

1664035

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Filtered RJ45 PCB connectors, 1x1 single-port, connection direction of the connector to the PCB: 90 °, Tab up, Shielded, shield springs, number of positions: 8, 1 Gbps, THT, Wave, type of packaging: Tray

### Your advantages

- · Simplified Ethernet design process thanks to integrated filtering
- · Reduced PCB complexity and reduced EMC risks
- · 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	1664035
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AB12
Product key	ABNAFA
GTIN	4067923204522
Weight per piece (including packing)	8.84 g
Weight per piece (excluding packing)	6.3 g
Customs tariff number	85366930
Country of origin	CN



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### Technical data

### Product properties

Product type	Data connector (device side)
Slots	1x1 single-port
Orientation to PCB	90.00 °
Туре	THD
Number of positions	8 (8P8C)
Type of locking	Snap-in locking Tab up
Shielding	Shielded, shield springs
application range	Wave
Type of packaging	Tray
Transmission speed	1 Gbps (1000BASE-T)

### Electrical properties

Rated surge voltage	1.5 kV DC (IEC 60664-1)
Rated current	0.5 A
Test voltage	1.5 kV DC IEC 60603-7 (Contact - shield)
Insulation resistance	> 500 MΩ (IEC 60603-7)
Transmission speed	1 Gbps
Transmission speed	1 Gbps

### Connection data

### Connection technology

Connection method	Female

### Signaling

Status display present	no
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#### **Dimensions**

Width	15.75 mm
Height	17.4 mm
Length	21.5 mm
Installed height	13.80 mm
Orientation to PCB	90.00°
Data pin length	3.20 mm

### Material specifications

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)
Material Solder contact coating (top layer/selective)	Sn (3,048 μm min / 120 μ" min)
Material Solder contact coating (intermediate layer)	Ni (1,016 μm min / 40 μ" min)
Material Housing	Ni (0.762 μm min / 30 μ" min)



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Type of packaging

	Phosphor bronze
Material Contact	1 Hoophor Bronze
Material Housing pin coating (top layer/selective)	Sn (3,048 μm min / 120 μ" min)
Material Contact carrier	LCP (Housing (female/insert))
able/line	
Shielding	Shielded, shield springs
Halogen-free	yes
Flame resistance	UL 94 V0
echanical properties	
Mechanical data	
Insertion/withdrawal cycles	> 750 (IEC 60603-7)
Insertion force	< 20 N (IEC 60603-7)
Withdrawal force nvironmental and real-life conditions Test specification	< 20 N (IEC 60603-7)
nvironmental and real-life conditions  Test specification	
nvironmental and real-life conditions	< 20 N (IEC 60603-7)  IEC 60603-7
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nvironmental and real-life conditions  Test specification  Specification	
Test specification Specification Ambient conditions	IEC 60603-7
Test specification  Specification  Ambient conditions  Degree of protection (when plugged in)	IEC 60603-7  IP20 (IEC 60603-7)  IP20 (IEC 60603-7)  -40 °C 85 °C
Test specification Specification Ambient conditions Degree of protection (when plugged in) Degree of protection	IEC 60603-7  IP20 (IEC 60603-7)  IP20 (IEC 60603-7)
Test specification Specification Ambient conditions Degree of protection (when plugged in) Degree of protection Ambient temperature (operation)	IEC 60603-7  IP20 (IEC 60603-7)  IP20 (IEC 60603-7)  -40 °C 85 °C
Test specification Specification Ambient conditions Degree of protection (when plugged in) Degree of protection Ambient temperature (operation) Ambient temperature (storage/transport)	IEC 60603-7  IP20 (IEC 60603-7)  IP20 (IEC 60603-7)  -40 °C 85 °C
Test specification Specification Ambient conditions Degree of protection (when plugged in) Degree of protection Ambient temperature (operation) Ambient temperature (storage/transport)  tandards and regulations	IEC 60603-7  IP20 (IEC 60603-7)  IP20 (IEC 60603-7)  -40 °C 85 °C  -40 °C 85 °C
Test specification Specification Ambient conditions Degree of protection (when plugged in) Degree of protection Ambient temperature (operation) Ambient temperature (storage/transport)  tandards and regulations Flame resistance	IEC 60603-7  IP20 (IEC 60603-7)  IP20 (IEC 60603-7)  -40 °C 85 °C  -40 °C 85 °C
Test specification Specification Ambient conditions Degree of protection (when plugged in) Degree of protection Ambient temperature (operation) Ambient temperature (storage/transport)  tandards and regulations Flame resistance ounting	IEC 60603-7  IP20 (IEC 60603-7)  IP20 (IEC 60603-7)  -40 °C 85 °C  -40 °C 85 °C

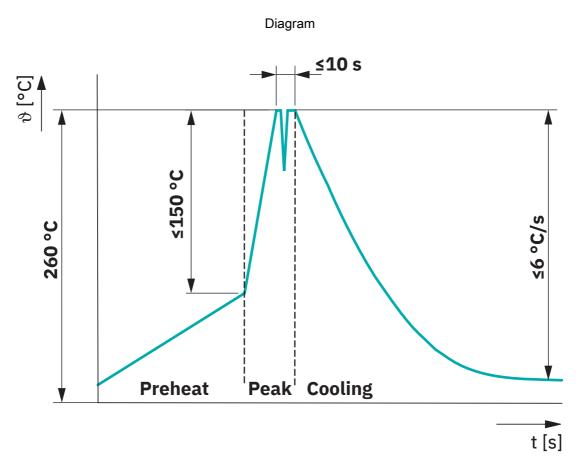
Tray



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### **Drawings**



Classification wave soldering profile

#### Circuit diagram **PCB SIDE JACK SIDE ELECTRONICAL SPECIFICATIONS CAP 1000pF 2KV** 1. ACCORDING TO IEEE 802.3 SHIELD O (P2~P3):(J1~J2) = 1:1±5% (P4~P5):(J3~J6) = 1:1±5% (P6~P7):(J4~J5) = 1:1±5% (P8~P9):(J7~J8) = 1:1±5% 2. TURN RATIO @100KHz: P1o 350μH MIN @100KHz 0,1V 8mA DC BIAS 3. PRIMARY INDUCTANCE: **P3** O 4. DC RESISTANCE: 1,2 OHMS MAX 1-100MHz 5. INSERTION LOSS: 1-100MHz -1,0dB MAX 100-125MHz -1,2dB MAX **P5** 0 1-40MHz 40-60MHz 60-80MHz 80-100MHz 6. RETURN LOSS: -16dB MIN -12dB MIN -10dB MIN -8dB MIN **P7**0 -( **J**3 7. CROSS TALK: 1-100MHz -( J2 8. COMMON TO COMMON MODE ATTENUATION: 1-100MHz -30dB MIN 9. ISOLATION: PHY SIDE TO LINE SIDE: 2250VDC



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### Classifications

#### **ECLASS**

	ECLASS-13.0	27460201
	ECLASS-15.0	27460201
ET	ТІМ	
	ETIM 9.0	EC002637
UN	ISPSC	

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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