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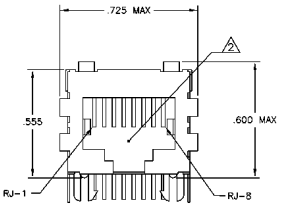
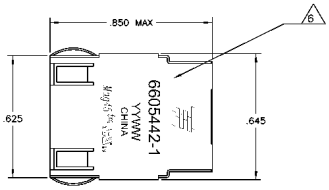
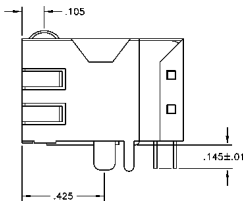
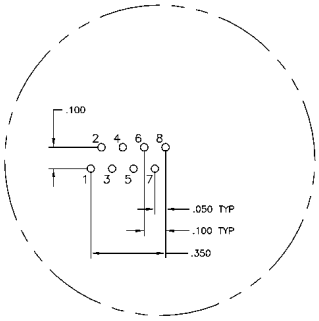
REV	DIST	REVISIONS					
AA	22	P	LTR	DESCRIPTION	DATE	DWN	APVD
			D	REV PER ECO-06-030299	12Mar2006	VL	TX

MECHANICAL:









Pin Designations

NOTES

1. MATERIALS:
   HOUSING - THERMOPLASTIC, GLASS REINFORCED POLYESTER, FLAMMABILITY RATING UL 94V-0.
   SHIELD - .010" THICK, C26800 BRASS, PRE-PLATED WITH 30µinch MIN SEMI-BRIGHT NICKEL, SOLDER TABS POST-DIPPED WITH 180µinch MIN SAN SOLDER.
   MOD JACK CONTACTS - .013" x .016", PHOSPHOR BRONZE, 50µinch MIN OVERALL NICKEL UNDERPLATE, WITH SELECTIVE 50µinch MIN GOLD FLASH PLATE, SOLDER TAILS WITH 100µinch MIN MATTE TIN AND/OR SAN SOLDER DIP.

2. RISK LEVEL CAV. Y CONFORMS TO FCC RULES AND REGULATIONS PART 68, SUBPART F.

3. MAGNETICS
   -APPROVALS: CN 60950 BASE-T
   IMPEDANCE: 100 OHMS
   TURNS RATIO SELECTABLE: 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 SPEC:
   INSERTION LOSS (IL): 1.1dB MAX FROM 0.5MHz TO 30MHz
   RETURN LOSS (RL): 18dB MIN FROM 0.5MHz TO 30MHz
   18-21LOG(f/20MHz) MIN FROM 30MHz TO 60MHz
   12dB MIN FROM 60MHz TO 80MHz
   CROSSTALK ATTENUATION: 35dB MIN FROM 0.5MHz TO 10MHz
   30-20LOG(f/50MHz) MIN FROM 10MHz TO 60MHz
   COMMON MODE REJECTION RATIO (CMRR): 35dB MIN FROM 0.5MHz TO 60MHz
   ISOLATION VOLTAGE: COMPLIES WITH IEC60950 2002 PARA 2.5.1 TEMPB

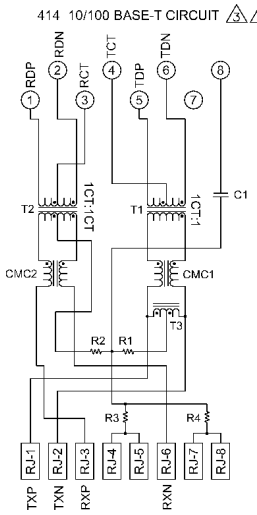
4. OPERATING TEMPERATURE: FROM 0°C TO 70°C

5. INDICATOR CONNECTIONS ARE FOR NO CONFIGURATION. THE MAGNETICS ARE ASYMMETRICAL AND THEREFORE DO NOT SUPPORT AUTO MDI/MDIX

6. TYCO ELECTRONICS LOGO, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN AND AGENCY APPROVAL MARKING IS APPROXIMATE LOCATION SHOWN.

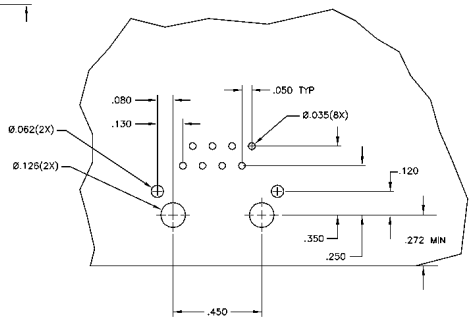
7. THIS PART IS RECOMMENDED FOR WAVE SOLDERING PROCESS, PREHEAT TEMPERATURE IS 120°C TO 150°C, 120 SECONDS TO 180 SECONDS, PEAK WAVE SOLDERING TEMPERATURE IS 260°C MAX, 10 SECONDS MAX

414 10/100 BASE-T CIRCUIT 3 5

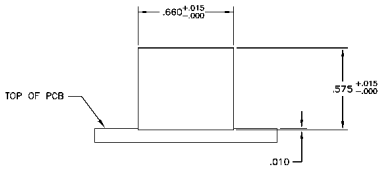


C1=1000 pF, 2kV DECOUPLING CAPACITOR

R1–R4 = 75 OHMS, 1/16 W RESISTORS



Suggested PCB Layout
(Component Side)



Suggested Panel Cutout

6605442-1
PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.	DR S.GRZYBOWSKI	Tyco Electronics	Tyco Electronics Corporation Kang Ping, China
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	CK D.FARGLE	NAME 1X1 MAG45(TM), MODULAR JACK, 4N2 SCHEMATIC, 414 SERIES CIRCUIT, SHIELDED, DECOUPLING CAPACITOR, NO LEDS	
	APVD D.FARGLE		
	PRODUCT SPEC 108-2100		
	APPLICATION SPEC —	SIZE A1 / CAGE CODE 00779 / DRAWING NO C-6605442	RESTRICTED TO —
MATERIAL —	WEIGHT —		
FINISH —	CUSTOMER DRAWING	SCALE NTS / SHEET 1 OF 1	REV D