

# CUC-IA3G-J1ST-AB/R4T - Filtered RJ45 PCB connectors



1664105

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Filtered RJ45 PCB connectors, 1x1 single-port, connection direction of the connector to the PCB: 90 °, Tab down, Shielded, number of positions: 8, 1 Gbps, THT, THD, Wave, IP20

## Your advantages

- Simplified Ethernet design process thanks to integrated filtering
- Reduced PCB complexity and reduced EMC risks
- High mechanical stability when connecting the female connector to the PCB using through-hole technology (THT)
- Tray packing
- Space-saving due to the compact design
- Outstanding EMI performance
- Enables space-saving PCB design while simultaneously reducing the BOM thanks to integrated filters and transformers
- Ideal for demanding industrial applications due to the high shock and vibration resistance as well as the extended temperature range

## Commercial data

|                                      |                                                                     |
|--------------------------------------|---------------------------------------------------------------------|
| Item number                          | 1664105                                                             |
| Packing unit                         | 50 pc                                                               |
| Minimum order quantity               | 150 pc                                                              |
| Sales key                            | ABNAFA                                                              |
| Product key                          | ABNAFA                                                              |
| GTIN                                 | 4067923204874                                                       |
| Weight per piece (including packing) | 9,16 g                                                              |
| Weight per piece (excluding packing) | 6,3 g                                                               |
| Customs tariff number                | 85366930                                                            |
| Country of origin                    | Information on the country of origin is provided with the delivery. |

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## Technical data

### Product properties

|                     |                           |
|---------------------|---------------------------|
| Slots               | 1x1 single-port           |
| Orientation to PCB  | 90.00 °                   |
| Type                | THD                       |
| Number of positions | 8 (8P8C)                  |
| Type of locking     | Snap-in locking, Tab down |
| Shielding           | Shielded                  |
| Processing notes    | Wave                      |
| Transmission speed  | 1 Gbps (1000BASE-T)       |

### Electrical properties

|                               |                         |
|-------------------------------|-------------------------|
| Pollution degree              | 2 (IEC 60664-1)         |
| Overvoltage category          | I (IEC 60664-1)         |
| Rated surge voltage           | 1.5 kV (IEC 60664-1)    |
| Rated current                 | 0.5 A                   |
| Insulation resistance         | > 500 MΩ (IEC 60603-7)  |
| Test voltage (Contact/shield) | 1.5 kV DC (IEC 60603-7) |

### Dimensions

|                  |          |
|------------------|----------|
| Length           | 21.35 mm |
| Width            | 15.9 mm  |
| Height           | 17.13 mm |
| Installed height | 13.63 mm |
| Data pin length  | 3.50 mm  |

### Material specifications

|                                                       |                                |
|-------------------------------------------------------|--------------------------------|
| Material Contact carrier                              | LCP                            |
| Flame resistance                                      | UL 94 V0                       |
| Halogen-free                                          | yes                            |
| Material Housing                                      | Copper alloy                   |
| Material Housing coating                              | Ni (0.762 µm min / 30 µ" min)  |
| Material Housing pin coating (top layer/selective)    | Sn (3,048 µm min / 120 µ" min) |
| Material Contact                                      | Phosphor bronze                |
| Material Solder contact coating (intermediate layer)  | Ni (1,016 µm min / 40 µ" min)  |
| Material Solder contact coating (top layer/selective) | Sn (3,048 µm min / 120 µ" min) |
| Material Plug contact coating (top layer/selective)   | Au (0.762 µm/30 µ")            |
| Material Plug contact coating (intermediate layer)    | Ni (1,270 µm min / 50 µ" min)  |

### Mechanical properties

#### Mechanical data

|                             |                     |
|-----------------------------|---------------------|
| Insertion/withdrawal cycles | > 750 (IEC 60603-7) |
|-----------------------------|---------------------|

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|                  |                      |
|------------------|----------------------|
| Insertion force  | < 20 N (IEC 60603-7) |
| Withdrawal force | < 20 N (IEC 60603-7) |

## Environmental and real-life conditions

### Ambient conditions

|                                         |                    |
|-----------------------------------------|--------------------|
| Ambient temperature (operation)         | -40 °C ... 85 °C   |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C   |
| Degree of protection (plugged in)       | IP20 (IEC 60603-7) |

### Test specification for vibration - sine (IEC 60068-2-6)

|              |                               |
|--------------|-------------------------------|
| Acceleration | 100 m/s <sup>2</sup>          |
| Frequency    | 10 ... 500 Hz                 |
| Amplitude    | 0.35 mm                       |
| Cycles       | 10 cycles per axis, 20 sweeps |
| Sweep speed  | 1 octave/min                  |

### Test specification Shock (IEC 60068-2-27)

|              |                      |
|--------------|----------------------|
| Pulse shape  | Half-sine            |
| Acceleration | 300 m/s <sup>2</sup> |

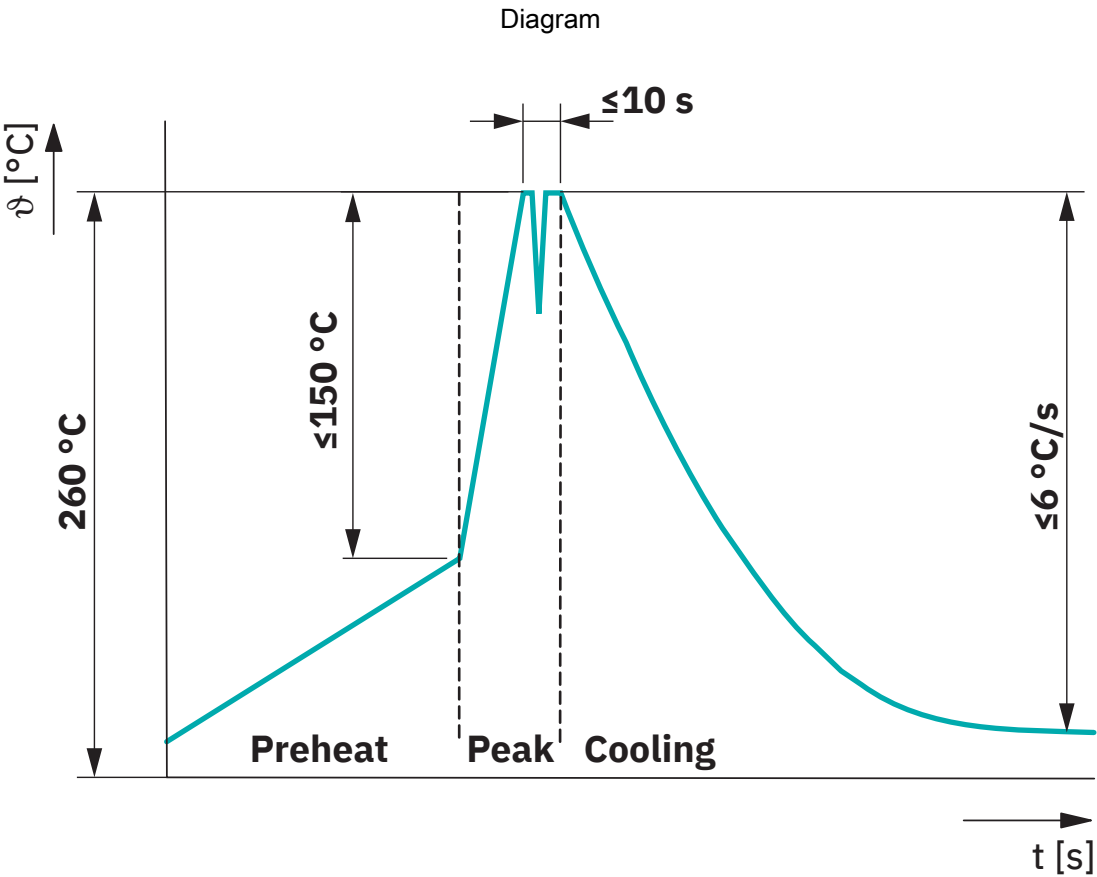
## Mounting

### Processing notes

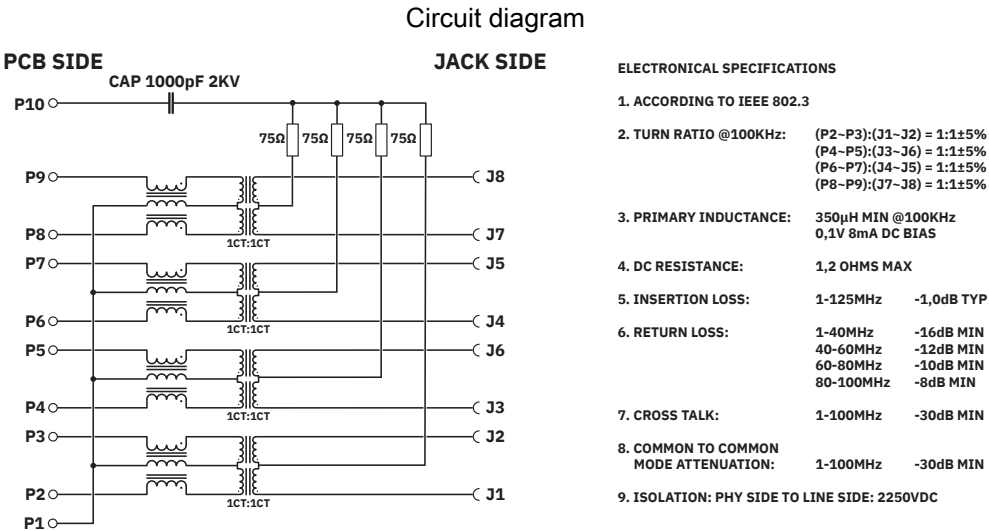
|               |     |
|---------------|-----|
| Mounting type | THT |
|---------------|-----|

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Drawings



Classification wave soldering profile



Circuit diagram

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## Approvals

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**cULus Recognized**

Approval ID: E140403-20250401

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27460201 |
| ECLASS-15.0 | 27460201 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC002637 |
|-----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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## Environmental product compliance

### EU RoHS

|                                         |                    |
|-----------------------------------------|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|-----------------------------------------|--------------------|

### China RoHS

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|                                        | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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