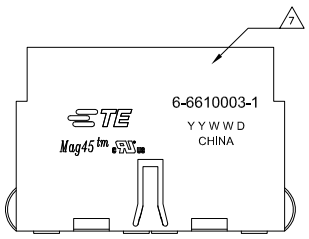
THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION -.-- .

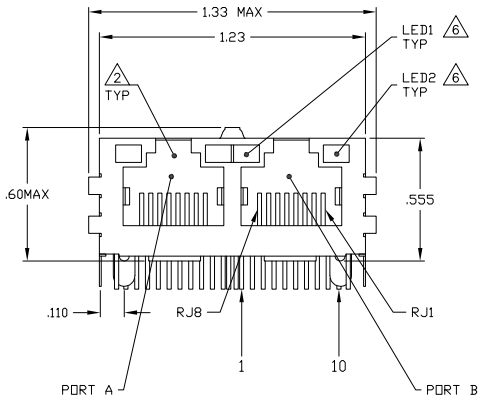
LOC	DIST
AA	22

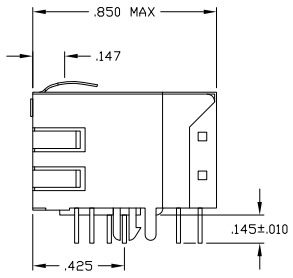
REVISIONS

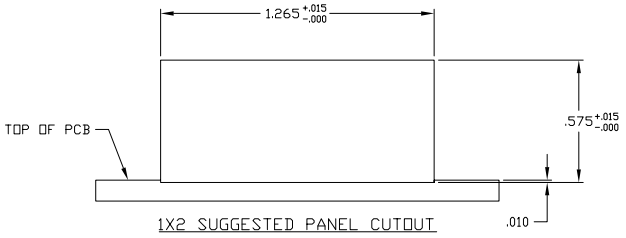
#	LTR	DESCRIPTION	DATE	DWN	APVD
	C	REV PER ECO-08-021860	08APR2008	VL	TX
	C1	REVISED PER ECO-09-024927	10NOV09	KK	AEG
	D	ECO-11-013928	30MAY2011	EL	LR

MECHANICAL:









1X2 SUGGESTED PANEL CUTOUT

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 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): 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
33-20xLOG(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 AND WITH ALL PORTS CONNECTED.

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

5. INDICATED MAGNETIC CONNECTIONS ARE SYMMETRICAL TO ACCOMODATE AUTO-MDI/MDIX.

6. 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

7. TE CONNECTIVITY 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.

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

DECOUPLING CAPACITOR	LED1	250 OHMS RESISTOR 6	LED2	250 OHMS RESISTOR 6	PART NUMBER
YES	GREEN	YES	GREEN	YES	6-6610003-1
YES	GREEN	NO	YELLOW	NO	5-6610003-8
YES	YELLOW	YES	GREEN	YES	5-6610003-2
9 OBSOLETE YES	GREEN	YES	YELLOW	YES	~~5-6610003-1~~

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: INCHES. TOLERANCES UNLESS SPECIFIED: 0 PLC ± -, 1 PLC ± .1, 2 PLC ± .02, 3 PLC ± .005, 4 PLC ± .-, ANGLES ± -

MATERIAL 1

FINISH 1

DWN L. VARELA -- DOCKS 13MAY2008
CHK D. FABOLE
APVD D. FABOLE 13MAY2008
PRODUCT SPEC 108-2100
APPLICATION SPEC —
WEIGHT —

TE Connectivity

TITLE: 1X2 MAG45(TM) MODULAR JACK, 7G1P1 SCHEMATIC, 7G21P1 GIGABIT CIRCUIT (10 PIN HORIZONTAL), SHIELDED, WITH LEDS

SIZE A1 | CAGE CODE 00779 | DRAWING NO C-6610003 | RESTRICTED TO —

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

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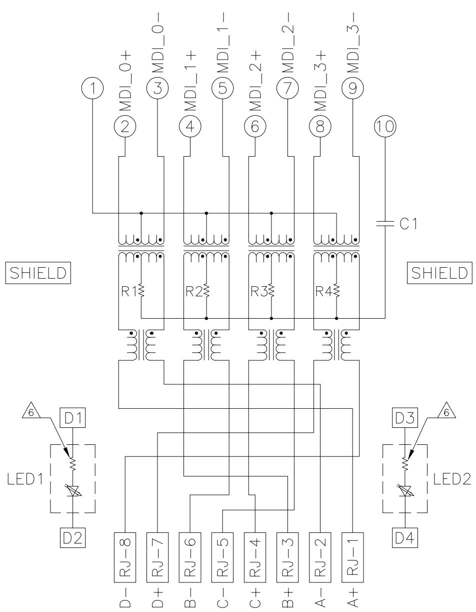
LOC	DIST
AA	22

REVISIONS

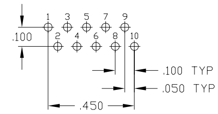
P	LTR	DESCRIPTION	DATE	DWN	APVD
	–	SEE SHEET 1	–	–	–

7G01P1 GIGABIT MAGNETIC CIRCUIT 3 5

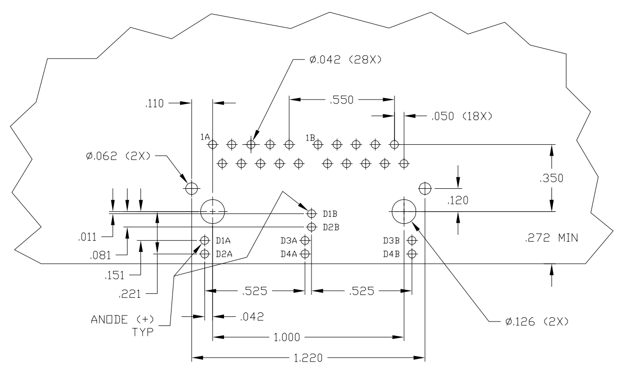


C1 = 1000pF, 2kV CAPACITOR

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



PIN DESIGNATION



SUGGESTED PCB LAYOUT

(Component Side)

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN 15MAR2005 L. VARELA – DOCK5	TE Connectivity
DIMENSIONS: INCHES	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± – 1 PLC ± – 2 PLC ± .010 3 PLC ± .005 4 PLC ± – ANGLES ± –	CHK 15MAR2005 D. FAROLE	NAME 1X2 MAG45(TM) MODULAR JACK, 7G1P1 SCHEMATIC, 7G01P1 GIGABIT CIRCUIT (10 PIN HORIZONTAL), SHIELDED, WITH LEDS
		APVD 15MAR2005 D. FAROLE	
		PRODUCT SPEC 108–2100	
		APPLICATION SPEC –	SIZE A1 · CAGE CODE 00779 · DRAWING NO C-6610003 · RESTRICTED TO –
MATERIAL –	FINISH –	WEIGHT –	
		CUSTOMER DRAWING	SCALE 4:1 · SHEET 2 OF 2 · REV D

AMP 4805 REV 31MAR2000