST DIPPED WITH 100uINCH MIN SAC SOLDER.
MOD JACK CONTACTS - 0.0157 X 0.018" PHOSPHOR BRONZE, 50uINCH MIN OVERALL NICKEL UNDERPLATE, WITH SELECT 50uINCH MIN HARD GOLD FINISH PLATE SOLDERTAILS WITH 100uINCH 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 80uINCH SILVER OVER 40uINCH NICKEL UNDERPLATE OVER 40uINCH COPPER UNDERPLATE. POST-PLATED WITH 100uINCH 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): 350uH 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
33-20LOG(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 40.6.1.1, ITEM b.

4. OPERATING TEMPERATURE: FROM 0°C TO +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.
DOMINANT WAVELENGTH (λD): ORANGE 605 nm TYP. @ IF=20mA
FORWARD VOLTAGE (VF): ORANGE 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 MAGNETIC CONNECTIONS ARE SYMMETRICAL TO 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.

HOUSING MATERIAL	A	LED1	250 OHMS RESISTOR	LED2	250 OHMS RESISTOR	PART NUMBER
HIGH TEMPERATURE	.090±.010	GREEN/YELLOW	NO	GREEN/YELLOW	NO	3-6605444-6
NORMAL TEMPERATURE	.145±.010	GREEN/YELLOW	NO	GREEN/YELLOW	NO	2-6605444-6
NORMAL TEMPERATURE	.090±.010	GREEN	NO	GREEN/ORANGE	NO	1-6605444-8
NORMAL TEMPERATURE	.090±.010	GREEN/ORANGE	NO	YELLOW	NO	1-6605444-3
NORMAL TEMPERATURE	.090±.010	GREEN	YES	GREEN	YES	1-6605444-1
NORMAL TEMPERATURE	.090±.010	GREEN/YELLOW	NO	GREEN/YELLOW	NO	6605444-6

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 G. ATTADIA - DOCK5 09MAR2005
CHK D. FAROLE 09MAR2005
APVD D. FAROLE 09MAR2005
PRODUCT SPEC 108-2100
APPLICATION SPEC -
WEIGHT -

TE Connectivity

NAME 1X1 MAG45(TM), 4G4P1 GIGABIT ETHERNET SCHEMATIC (10 PIN FOOTPRINT), 4G05P1 SERIES MAGNETIC CIRCUIT, SHIELDED, WITH LEDS

SIZE A1 | CAGE CODE 00779 | DRAWING NO C-6605444 | RESTRICTED TO -

CUSTOMER DRAWING | SCALE 1:1 | SHEET 1 OF 2 | REV E1

4805 (3/11)

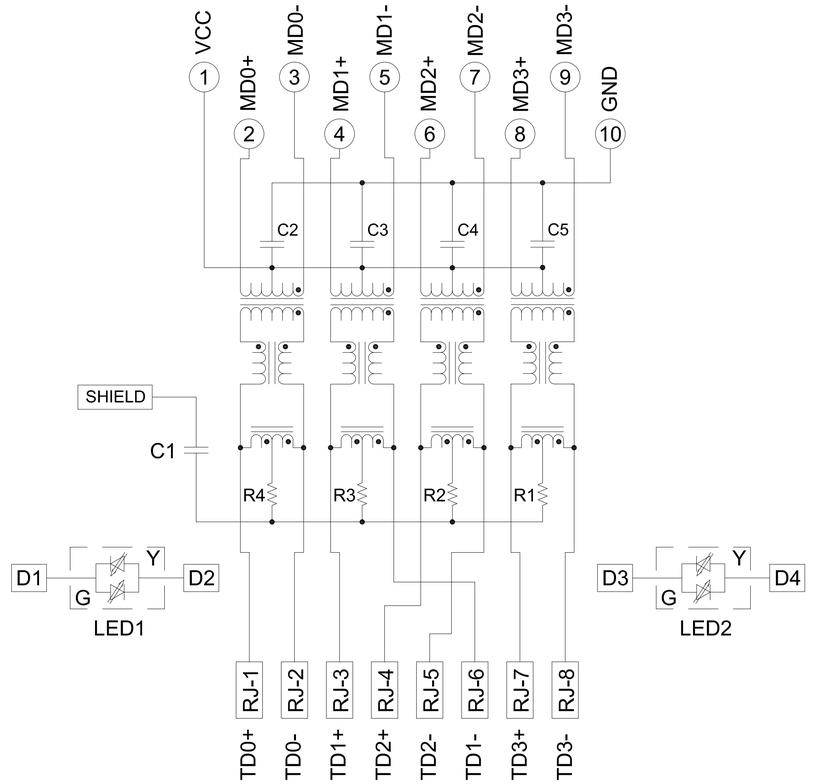
LOC	DIST
AA	22

REVISIONS

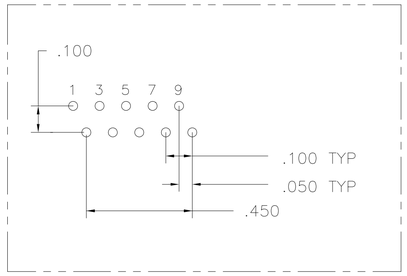
P	LTR	DESCRIPTION	DATE	DWN	APVD
	–	SEE SHEET 1	–	—	—

ELECTRICAL:

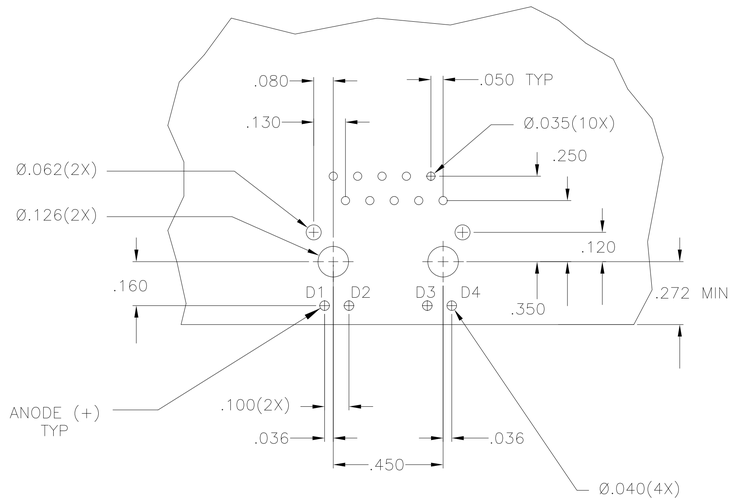
4G05P1 Series GIGABIT Magnetic Circuit △3 △6



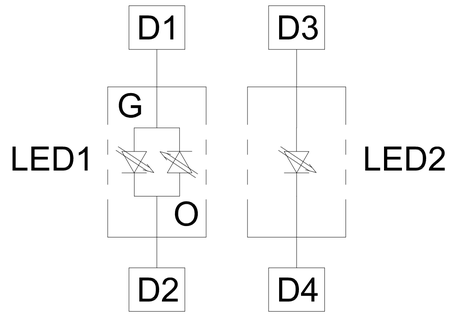
LED CONFIGURATION
For 1–6605444–1 ONLY



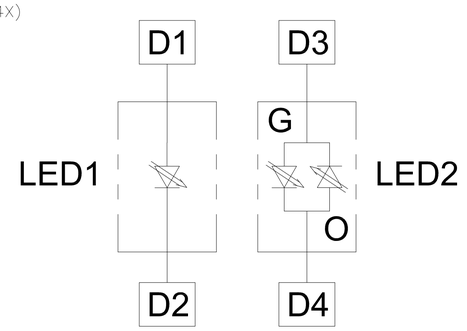
Pin Designations



Suggested PCB Layout
(Component Side)



LED CONFIGURATION
FOR 1–6605444–3 ONLY



LED CONFIGURATION
FOR 1–6605444–8 ONLY

C1 =1000 pF, 2kV CAPACITOR

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

C2-C5 = 0.1uF, 50V, X7R CAPACITORS

THIS DRAWING IS A CONTROLLED DOCUMENT.	DWN 09MAR2005 G. ATTADIA– DOCKS	TE Connectivity	
DIMENSIONS: INCHES	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± – 1 PLC ± – 2 PLC ± .010 3 PLC ± .005 4 PLC ± – ANGLES ± –	CHK 09MAR2005 D. FAROLE	NAME 1X1 MAG45(TM), 4G4P1 GIGABIT ETHERNET SCHEMATIC (10 PIN FOOTPRINT), 4G05P1 SERIES MAGNETIC CIRCUIT, SHIELDED, WITH LEDS
MATERIAL SEE SHEET 1	FINISH SEE SHEET 1	APVD 09MAR2005 D. FAROLE	PRODUCT SPEC 108–2100
		APPLICATION SPEC —	SIZE A1 / CAGE CODE 00779 / DRAWING NO C-6605444 / RESTRICTED TO —
		WEIGHT —	CUSTOMER DRAWING / SCALE 1:1 / SHEET 2 OF 2 / REV E1