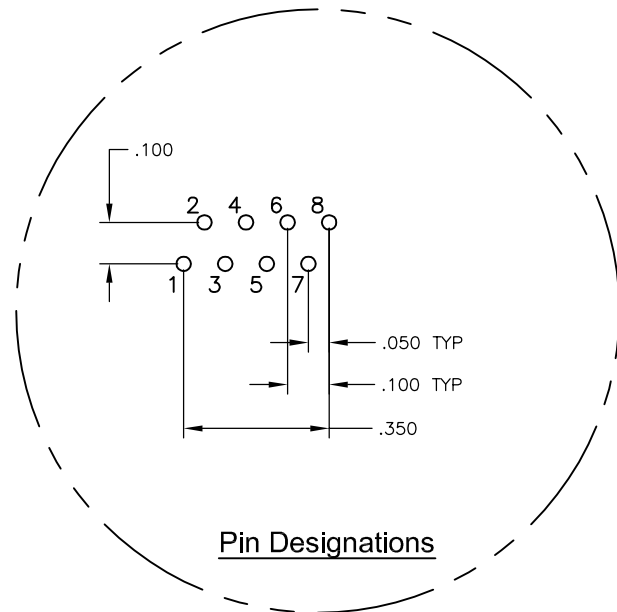
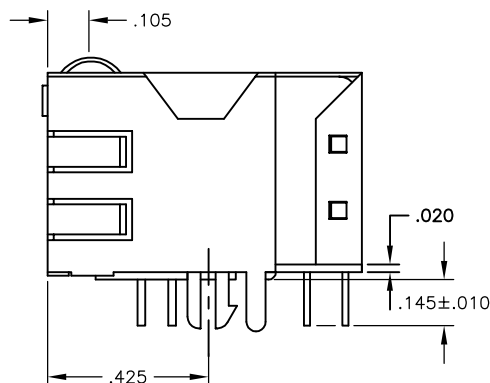
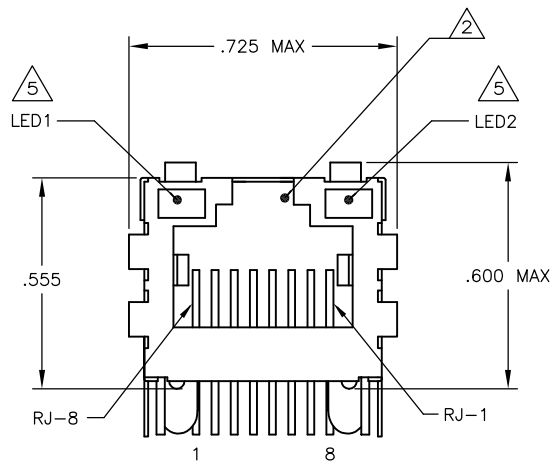
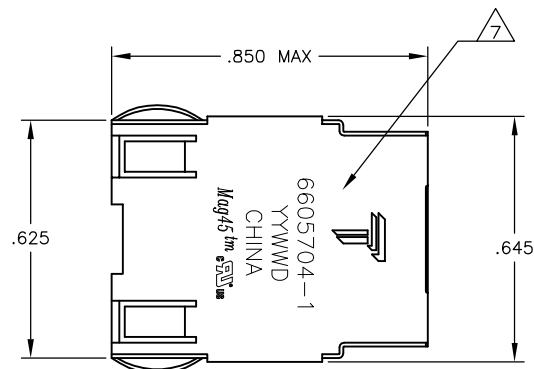
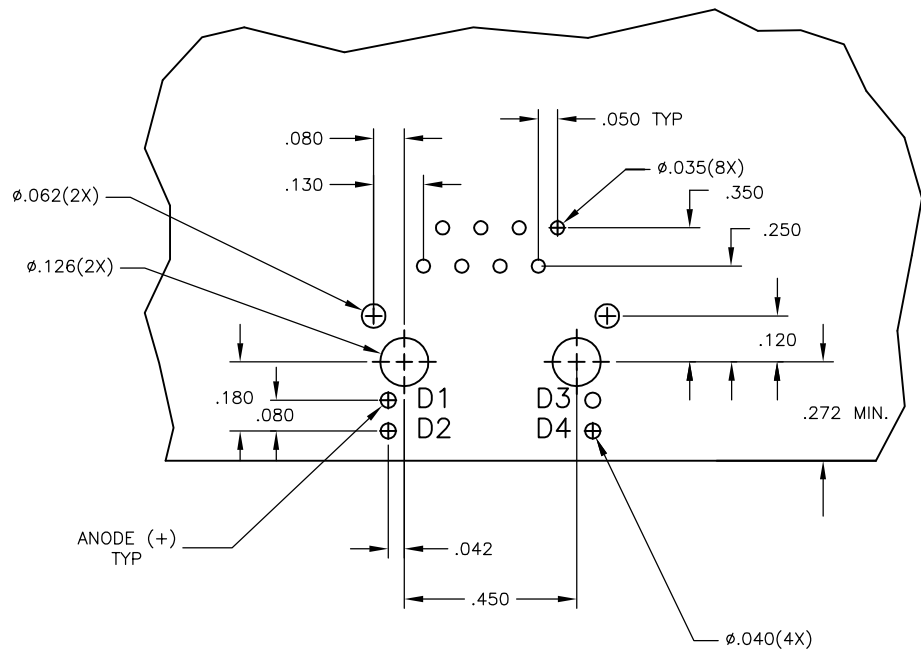


| REVISIONS |     |             |           |     |      |
|-----------|-----|-------------|-----------|-----|------|
| P         | LTR | DESCRIPTION | DATE      | DWN | APVD |
|           | E   | LOGO CHANGE | 23APR2013 | JC  | KZ   |

**MECHANICAL:**



## Pin Designations

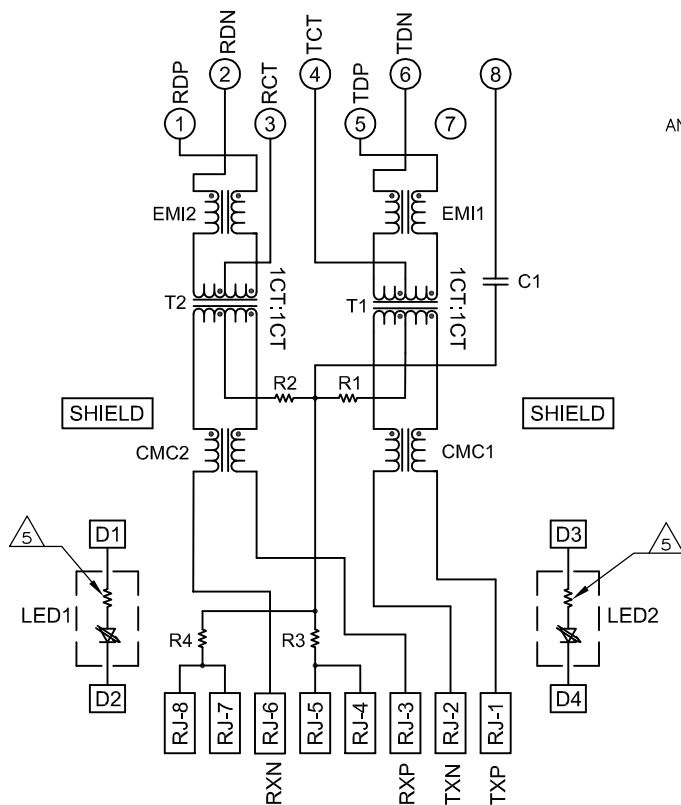


### Suggested PCB Layout

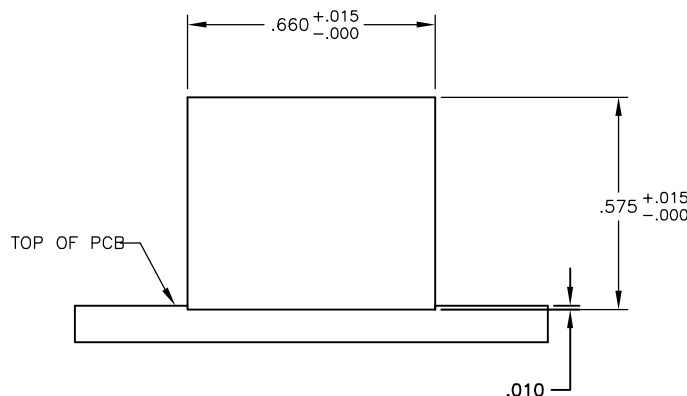
(Component Side)

ELECTRICAL:

## 706ET MAGNETIC CIRCUIT



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



### 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 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): TX = 1:1, RX = 1:1  
 -OPEN CIRCUIT INDUCTANCE (OCL): 350μH MIN @100kHz, 0.1VRMS, 8mA DC BIAS FROM -40°C TO +85°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  
     33-20XLOG(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.
4. OPERATING TEMPERATURE: FROM -40°C TO +85°C INDUSTRIAL TEMPERATURE RATED.
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. INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE SYMMETRIC, AND SUPPORT AUTO-MDI/MDIX.
7. TRP CONNECTOR LOGO,TE CONNECTIVITY 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.

|                                                                                       |                                                                                            |                                                                                                                                                |        |                                                                                                                                         |             |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------|
| YES                                                                                   | YELLOW                                                                                     | NO                                                                                                                                             | GREEN  | NO                                                                                                                                      | 5-6605704-9 |
| NO                                                                                    | GREEN                                                                                      | YES                                                                                                                                            | YELLOW | YES                                                                                                                                     | 6605704-1   |
| 2KV DECOUPLING CAPACITOR                                                              | LED1  | 250 OHMS RESISTOR                                         | LED2   | 250 OHMS RESISTOR                                  | PART NUMBER |
| THIS DRAWING IS A CONTROL DOCUMENT.                                                   |                                                                                            |                                                                                                                                                |        |                                                                                                                                         |             |
| DIMENSIONS:<br>INCHES                                                                 |                                                                                            | TOLERANCES UNLESS OTHERWISE SPECIFIED:<br>0 PCL ± -<br>1 PCL ± -<br>2 PCL ± .010<br>3 PCL ± .005<br>4 PCL ± -<br>ANGLES ± -<br>MATERIAL FINISH |        |  TRP connector<br>Dongguan China                   |             |
|  |                                                                                            | DRAWING NO<br>108-2100<br>APPLICATION SPEC                                                                                                     |        | MFR1 MAG45(TM), MODULAR JACK, 72NET INDUSTRIAL TEMP SCHEMATIC, 706ET SERIES CIRCUIT, SHIELDED, OPTIONAL DECOUPLING CAPACITOR, WITH LEDS |             |
|  |                                                                                            | WEIGHT -<br>CUSTOMER DRAWING                                                                                                                   |        | SIZE CASE CODE<br>A1<br>DRAWING NO<br>C-6605704<br>RESTRICTED TO -<br>SCALE NTS SHEET 1 OF 1 REV E                                      |             |