

# CZT

## SPECIFICATION FOR APPROVAL

CUSTOMER \_\_\_\_\_

CUSTOMER'S PART NO. \_\_\_\_\_ REV. \_\_\_\_\_

DESCRIPTION RJ45 ICM (1000 Base-T 1Port)

CZT'S PART NO. JDGU13050607 REV. B

ISSUE NO. 15A-0023

ISSUE DATE NOV.26,2015

<input type="checkbox"/> APPROVED	<input type="checkbox"/> REJECTED:
<input type="checkbox"/> APPROVED UNDER THE CONDITIONS:	

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### Note:

1. This specification is the proprietary of Yihua Communicated Connector Co., Ltd. and is not allowed to be revealed to third party without any written approval.
2. This specification is valid within 1 year before approval, and for any updated specification information required, please contact with CZT's sales window before order releases.

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## SPECIFICATION FOR APPROVAL

### 1. Cover Page

Customer Part No.:  
CZT Part No.: JDGU13050607  
Part Name: RJ45 ICM(1000Base-T 1Port)

Rev.: B


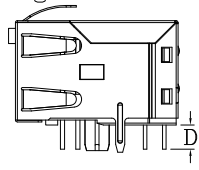
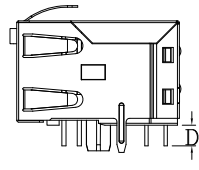


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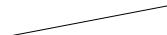
### 2. Revision Change Record

Customer Part No.: CZT Part No.: JDGU13050607 Part Name: RJ45 ICM(1000Base-T 1Port)					Rev.: B
					
Rev	Description	Drawn	Designed	Approved	Issue Date
A	Specification issued	ChenLingjuan	ZhangChao	Topup. Liu	OCT. 19 2015
B	<p>Change From:</p>  <p>UNIT : mm / inch D = 3.20 / 0.126 Unless otherwise specified,all dimensions tolerances is <math>\pm 0.254</math> / 0.010.</p>	ChenLingjuan	ZhangChao	Topup. Liu	NOV. 26 2015
	<p>To:</p>  <p>UNIT : mm / inch D = 2.75 / 0.108 Unless otherwise specified,all dimensions tolerances is <math>\pm 0.254</math> / 0.010.</p>				

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### 3. Deviation Request

Customer Part No.: CZT Part No.: JDGU13050607 Part Name: RJ45 ICM(1000Base-T 1Port)		Rev.: B
		
Original Spec	Spec For Deviation Request	Reasons For Request
Drawn by 	Designed by ZhangChao	Approved by Topup.Liu

# CZT

## SPECIFICATION FOR APPROVAL

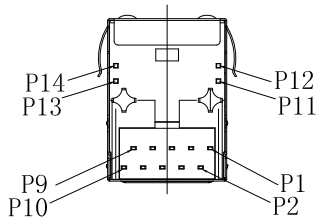
Customer Part No.:  
 CZT Part No.: JDGU13050607  
 Part Name: RJ45 ICM(1000Base-T 1Port)

Rev.: B



### 4. Mechanical Dimension and Notes:

#### 4-1. Mechanical Dimension:



UNIT : mm / inch  
 A = 15.75 / 0.621  
 B = 13.80 / 0.544  
 C = 21.50 / 0.847  
 D = 2.75 / 0.108

Unless otherwise specified, all dimensions tolerances is  $\pm 0.254 / 0.010$ .

#### 4-2. Notes:

1. CONNECTOR MATERIAL:  
 HOUSING: THERMOPLASTIC BLACK UL94 V-0  
 SHIELD: Brass  
 SHIELD PLATING: NICKEL  
 CONTACT: PHOSPHOR BRONZE  
 CONTACT PLATING: SELECTIVE GOLD, 6 MICRO-INCHS MIN IN CONTACT AREA
2. PIN NOT ELECTRICALLY CONNECTED MAYBE OMITTED SEE ELECTRICAL DRAWING FOR OMITTED PINS
3. RJ45 CAVITIES CONFORM TO FCC RULES AND REGULATION PART 68.
4. THE PART IS RECOMMENDED FOR WAVE SOLDERING PROCESS PEAK SOLDERING TEMPERATURE IS 260° C MAX, 10 SECS MAX
5. OPERATING TEMPERATURE T=0° C TO +70° C.
6. STORAGE TEMPERATURE T=-40° C TO +85° C.

LED SPECIFICATION				
STANDARD LED	WAVELENGTH	Forward Current	Forward V(max)	TYP
GREEN	565nm	20 mA	2.4V	2.2V

Lens Color: White Diffused

Drawn by  
ChenLingjuan

Designed by  
ZhangChao

Approved by  
Topup.Liu

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Customer Part No.:  
CZT Part No.: JDGU13050607  
Part Name: RJ45 ICM(1000Base-T 1Port)

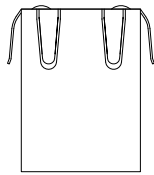
Rev.: B



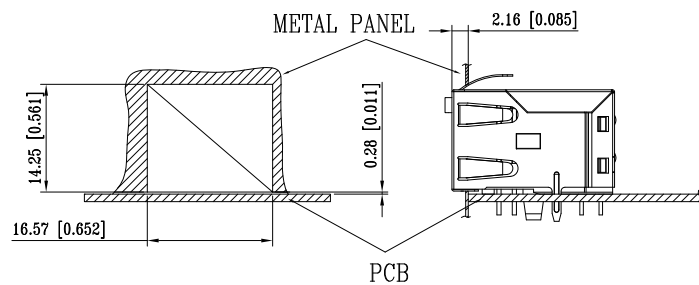
### 5. Label and Recommended PWB Layout and Suggested Panel Opening:

#### 5-1. Label:

Plug In Side



#### 5-2. Suggested Panel Opening:



UNIT: mm / inch  
Tolerances:  $\pm 0.10$  / 0.004

REFERENCE ONLY

# CZT

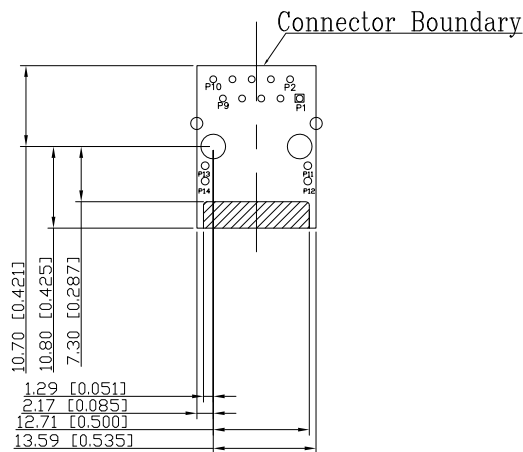
## SPECIFICATION FOR APPROVAL

Customer Part No.:  
 CZT Part No.: JDGU13050607  
 Part Name: RJ45 ICM(1000Base-T 1Port)

Rev.: B



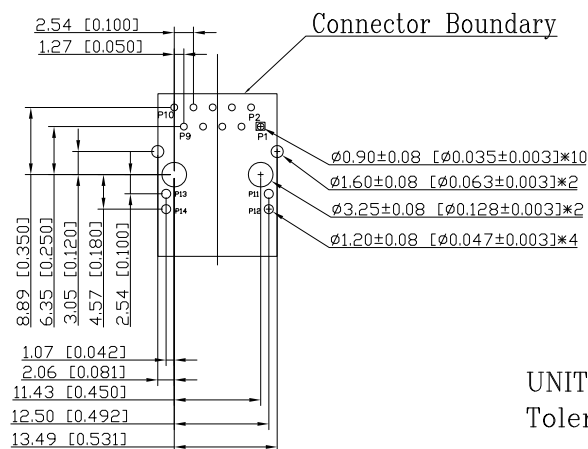
### 5-3. Keep-Out Area (Component Side View):



UNIT: mm / inch  
 Tolerances:  $\pm 0.10$  / 0.004

Plug In Side

### 5-4. Recommended PWB Layout (Component Side View):



UNIT: mm / inch  
 Tolerances:  $\pm 0.10$  / 0.004

Plug In Side

# CZT

## SPECIFICATION FOR APPROVAL

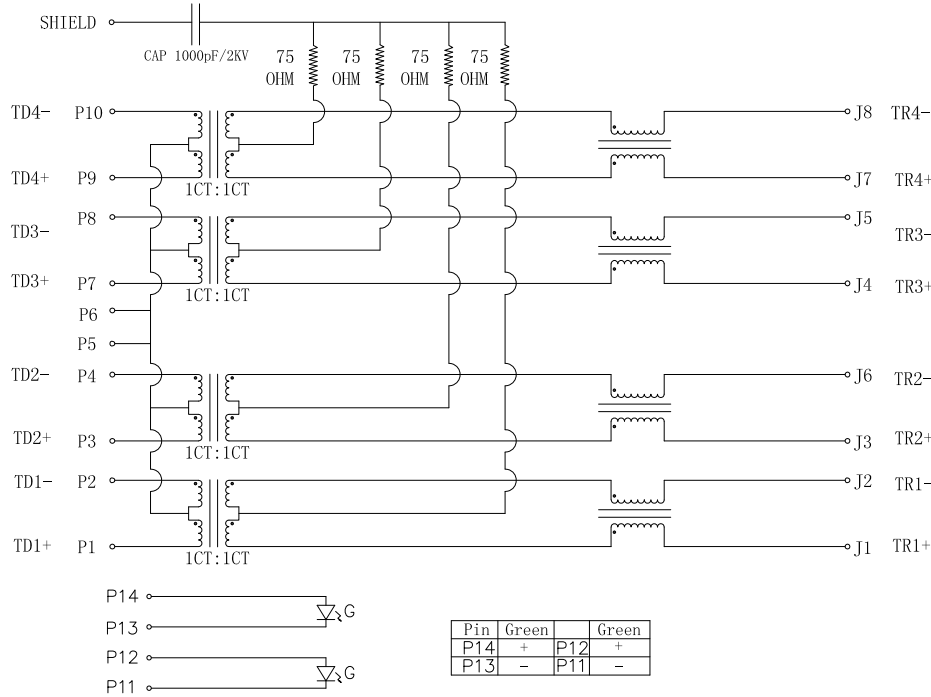
Customer Part No.:  
 CZT Part No.: JDGU13050607  
 Part Name: RJ45 ICM(1000Base-T 1Port)

Rev.: B



### 6. Circuit Schematic and Electrical Specifications:

#### 6-1. Circuit Schematic:




#### 6-2. Electrical Specifications:

	For 60 seconds	2250 Vdc (min)
<b>TURNS RATIO</b>	1.00 ± 2%	
<b>Open Circuit Inductance(OCL)or OCL (alternate)</b>	With 8mA bias at 25°C	400uH(min)
	With 8mA bias at 0°C to 70°C	350uH(min)
<b>Insertion Loss</b>	100 KHz through 999 KHz	1 dB(max)
	1.0 MHz through 60 MHz	0.6 dB(max)
	60.1 MHz through 80 MHz	0.8 dB(max)
	80.1 MHz through 100MHz	1.0 dB(max)
	100.1 MHz through 125 MHz	2.4 dB(max)
<b>Return Loss</b>	1.0 MHz through 40MHz 40.1 MHz through 100MHz	18 dB(min)
	When reference impedance is 85Ω 100Ω and 115Ω Note that return loss values might vary with MDI trace lengths. The LAN magnetics might need to be measured in the platform where it is used	12 to 20*LOG(Frequency in MHz/80)dB (min)
<b>Crosstalk Isolation Discrete Modules</b>	1.0 MHz through 29.9 MHz	-50.3+(8.8*(freq in MHz/30))dB(max)
	30 MHz through 250 MHz	-26.(16.8*(LOG(freq in MHz/100)))dB(max)
	250.1 MHz through 375 MHz	-26 dB(max)
<b>Crosstalk Isolation Integrated Modules</b>	1.0 MHz through 10 MHz	-50.8+(8.8*(freq in MHz/10))dB(max)
	10.1 MHz through 100 MHz	-26.(16.8*(LOG(freq in MHz/100)))dB(max)
	100.1 MHz through 375 MHz	-26 dB(max)
<b>Diff to CMR</b>	10.1 MHz through 29.9 MHz	-40.2+(5.3*(freq in MHz/30))dB(max)
	30 MHz through 500 MHz	-22.(14*(LOG(freq in MHz/250)))dB(max)
<b>CM to CMR</b>	1.0 MHz through 270 MHz	-57+(38*(freq in MHz/270))dB(max)
	270.1 MHz through 300 MHz	-17-2*(300*(LOG(freq in MHz/30)))dB(max)
	300.1 MHz through 500 MHz	-17 dB(max)



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### 8. Reliability Test Items:

Test Item	Test Condition	Criteria
<b>1.1. Solderability</b>	Refer to EIA/JESD22-B102D 1).Precondition: 150±5°C,16±0.5Hours 2).Flux Type:ROL1 3).Immersion Flux Time: 5~10 Seconds 4).Solder Temperature:245±5°C 5).Solder Immersion Time:5±0.5 Seconds 6).Solder Immersion/Emersion	Solder coverage area of terminal exceed 95%
<b>2.1. Resistance To Soldering Heat-Dip and Look(Through Hole)</b>	Refer to EIA/JEDEC B106-B 1).Temperature:260±5°C 2).Duration Time:10+2/-0 Seconds	1).No mechanical problem found. 2) No electrical failure found per CZT's specification .
<b>2.2. Thermal Shock</b>	Refer to IEC68-2-14 1.Low Temperature:-40±3°C 2.High Temperature:125±3°C 3.Dwell Time:30 Minutes 4.Transition Time: Less Than 5Minutes 5.Number of Cycles: 10	1).No mechanical problem found. 2) No electrical failure found per CZT's specification .
<b>2.3. High Temperature</b>	Refer to IEC68-2-2 85±3°C ,240Hours	1).No mechanical problem found. 2) No electrical failure found per CZT's specification .
<b>2.4. Low Temperature</b>	Refer to IEC68-2-1 -40±3°C ,96Hours	1).No mechanical problem found. 2) No electrical failure found per CZT's specification .
<b>2.5. Temperature Humidity Cycle</b>	Refer to IEC68-2-38 Temp Humidity soak time 25~65°C 93+/-3%RH 1.5 hr 65°C 93+/-3%RH 4 hr 65~25°C 80~96%RH 2.5 hr 25~65°C 93+/-3%RH 1.5hr 65°C 93+/-3%RH 4hr 65~25°C 80~96%RH 2.5hr 25°C 93+/-3%RH 1.5hr 25°C~ -10°C NA 0.5hr -10°C~25°C NA 3hr 25°C 93+/-3%RH 1.5hr Number of cycles: 10	1).No mechanical problem found. 2) No electrical failure found per CZT's specification .
<b>3.1. Salt Atmosphere</b>	Refer to IEC68-2-11 1.Temperature:35°C 2.PH Value:6.5~7.2 3.Slat Soutlion:5% 4.Duration:8Hours	1).No mechanical problem found(Golden Finer and Shelding). 2) No electrical failure found per CZT's specification .
<b>4.1. Vibration</b>	Refer to IEC 68 - 2 - 6 1. Amplitude: 0.75mm (or 10G) 2. Frequency: 5 ~ 500 ~ 5 Hz 3. Number of sweep cycles per axis: 10 4. Direction: X , Y , Z 5. Duration: 2 Hours each direction	1).No mechanical problem found. 2) No electrical failure found per CZT's specification .
<b>4.2. Mechanical Shock</b>	Refer to MIL-STD-202F Meyhod 213B Pulse shape: half-sine Peak acceleration: 75G Duration: 6 ms Orientation: (x, -x, y, -y, z, -z) 3 shocks each orientation.Total are 18 shocks	1).No mechanical problem found. 2) No electrical failure found per CZT's specification .
<b>5.1. Goriiala Test--Ring Wiggle Method</b>	CZT inner specification 1) RJ45 Plug Height Type: Over: 0.232 inch (5.8928mm) Normal:0.237 inch (6.0198mm) under: 0.247 inch (6.2738mm) Cisco under: 0.252 inch (6.4008mm) 2) Applied road: 8 pound weight 3) Ring test circles: 3 complete revolution 4) Motor Speed rate:4rpm	1).No mechanical problem found. 2).No electrical failure found per CZT's specification. 3).without no Link found
<b>6.1. Durability--Plug Insert and Withdrawal Jack 750 Cycle</b>	Refer to IEC 512-9A 1).Insert And Withdrawal Speed: 10mm/Second 2).Number of Operation: 750Cycles	1).No mechanical problem found. 2) No electrical failure found per CZT's specification. 3) Contact resistance not exceed 40 mOHM
<b>7.1. Contact Resistance</b>	Refer to IEC512-2-2a Mate connectors: apply a minimum voltage of 20 mV and a current of 100mA over jack contact	Contact resistance not exceed 20 mOHM

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## TEST DATA

**CUSTOMER PART NO:** **TEMP(°C): 20~30**  
**CZT PART NO: JDGU13050607** **HUM(%): 40RH~75RH**  
**Q'TY: 10PCS**

TEST ITEM	L(uH)								HI-POT
	1-2	3-4	7-8	9-10					PRI To SEC
TEST CONDITION	100KHz,0.1Vrms,8mA DC Bias								2250Vdc
SPECIFICATION	350 MIN								
TEST INSTRUMENT	TH2819XB								TH9201S
1	480	561	570	526					OK
2	522	545	516	536					OK
3	526	526	534	570					OK
4	471	544	579	480					OK
5	583	492	577	515					OK
6	542	492	509	587					OK
7	503	533	534	555					OK
8	516	484	545	547					OK
9	541	528	557	559					OK
10	517	505	558	551					OK
REMARK									

# CZT

## TEST DATA

**CUSTOMER PART NO:**

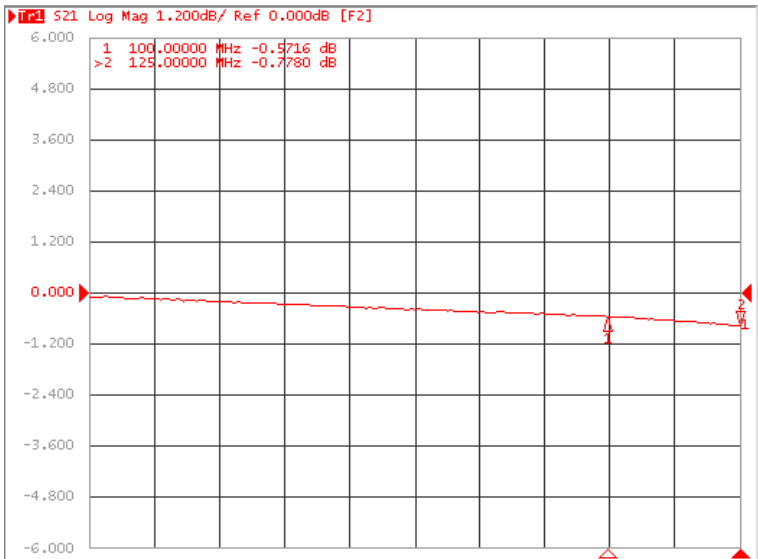
**TEMP(°C): 20~30**

**CZT PART NO:JDGU13050607**

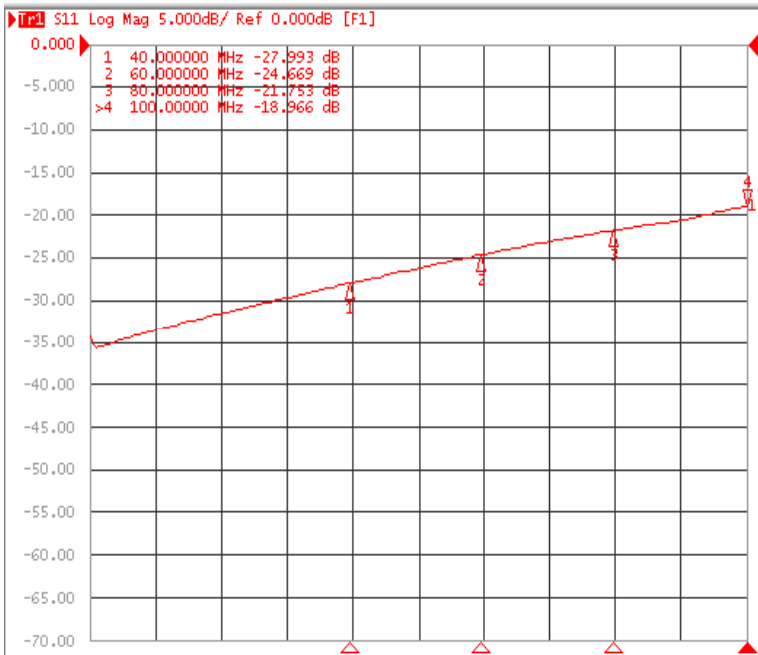
**HUM(%): 40RH~75RH**

**Q'TY: 10PCS**

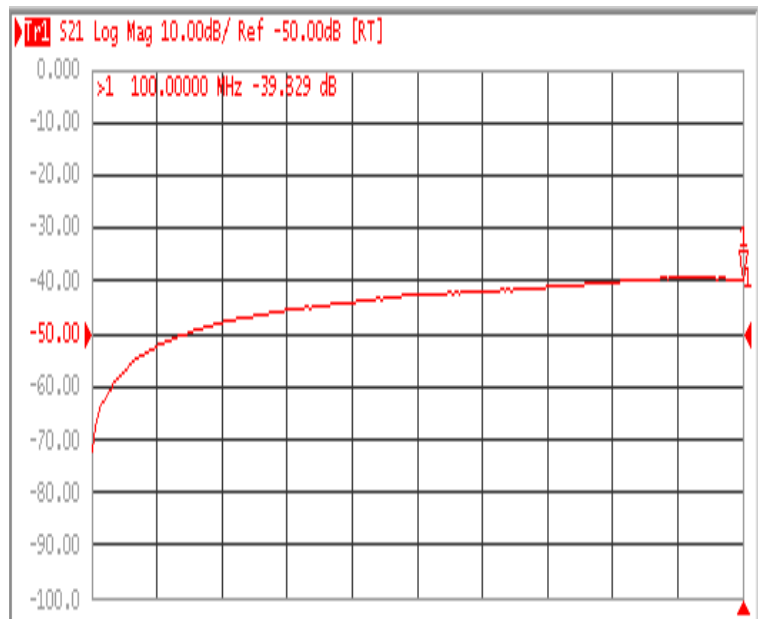
TEST ITEM	A (mm)	B (mm)	C (mm)	D (mm)						
TEST CONDITION	/	/	/	/						
SPECIFICATION	15.75±0.25	13.80±0.25	21.50±0.25	2.75±0.25						
TEST INSTRUMENT	/									
1	15.78	13.85	21.54	2.73						
2	15.79	13.84	21.55	2.75						
3	15.79	13.81	21.51	2.75						
4	15.78	13.83	21.56	2.74						
5	15.79	13.82	21.55	2.75						
6	15.79	13.79	21.51	2.74						
7	15.79	13.80	21.58	2.75						
8	15.79	13.81	21.56	2.73						
9	15.79	13.78	21.57	2.75						
10	15.78	13.81	21.57	2.77						
REMARK										



CUSTOMER:  
 PART NO:JDGU13050607  
 ST ITEM: INSERTION LOSS  
 ISSUE NO: 15A-0023  
 ISSUE DATE : NOV.26,2015



CUSTOMER:  
 PART NO:JDGU13050607  
 TEST ITEM: RETURN LOSS  
 ISSUE NO: 15A-0023  
 ISSUE DATE : NOV.26,2015



CUSTOMER:  
 PART NO:JDGU13050607  
 TEST ITEM: CROSS TALK  
 ISSUE NO: 15A-0023  
 ISSUE DATE : NOV.26,2015