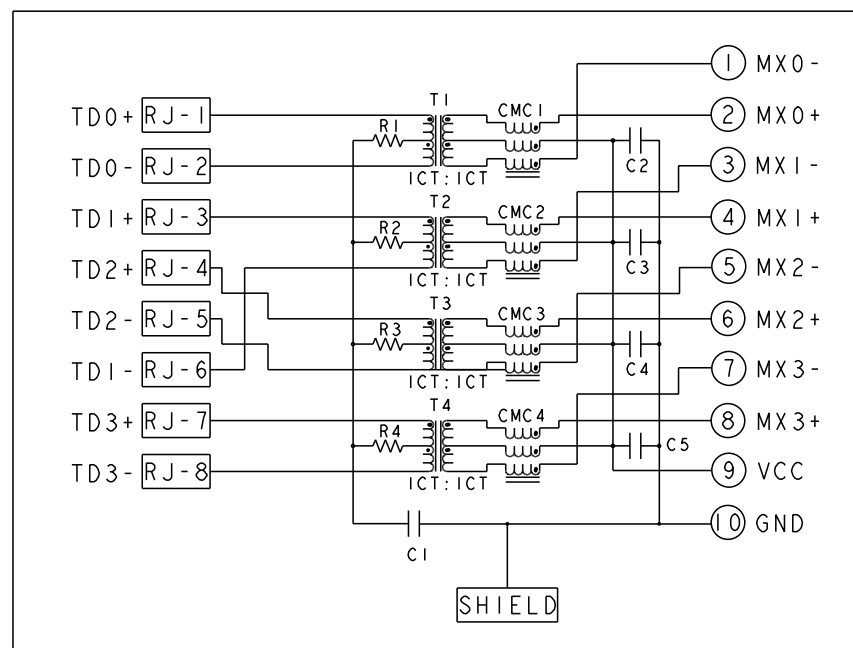


- △ MATERIALS:
- HOUSING: THERMOPLASTIC, BLACK, FLAMMABILITY RATING UL 94V-0.
  - SHIELD: BRASS, PREPLATED WITH 0.76um MIN SEMI-BRIGHT NICKEL, POST DIPPED WITH 2.54um MIN SAC SOLDER ON SOLDER TAILS.
  - CONTACTS: PHOSPHOR BRONZE, PLATED WITH 1.27um MIN OVERALL NICKEL UNDERPLATE, SELECTIVE 1.27um MIN GOLD AT MATING INTERFACE AND 2.54um MIN MATTE TIN ON SOLDER TAILS.
  - LED: DIFFUSED EPOXY LENS, CARBON STEEL LEAD FRAME LEADS, PREPLATED WITH 2.03um MIN SILVER OVER 1.02um MIN NICKEL OVER 1.02um MIN COPPER UNDERPLATE, POST PLATED WITH 2.54um MIN MATTE TIN AND/OR 2.54um MIN SAC SOLDER DIP OR PURE TIN SOLDER DIP.
- △ MAGNETICS:
- APPLICATION: 10/100/1000 BASE-T
  - IMPEDANCE: 100 ohm
  - TURNS RATIO (CHIP:CABLE): 1:1 ALL FOUR PAIRS
  - OPEN CIRCUIT INDUCTANCE (OCL): 350uH MIN @100kHz, 0.1VRMS, 8mA DC BIAS FROM 0°C TO 70°C, ALL FOUR PAIRS
  - RISE TIME(10%-90%): 2.5ns TYPICAL;
  - 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 a and b.

## S8G16 GIGABIT CIRCUIT

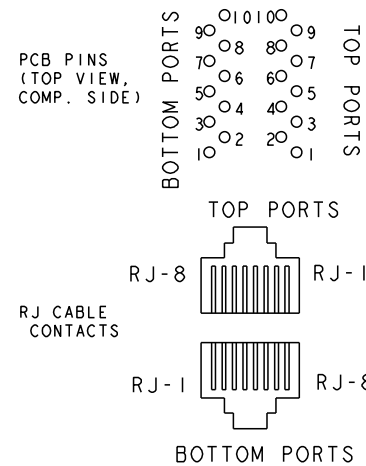
TOP AND BOTTOM PORTS △△



C1 = 1000pF, 3kV  
 C2 - C5 = 470pF, 10%, 50V  
 R1-R4 = 75 OHMS, 1/16W

### PIN DESIGNATIONS

(REPEAT FOR EACH VERTICAL PAIR OF PORTS)



- △ PART NUMBER, DATE CODE AND COUNTRY OF ORIGIN ARE LOCATED IN THE APPROXIMATE AREA SHOWN. DATE CODE "YY" IS THE YEAR, "WW" IS THE WEEK, "D" IS THE DAY OF WEEK, WITH SUNDAY="1".
- △ TRP LOGO AND AGENCY APPROVAL LOGO ARE LOCATED IN THE APPROXIMATE AREA SHOWN.
- △ RJ45 CAVITIES CONFORM TO FCC RULES AND REGULATIONS PART 68 SUBPART F.
- △ LED ARE DRIVEN WITH CONSTANT CURRENT AT APPROX. 20mA  
 DOMINANT WAVELENGTH (λD)  
 GREEN, 568nm TYP at IF=20mA  
 YELLOW, 588nm TYP at IF=20mA  
 FORWARD VOLTAGE (VF):  
 GREEN, 2.2V TYP at IF=20mA  
 YELLOW, 2.1V TYP at IF=20mA
- △ INDICATED MAGNETIC CONNECTIONS ARE SYMMETRICAL AND SUPPORT AUTO-MDI/MDIX.
- 8 OPERATING TEMPERATURE: FROM 0°C TO 70°C
- 9 THE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS, PEAK TEMPERATURE 265 °C MAX. 10 SECONDS MAX. IT IS RECOMMENDED THAT THE CONNECTOR SHIELD AND BODY BE MASKED TO PROTECT IT FROM DIRECT EXPOSURE TO THE SOLDER WAVE TO AVOID DAMAGE TO THE CONNECTOR AND LEDS.

2.80	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	7	1-1840215-4
2.50	GREEN	YELLOW	GREEN	YELLOW	7	1840215-5
3.30	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	7	1840215-4
3.30	YELLOW	GREEN	GREEN	YELLOW	7	1840215-3
3.30	GREEN	YELLOW	GREEN	YELLOW	7	1840215-2
3.30	GREEN	GREEN	GREEN	GREEN	7	1840215-1
DIM A	BOTTOM LED 2 (LEFT)	BOTTOM LED 1 (RIGHT)	TOP LED 2 (LEFT)	TOP LED 1 (RIGHT)	REAR PCB GND TABS	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.

APPROVED: WAVE XU, DENNIS CHEN, TEDDY XIANG

DATE: 15SEP2006

MODEL NAME: MAGJACK

DESC: 2X8 S8G16 GIGABIT OFFSET W/ LED

SIZE: A1

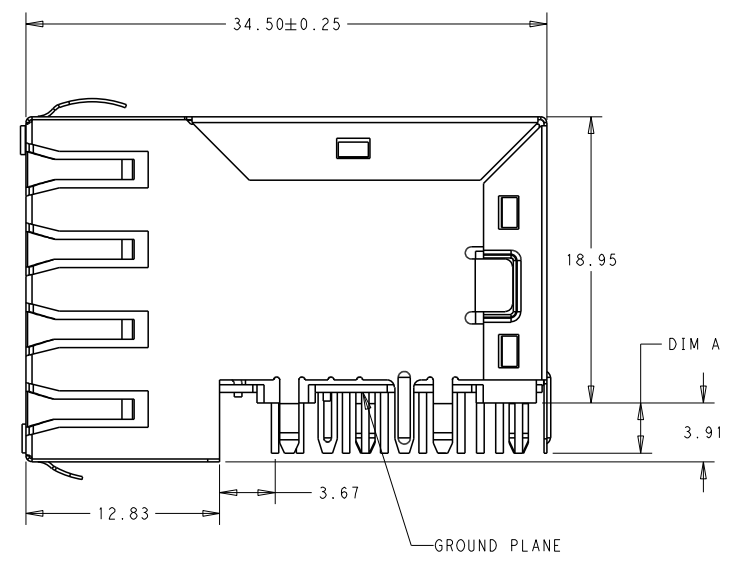
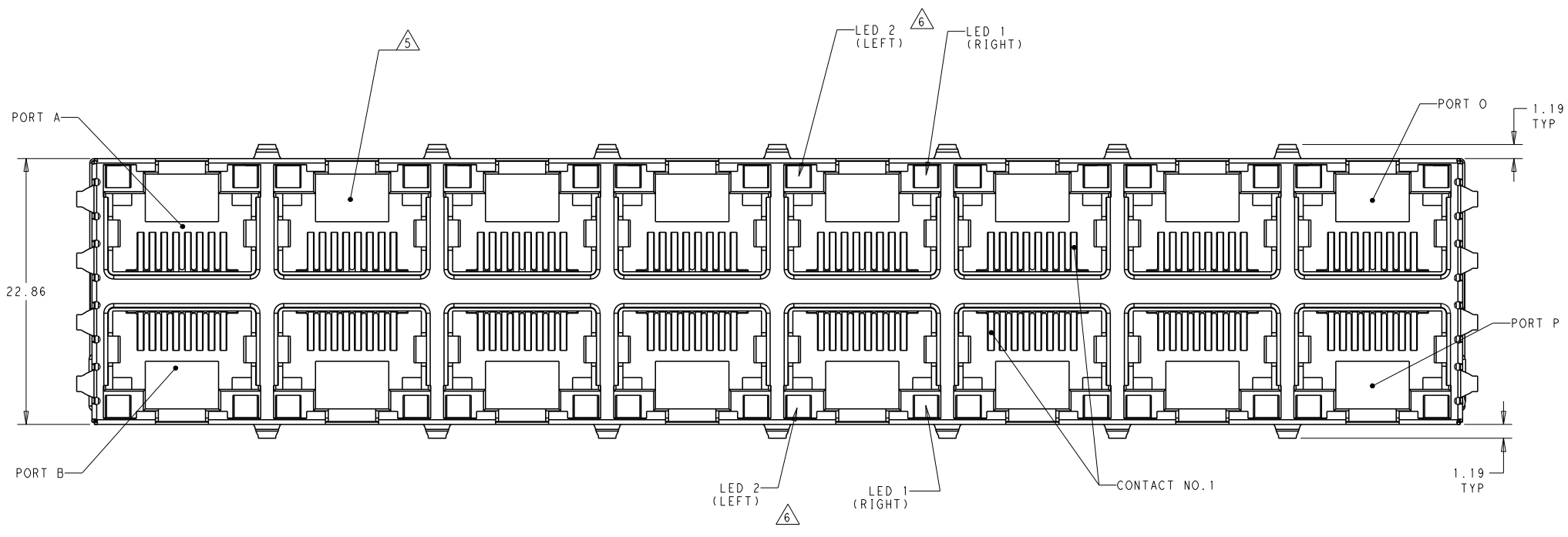
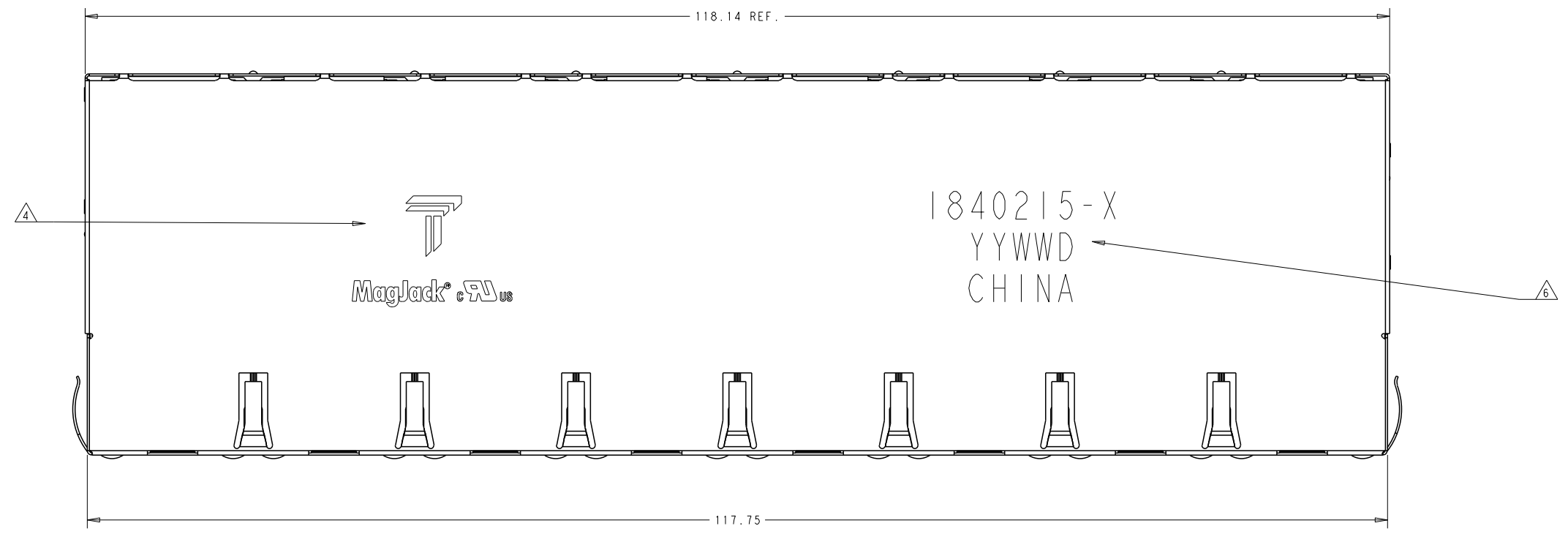
SCALE: 4:1


SHEET 1 OF 4

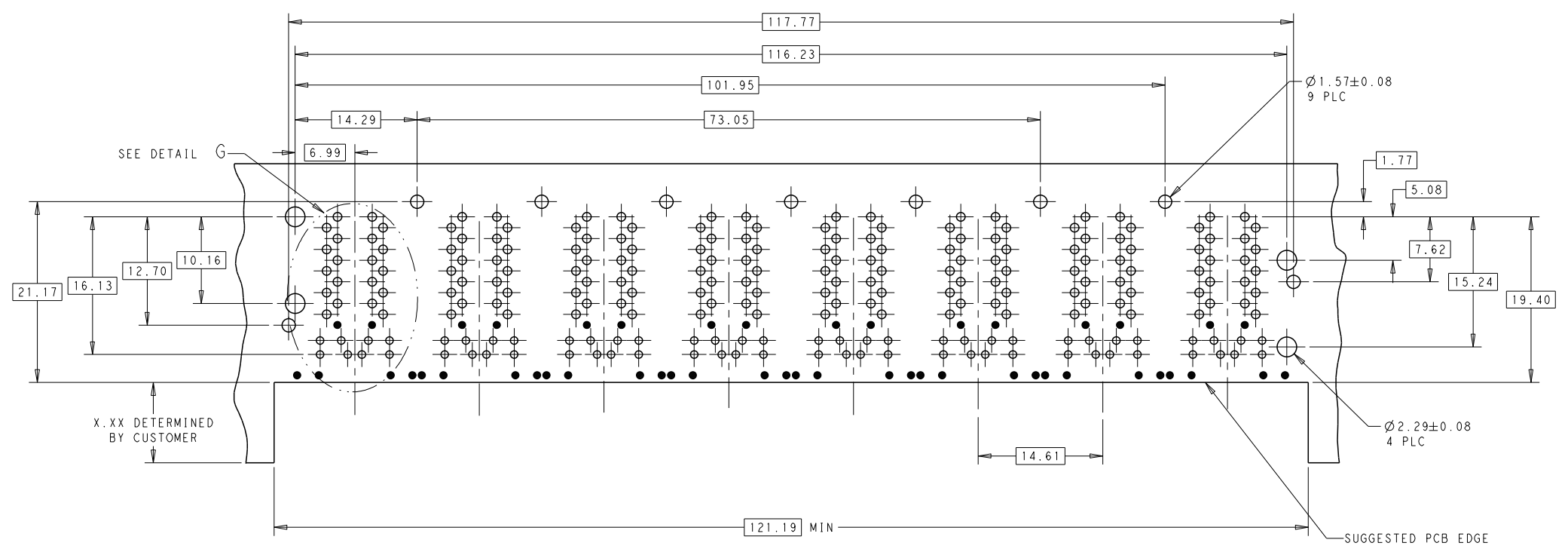
REV H

TRP CONNECTOR DONGGUAN CHINA

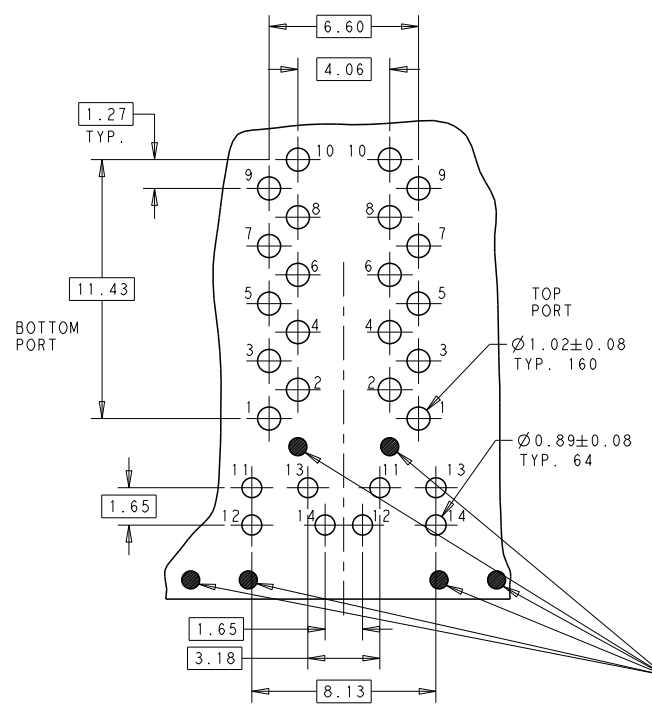
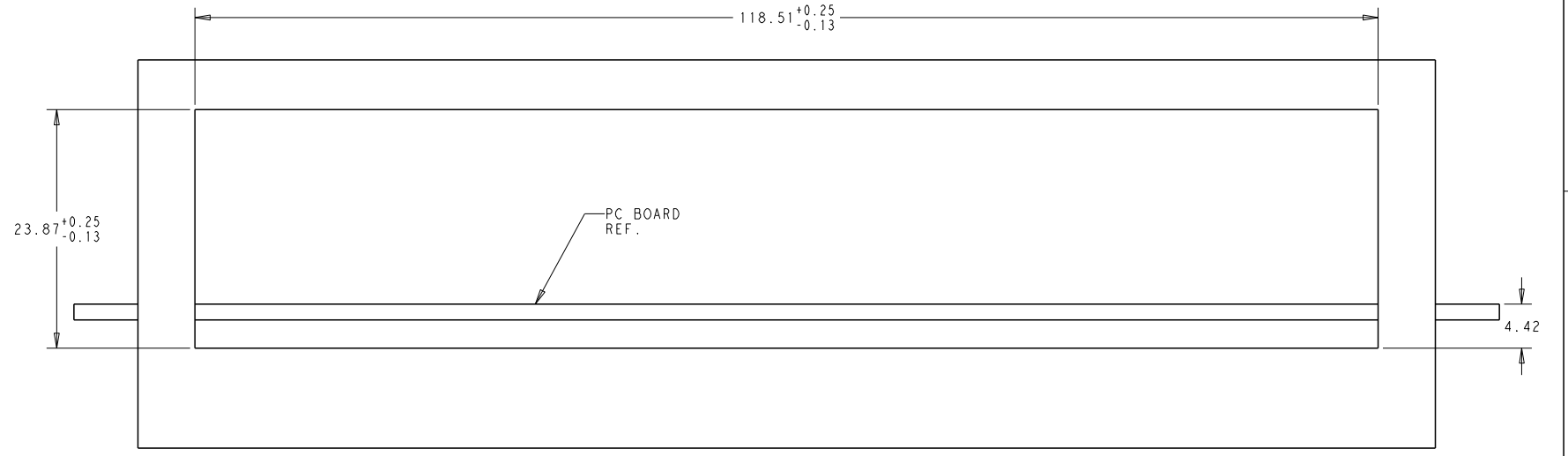
108-104004



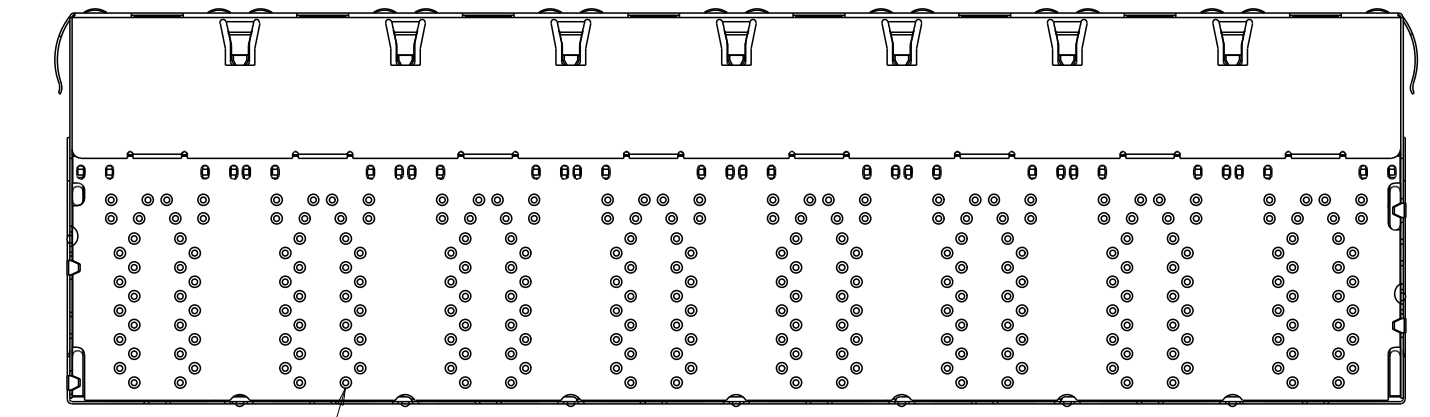
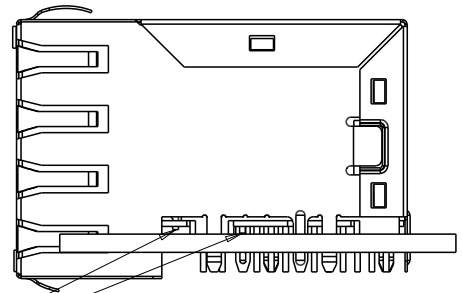
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN: WAVE XU 15SEP2006	 <b>trp</b> CONNECTOR a bel group	DONGGUAN CHINA	
DIMENSIONS: mm		CHK: DENNIS CHEN 15SEP2006		MODEL NAME	DESC
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APP'D: TEDDY XIANG 15SEP2006		MAGJACK	2X8 S8G16 GIGABIT OFFSET W/ LED
0 PLC ± 1 PLC ±0.25 2 PLC ±0.25 3 PLC ±0.25 4 PLC ± ANGLES ±	APPLICATION SPEC -	PRODUCT SPEC 108-104004	SIZE: A1 CAGE CODE: 1840215 DRAWING NO: 1840215	RESTRICTED TO -	
CUSTOMER DRAWING			SCALE: 4:1	SHEET 2 OF 4 REV H	



RECOMMENDED PC BOARD LAYOUT VIEW FROM COMPONENT SIDE



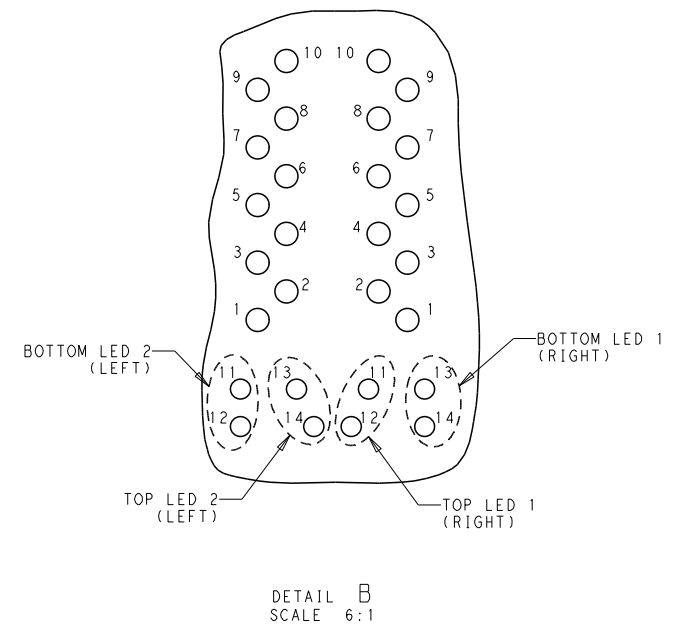
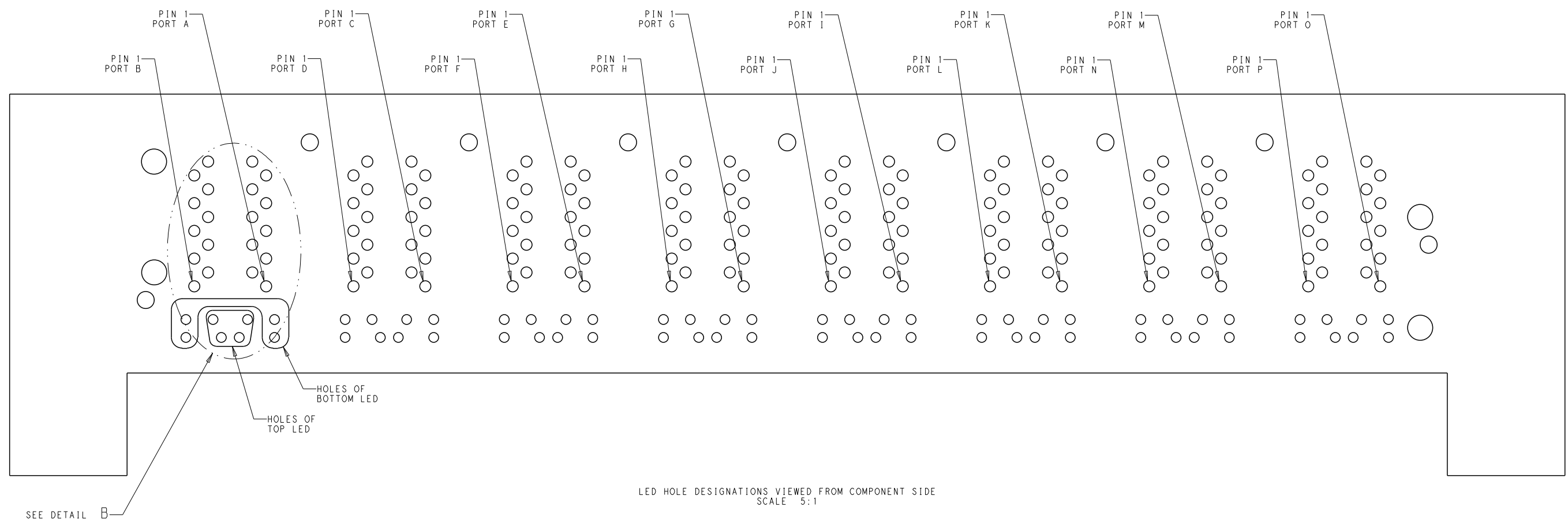
PIN #0, BOTTOM LED'S PIN ON MOD JACK AND BOTTOM PCB ARE STUB PINS WITH LENGTH SIMILAR TO PCB STANDOFF HEIGHT PRECAUTIONS SHOULD BE TAKEN IN PCB DESIGN TO GUARD AGAINST SHORTING TRACES TO STUB PINS



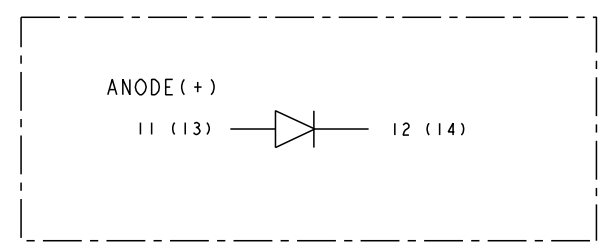
ALL THE SIGNAL PINS MUST BE SOLDERED WITH BOTTOM PCB

DETAIL G SCALE 6:1

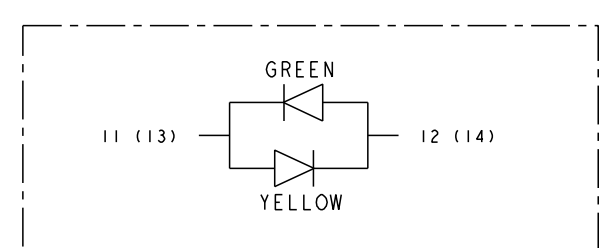
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN: WAVE XU 15SEP2006	 DONGGUAN CHINA
DIMENSIONS: mm		CHK: DENNIS CHEN 15SEP2006	
TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± 1 PLC ±0.25 2 PLC ±0.25 3 PLC ±0.25 4 PLC ± ANGLES ±°		APP'D: TEDDY XIANG 15SEP2006	
PRODUCT SPEC: 108-104004	APPLICATION SPEC: -	MODEL NAME: MAGJACK	DESC: 2X8 S8G16 GIGABIT OFFSET W/ LED
CUSTOMER DRAWING		SIZE: A1	RESTRICTED TO: -
		CAGE CODE: -	DRAWING NO: 1840215
		SCALE: 3:1	SHEET 3 OF 4 REV H




SINGLE COLOR LED



BI COLOR LED



THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN: WAVE XU 15SEP2006	 DONGGUAN CHINA
DIMENSIONS: mm		CHK: DENNIS CHEN 15SEP2006	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APP'D: TEDDY XIONG 15SEP2006	
0 PLC ± 1 PLC ±0.25 2 PLC ±0.25 3 PLC ±0.25 4 PLC ± ANGLES ±	PRODUCT SPEC 108-104004	MODEL NAME MAGJACK STACK NON-PoE	DESC 2X8 S8G16 GIGABIT OFFSET W/ LED SIZE CAGE CODE DRAWING NO RESTRICTED TO A1 1840215 - CUSTOMER DRAWING SCALE 1:1 SHEET 4 OF 4 REV H