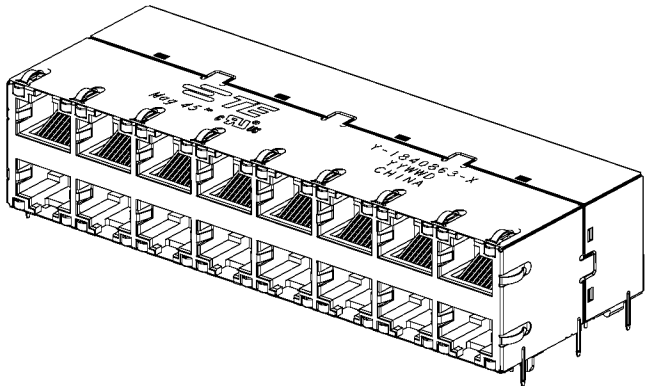
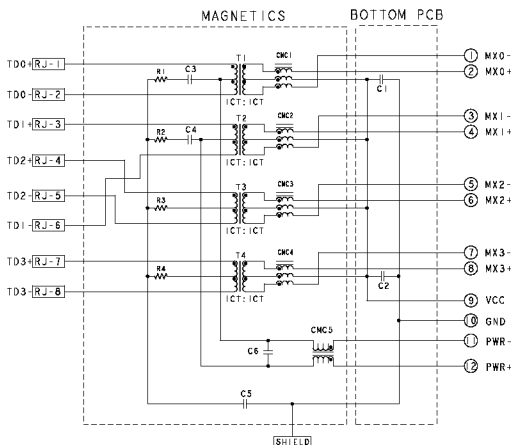


REV. NO.		REVISIONS		DATE	BY	APP'D
1	AA	00	INITIAL RELEASE			
2			SEE FINAL SHEET			



S9HG104 GIGABIT PoE PLUS CIRCUIT $\Delta\Delta$
 TOP AND BOTTOM PORTS



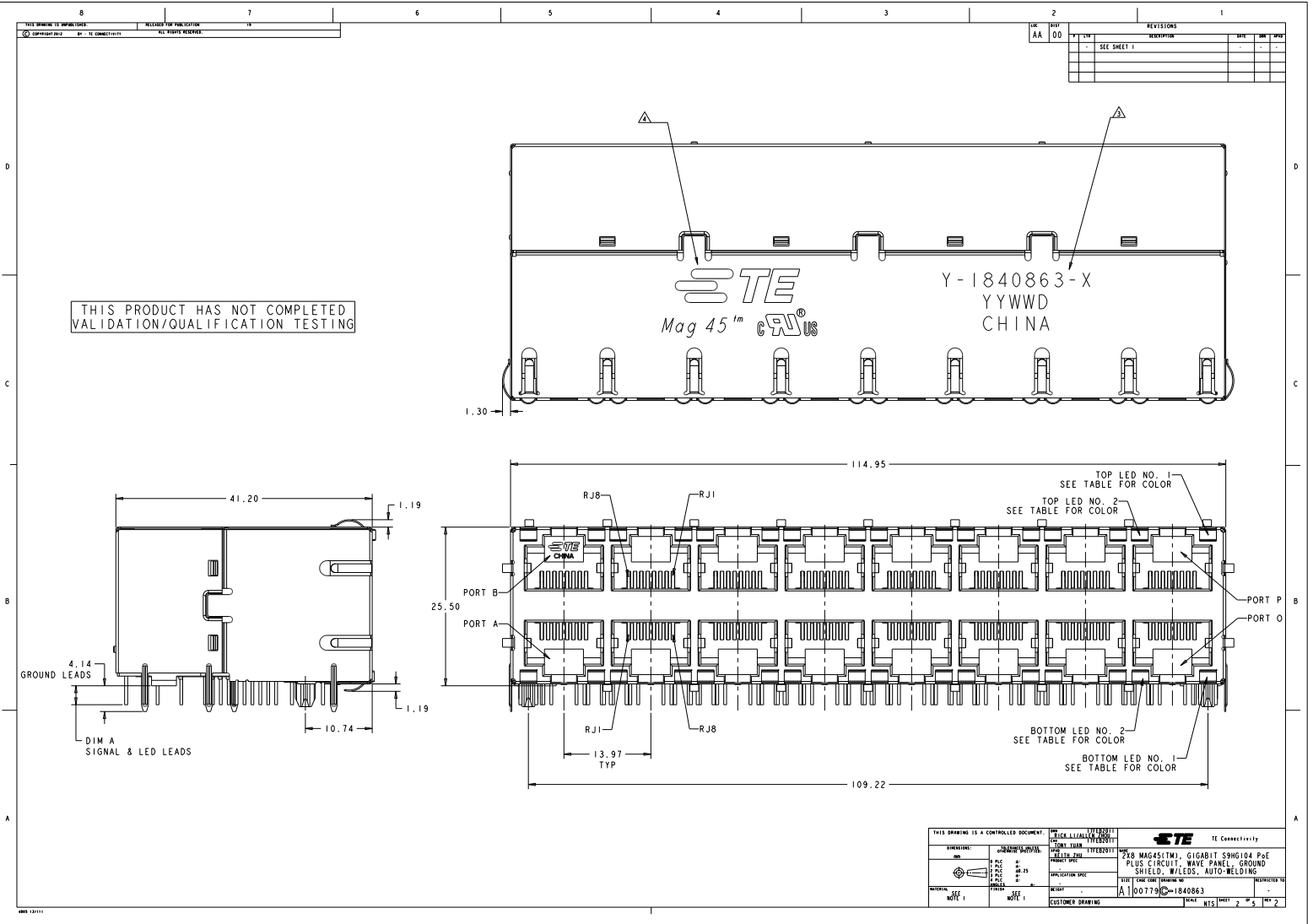
C1-C2=10nF, 50V, CAPACITORS
 C3-C4=22nF, 100V, CAPACITORS
 C5=1000pF, 2kV, CAPACITOR
 C6=68nF, 100V, CAPACITOR
 R1-R4=75 OHMS, 1/16W, RESISTORS

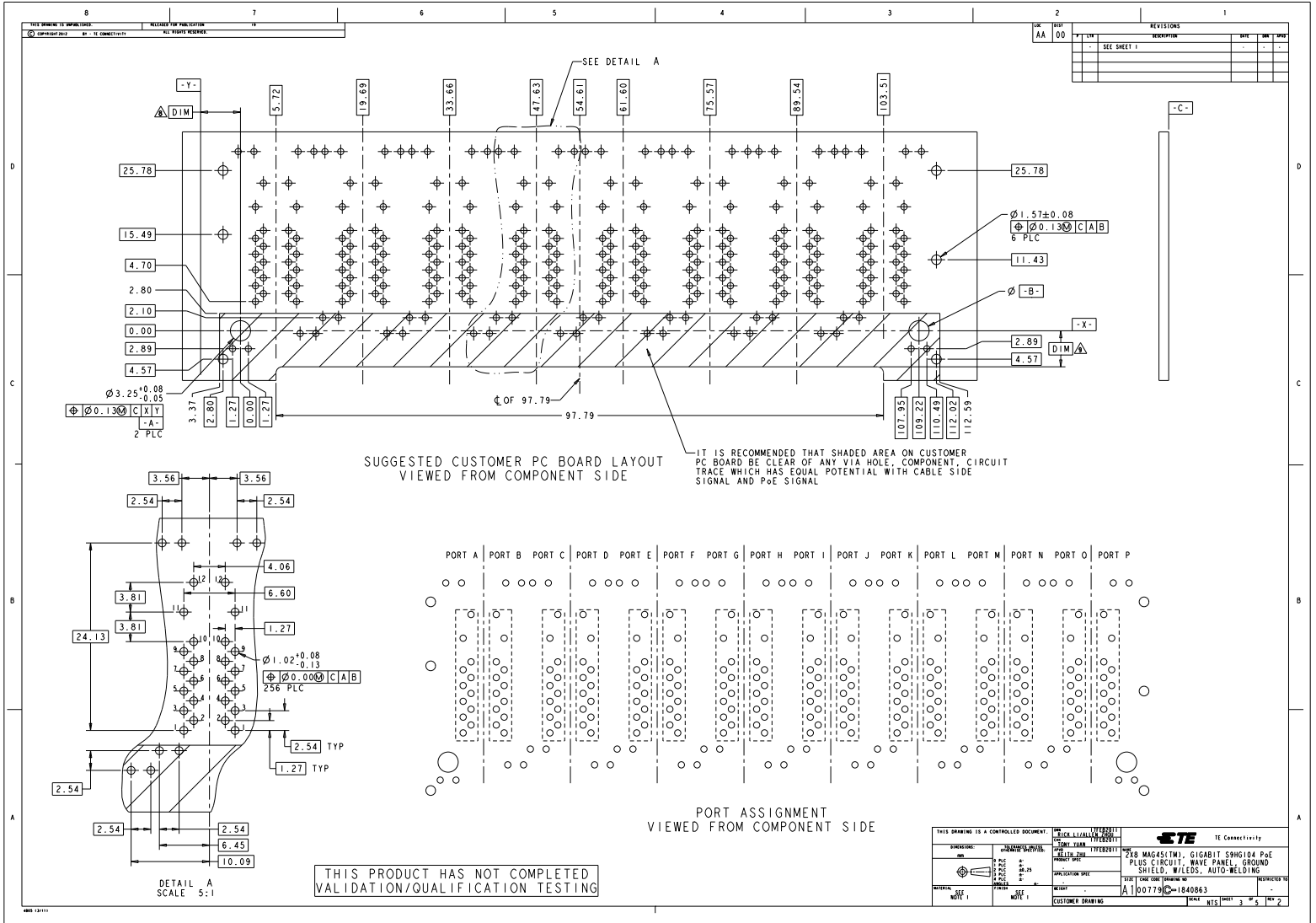
- MATERIALS:
 PLASTIC HOUSING: BLACK, THERMOPLASTIC FLAMMABILITY RATING UL 94V-0
 SHIELD: BRASS, PREPLATED WITH 0.76um MIN SEMI-BRIGHT NICKEL,
 POST-DIPPED WITH 2.54um MIN SAC SOLDER ON SOLDER TAILS.
 CONTACTS: PHOSPHOR BRONZE, 1.27um MIN OVERALL NICKEL UNDERPLATE
 WITH SELECT 1.27um MIN GOLD OR WITH SELECT 0.25um MIN GOLD OVER
 0.76um MIN PALLADIUM-NICKEL AT MATING INTERFACE AND 2.54um MIN
 MATTE TIN ON SOLDER TAILS.
 LED: DIFFUSED EPOXY LENS, CARBON STEEL LEAD FRAME TAILS OF LED
 ARE PREPLATED WITH 2.03um MIN SILVER OVER 1.02um MIN NICKEL
 UNDERPLATE OVER 1.02um MIN COPPER UNDERPLATE. POST-PLATED WITH
 2.54um MIN MATTE TIN AND/OR SAC SOLDER DIP OR PURE TIN SOLDER DIP
- MAGNETICS:
 APPLICATION: 10/100/1000 BASE-T, PoE PLUS
 IMPEDANCE: 100ohms
 TURNS RATIO (CHIP: CABLE): 1:1 ALL FOUR PAIRS
 OPEN CIRCUIT INDUCTANCE (OCL):
 ALL CHANNELS 350 uH MIN @ 100kHz, 0.1 VRMS WITH 8ma DC BIAS FROM 0°C TO 70°C,
 120 uH MIN @ 100kHz, 0.1 VRMS WITH 19 ma DC BIAS FROM 0°C TO 70°C, ACROSS
 RJ1-RJ2 & RJ3-RJ6
 ALL FOUR PAIRS BI-DIRECTIONAL
 POE CURRENT: 600mA DC MAX
 PERFORMANCE @25°C:
 INSERTION LOSS (IL): 1.1dB MAX FROM 1.0MHz TO 100MHz
 RETURN LOSS (RL): 18dB MIN FROM 1.0MHz TO 40MHz
 12-20LOG(F/80)dB MIN FROM 40.1MHz TO 100MHz
 CROSSTALK ATTENUATION: 35dB MIN FROM 1.0MHz TO 40MHz
 33-20LOG(F/50)dB MIN FROM 40.1MHz TO 100MHz
 COMMON MODE REJECTION RATIO (CMRR):
 30dB MIN FROM 1.0MHz TO 100MHz
 ISOLATION VOLTAGE: 2250VDC(MAX) FOR 60 SECONDS WITH A RISE TIME OF 500V/SEC
 AND WITH ALL PORTS CONNECTED.
- PART NUMBER, DATE CODE AND COUNTRY OF ORIGIN LOCATED IN APPROXIMATE AREA SHOWN
 DATE CODE: YYWW WHERE "YY" IS YEAR, "WW" IS WORK WEEK, "D" IS DAY OF WEEK,
 WITH SUNDAY = 1
- TE CONNECTIVITY LOGO AND AGENCY APPROVAL LOGO ARE LOCATED
 IN APPROXIMATE AREA SHOWN.
- OPERATING TEMP: FROM 0°C TO 70°C.
- RJ45 CAVITY CONFORMS TO FCC RULES AND REGULATION PART 68 SUBPART F.
- INDICATED MAGNETIC CONNECTIONS ARE SYMMETRICAL AND SUPPORT AUTO-WDI/MDIX.
- DATUM AND BASIC DIMENSION ESTABLISHED BY CUSTOMER.
- DIMENSION ESTABLISHED BY CUSTOMER, BUT MAY NOT BE
 GREATER THAN 5.08mm.
- LEDS ARE DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA
 LED COLOR: DOMINANT WAVELENGTH (LD): GREEN 568 nm TYP. @ IF=20mA
 FORWARD VOLTAGE (VF): GREEN 2.2V TYP. @ IF=20mA
 DOMINANT WAVELENGTH (LD): YELLOW 588 nm TYP. @ IF=20mA
 FORWARD VOLTAGE (VF): YELLOW 2.1V TYP. @ IF=20mA
- THESE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS, PEAK TEMPERATURE 260°C
 FOR 5 SECONDS

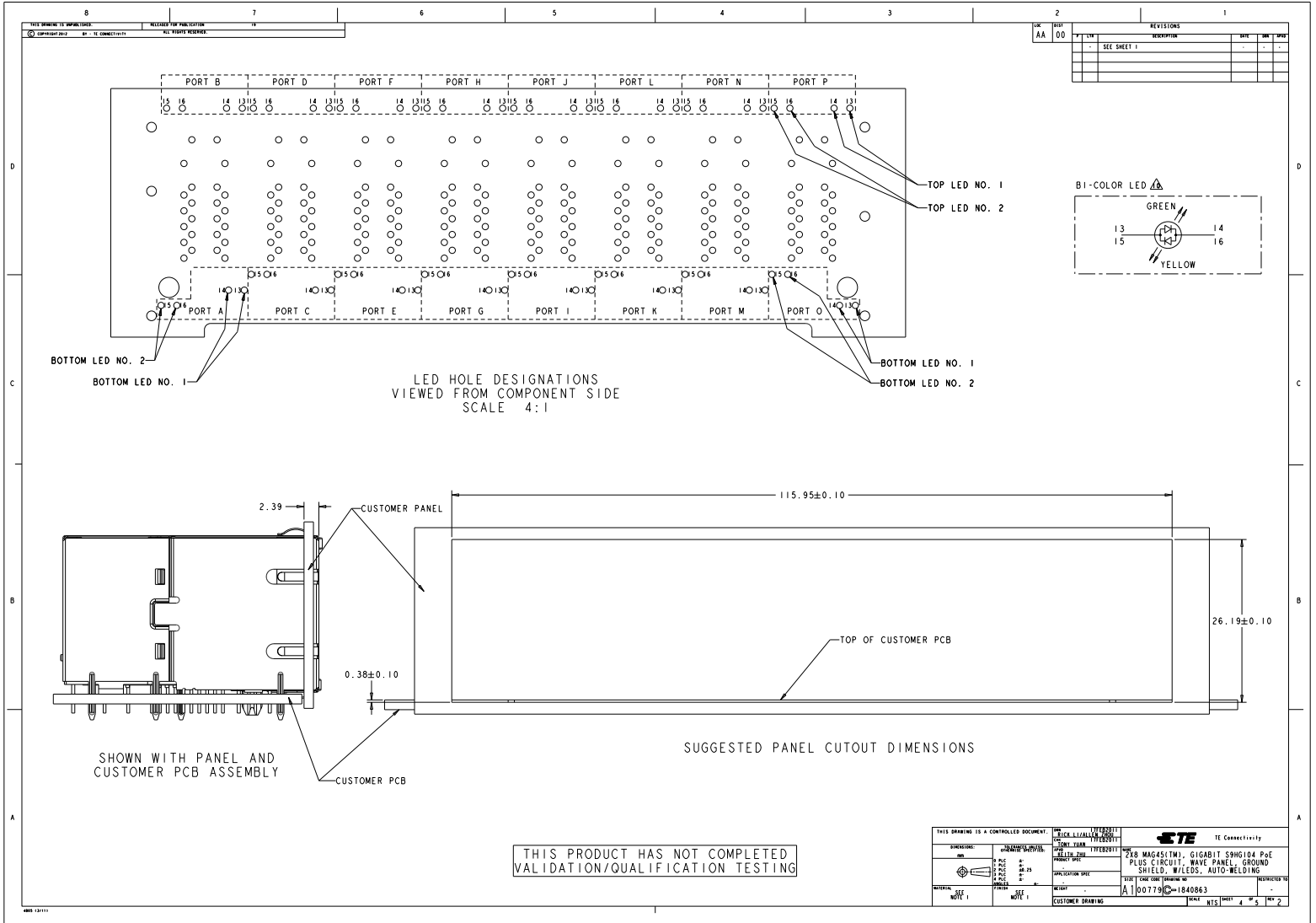
THIS PRODUCT HAS NOT COMPLETED
 VALIDATION/QUALIFICATION TESTING

DIM A	2.60	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	2-1840863-4
	3.81	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	GREEN/YELLOW	1-1840863-4
		BOTTOM LED	BOTTOM LED	TOP LED	TOP LED	PART NO.
		NO. 2	NO. 1	NO. 2	NO. 1	

PRELIMINARY







REVISONS				
REV	DATE	REVISION	BY	CHK
-	-	SEE SHEET 1	-	-
-	-	-	-	-
-	-	-	-	-

1840863				STOCK DISPOSITION				
218 MAG45(TM), GIGABIT SINGIDA P&E PLUS CIRCUIT, WAVE PANEL, GROUND SHIELD, W/LEDS, AUTO-WELDING				A: CONTINUE AS IS B: REWORK C: SCRAP				
D: USE OLD FIRST E: PARTS TO CONFORM F: OTHER								
REVISION HISTORY								
DATE	REV	CHANGES	REASON	APPROVAL	INVENTORY (A,B,C,D,E,F)	WORK IN PROCESS (A,B,C,D)	SUPPLIER ORDERS (A,E,F)	OPEN CUST ORDERS (A,E,F)
17FEB2011	1	INITIAL RELEASE	INITIAL RELEASE	KEITH ZHU	-	-	-	-
11JAN2012	2	SHEET 1: CHANGE THE CIRCUIT FROM S8HG04 TO S8HG104 SHEET 1 NOTE 1: ADD "PALLADIUM-NICKEL PLATING" OPTION ON CONTACTS NOTE 2: CHANGE OCL SPEC TO "ALL CHANNELS 350uH MIN @ 100VOLT, 0.1 UMS WITH 50mV DC BIAS FROM 0°C TO 70°C, 120uH MIN @ 100VOLT, 0.1 UMS WITH 10mV DC BIAS FROM 0°C TO 70°C, ACROSS RJ1-RJ2 & RJ3-RJ6 CHANGE LOGO TO NEW TE LOGO WHICH VIEW SHOWN	ENGINEERING CHANGE	KEITH ZHU	-	-	-	-

THIS PRODUCT HAS NOT COMPLETED
 VALIDATION/QUALIFICATION TESTING

THIS DRAWING IS A CONTROLLED DOCUMENT. THE DATE OF THE LAST REVISION IS 17FEB2011.

DIMENSIONS: 218 MAG45(TM), GIGABIT SINGIDA P&E PLUS CIRCUIT, WAVE PANEL, GROUND SHIELD, W/LEDS, AUTO-WELDING PART NUMBER: 1840863 WEIGHT: 0.0779g MATERIAL: SEE NOTE 1 FINISH: SEE NOTE 1 CUSTOMER DRAWING	DATE: 17FEB2011 DRAWN BY: KEITH ZHU CHECKED BY: KEITH ZHU APPROVED BY: KEITH ZHU TITLE: 218 MAG45(TM), GIGABIT SINGIDA P&E PLUS CIRCUIT, WAVE PANEL, GROUND SHIELD, W/LEDS, AUTO-WELDING PART NUMBER: 1840863 WEIGHT: 0.0779g MATERIAL: SEE NOTE 1 FINISH: SEE NOTE 1 CUSTOMER DRAWING
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TE Connectivity