

1664051

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Filtered RJ45 PCB connectors, 1x1 single-port, connection direction of the connector to the PCB: 180 °, Shielded, 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	1664051
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AB12
Product key	ABNAFA
GTIN	4067923204331
Weight per piece (including packing)	8.845 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	180.00 °
Туре	THD
Number of positions	8 (8P8C)
Type of locking	Snap-in locking
Shielding	Shielded
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	16 mm
Height	19.8 mm
Length	17 mm
Installed height	16.80 mm
Orientation to PCB	180.00 °
Data pin length	3.00 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

Shielding Halogen-free Flame resistance UL 94 V0  Mechanical properties  Mechanical data Insertion/withdrawal cycles Insertion force Vithdrawal force Vithdrawal force  Environmental and real-life conditions  Test specification Specification Specification IEC 60603-7  Ambient conditions  Degree of protection (when plugged in) Degree of protection IP20 (IEC 60603-7)  Ambient temperature (operation) Ambient temperature (storage/transport) IP20 (IEC 60603-7)  Ambient temperature (storage/transport) IP20 (IEC 60603-7)  Ambient temperature (storage/transport) Jec 2 85 °C  Standards and regulations  Flame resistance UL 94 V0	Material Housing pin coating (top layer/selective)	
Cable/line		
Cable/line  Shielding Shielding Shielded Halogen-free Yes Flame resistance UL 94 V0  Mechanical properties  Mechanical data Insertion/withdrawal cycles Insertion force Vithdrawal force Vithdrawal force Vithdrawal force  Environmental and real-life conditions  Test specification Specification Specification IEC 60603-7  Ambient conditions  Degree of protection (when plugged in) Degree of protection IP20 (IEC 60603-7)  Ambient temperature (operation) Ambient temperature (operation) Ambient temperature (storage/transport)  Flame resistance UL 94 V0  Mounting Mounting type THT  Processing notes	N ( ' 10 ) ( )	Sn (3,048 μm min / 120 μ" min)
Shielding Shielded Halogen-free yes Flame resistance UL 94 V0  Mechanical properties  Mechanical data Insertion/withdrawal cycles > 750 (IEC 60603-7) Insertion force < 20 N (IEC 60603-7) Withdrawal force < 20 N (IEC 60603-7)  Environmental and real-life conditions  Test specification Specification IEC 60603-7  Ambient conditions  Degree of protection (when plugged in) IP20 (IEC 60603-7)  Ambient temperature (operation) 40 °C 85 °C  Ambient temperature (storage/transport) 40 °C 85 °C  Standards and regulations  Flame resistance UL 94 V0  Mounting Mounting type THT	Material Contact carrier	LCP (Housing (female/insert))
Halogen-free yes Flame resistance UL 94 V0  Mechanical properties  Mechanical data  Insertion/withdrawal cycles > 750 (IEC 60603-7) Insertion force < 20 N (IEC 60603-7) Withdrawal force < 20 N (IEC 60603-7)  Environmental and real-life conditions  Test specification Specification IEC 60603-7  Ambient conditions  Degree of protection (when plugged in) Degree of protection (when plugged in) Ambient temperature (operation) Ambient temperature (storage/transport)  Flame resistance  UL 94 V0  Mounting Mounting type THT	ole/line	
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Flame resistance  Mechanical properties  Mechanical data  Insertion/withdrawal cycles > 750 (IEC 60603-7) Insertion force < 20 N (IEC 60603-7) Withdrawal force < 20 N (IEC 60603-7)  Environmental and real-life conditions  Test specification Specification IEC 60603-7  Ambient conditions  Degree of protection (when plugged in) IP20 (IEC 60603-7) Degree of protection IP20 (IEC 60603-7) Ambient temperature (operation) -40 °C 85 °C Ambient temperature (storage/transport) -40 °C 85 °C  Standards and regulations  Flame resistance UL 94 V0  Mounting Mounting type THT		yes
Mechanical data Insertion/withdrawal cycles > 750 (IEC 60603-7) Insertion force < 20 N (IEC 60603-7) Withdrawal force < 20 N (IEC 60603-7)  Environmental and real-life conditions  Test specification Specification IEC 60603-7  Ambient conditions  Degree of protection (when plugged in) IP20 (IEC 60603-7)  Degree of protection IP20 (IEC 60603-7)  Ambient temperature (operation) Ambient temperature (operation) Ambient temperature (storage/transport)  Standards and regulations  Flame resistance UL 94 V0  Mounting Mounting type THT  Processing notes		UL 94 V0
Insertion/withdrawal cycles  Insertion force  < 20 N (IEC 60603-7)  Withdrawal force  < 20 N (IEC 60603-7)  Withdrawal force  < 20 N (IEC 60603-7)  Environmental and real-life conditions  Test specification  Specification  IEC 60603-7  Ambient conditions  Degree of protection (when plugged in)  Degree of protection  IP20 (IEC 60603-7)  Ambient temperature (operation)  And °C 85 °C  Ambient temperature (storage/transport)  And °C 85 °C  Standards and regulations  Flame resistance  UL 94 V0  Mounting  Mounting type  THT  Processing notes	chanical properties	
Insertion force <a href="color: red;">&lt; 20 N (IEC 60603-7)</a> Withdrawal force <a href="color: red;">&lt; 20 N (IEC 60603-7)</a> Environmental and real-life conditions  Test specification Specification IEC 60603-7  Ambient conditions  Degree of protection (when plugged in) IP20 (IEC 60603-7) Degree of protection IP20 (IEC 60603-7) Ambient temperature (operation) Ambient temperature (storage/transport) IP20 (IEC 60603-7)  Ambient temperature (storage/transport) UL 94 °C 85 °C  Standards and regulations Flame resistance UL 94 V0  Mounting Mounting type THT  Processing notes	lechanical data	
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Environmental and real-life conditions  Test specification  Specification  IEC 60603-7  Ambient conditions  Degree of protection (when plugged in)  Degree of protection  IP20 (IEC 60603-7)  Ambient temperature (operation)  Ambient temperature (storage/transport)  Standards and regulations  Flame resistance  UL 94 V0  Mounting  Mounting type  THT  Processing notes	Insertion force	< 20 N (IEC 60603-7)
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Degree of protection IP20 (IEC 60603-7)  Ambient temperature (operation) -40 °C 85 °C  Ambient temperature (storage/transport) -40 °C 85 °C  Standards and regulations  Flame resistance UL 94 V0  Mounting  Mounting type THT  Processing notes	Degree of protection (when plugged in)	
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Standards and regulations  Flame resistance  UL 94 V0  Mounting  Mounting type  THT  Processing notes		
Flame resistance UL 94 V0  Mounting  Mounting type THT  Processing notes	Ambient temperature (operation)	IP20 (IEC 60603-7)
Mounting  Mounting type  THT  Processing notes		IP20 (IEC 60603-7) -40 °C 85 °C
Mounting type THT  Processing notes	Ambient temperature (storage/transport)	IP20 (IEC 60603-7) -40 °C 85 °C
Processing notes	Ambient temperature (storage/transport) ndards and regulations	IP20 (IEC 60603-7) -40 °C 85 °C -40 °C 85 °C
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Classification temperature T <sub>c</sub> 260 °C	Ambient temperature (storage/transport)  ndards and regulations  Flame resistance  unting	IP20 (IEC 60603-7) -40 °C 85 °C -40 °C 85 °C  UL 94 V0
	Ambient temperature (storage/transport)  ndards and regulations  Flame resistance  unting  Mounting type	IP20 (IEC 60603-7) -40 °C 85 °C -40 °C 85 °C  UL 94 V0
Packaging specifications	Ambient temperature (storage/transport)  ndards and regulations  Flame resistance  unting  Mounting type  rocessing notes	IP20 (IEC 60603-7) -40 °C 85 °C -40 °C 85 °C  UL 94 V0  THT

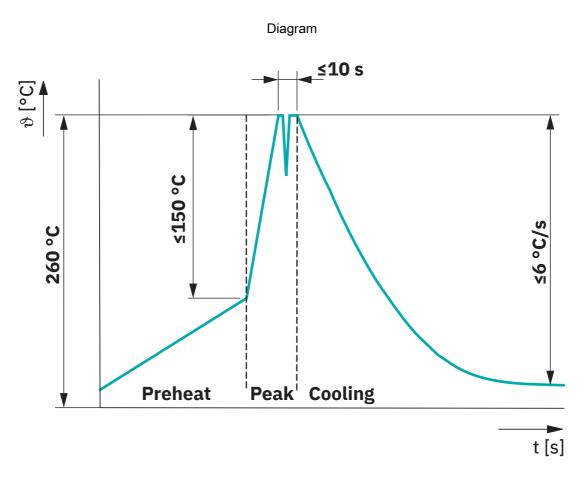
Tray



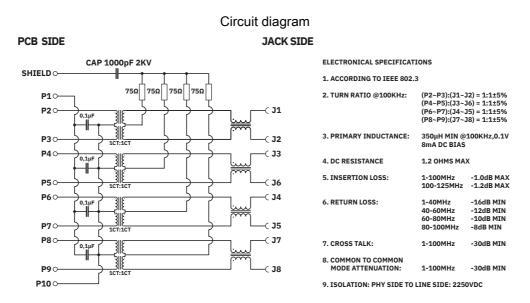
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#### **Drawings**



Classification wave soldering profile



Circuit diagram



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### Classifications

#### **ECLASS**

	ECLASS-13.0	27460201
	ECLASS-15.0	27460201
ETIM		
	ETIM 9.0	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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Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com