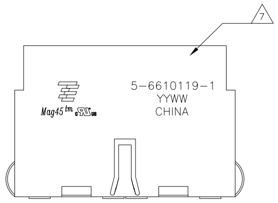
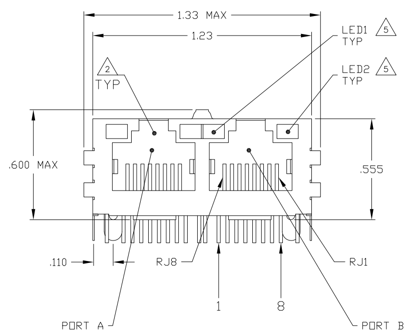
LOC	DIST
AA	22

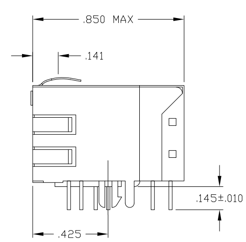
REVISIONS

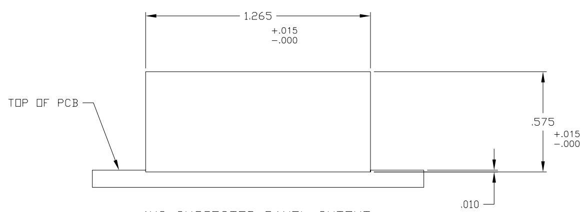
P	LTR	DESCRIPTION	DATE	DWN	APVD
	C	REV PER ECO-09-021794	29SEP2009	VL	LR
	C1	REVISED PER ECO-09-024927	11NOV09	KK	AEG

MECHANICAL:









1X2 SUGGESTED PANEL CUTOUT

1. MATERIALS:
-HOUSING - THERMOPLASTIC PET POLYESTER FLAMMABILITY RATING UL 94V-0.
-SHIELD - 0.010" 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 100µIN 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: COMPLIES WITH IEEE802.3 2002, PARA 23.5.1.1, 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. at IF=20mA
FORWARD VOLTAGE (VF): GREEN 2.2V TYP. at IF=20mA
DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP. at IF=20mA
FORWARD VOLTAGE (VF): YELLOW 2.1V TYP. at 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. at VF=5V
FORWARD CURRENT (IF): GREEN 12 mA TYP. at VF=5V
DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP. at VF=5V
FORWARD CURRENT (IF): YELLOW 13 mA TYP. at VF=5V

6. INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE ASYMMETRICAL,AND 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,PEAK WAVE SOLDERING TEMPERATURE IS 265°C MAX, 10 SECONDS MAX.

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

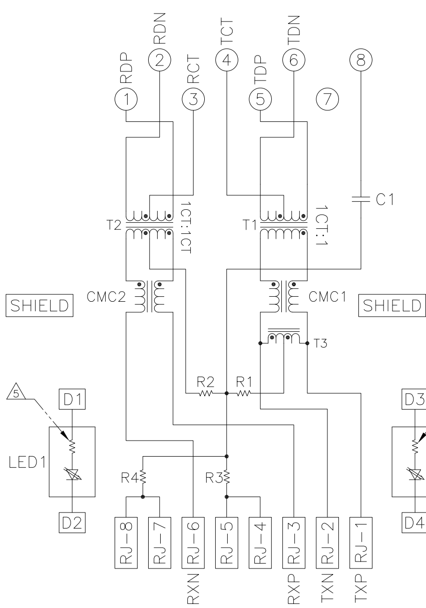
	LED RESISTORS	LED1	LED2	PART NUMBER
9 OBSOLETE	NO	GREEN/YELLOW	GREEN/YELLOW	~~5-6610119-6~~
	YES	GREEN	YELLOW	5-6610119-1

THIS DRAWING IS A CONTROLLED DOCUMENT.	DWN 17MAR2005 A. FERNANDEZ-DOCK5; CHK 17MAR2005 D. FAROLE	Tyco Electronics	Tyco Electronics Corporation, Harrisburg, PA 17105-3608
DIMENSIONS: INCHES	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± -; 1 PLC ± -; 2 PLC ± .010; 3 PLC ± .005; 4 PLC ± -; ANGLES ± -	APVD 17MAR2005 D. FAROLE; PRODUCT SPEC 108-2100; APPLICATION SPEC -	NAME: 1X2 MAG45(TM) MODULAR JACK, 7N2 SCHEMATIC, 14 SERIES CIRCUIT, DECOUPLING CAPACITOR, SHIELDED, WITH LEDS.
MATERIAL 1	FINISH 1	WEIGHT -	SIZE A1; CAGE CODE 00779; DRAWING NO C-6610119; RESTRICTED TO -
		CUSTOMER DRAWING	SCALE 4:1; SHEET 1 OF 2; REV C1

AMP 4805 REV 31MAR2000

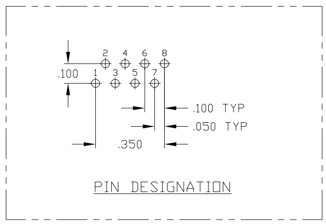
LOC	DIST	REVISIONS				
AA	22	P LTR	DESCRIPTION	DATE	DWN	APVD
		–	SEE SHEET 1	–	–	–

14 SERIES MAGNETIC CIRCUIT 3 6

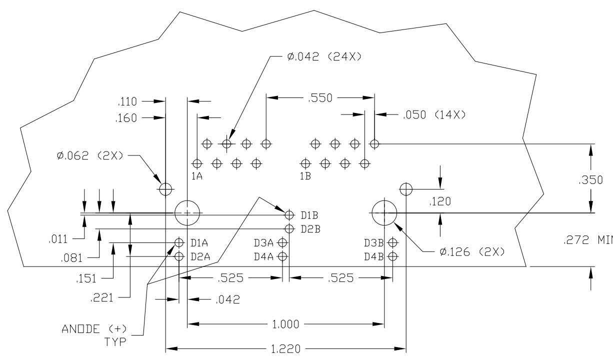


C1 = 1000pF, 2kV CAPACITOR

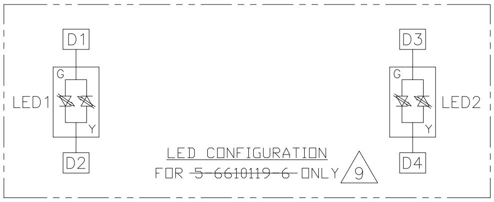
R1-R4 = 75 OHMS, 1/16W RESISTORS



PIN DESIGNATION



SUGGESTED PCB LAYOUT
(Component Side)



LED CONFIGURATION
FOR ~~5-6610119-6~~ ONLY 9

THIS DRAWING IS A CONTROLLED DOCUMENT.

DWN	A. FERNANDEZ-DOCK5 17MAR2005
CHK	D. FAROLE 17MAR2005
APVD	D. FAROLE 17MAR2005
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 –
FINISH –

Tyco Electronics
Tyco Electronics Corporation
Harrisburg, PA 17105-3608

NAME: 1X2 MAG45(TM) MODULAR JACK, 7N2 SCHEMATIC, 14 SERIES CIRCUIT, DECOUPLING CAPACITOR, SHIELDED, WITH LEDS

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-6610119	–

CUSTOMER DRAWING | SCALE 4:1 | SHEET 2 OF 2 | REV C1

AMP 4805 REV 31MAR2000