



LAN Modules

Series/Type: B78477P1***A*24

The following products presented in this data sheet are being withdrawn.

| Ordering Code | Substitute Product | Date of Withdrawal | Deadline Last Orders | Last Shipments |
|-----------------|--------------------|--------------------|----------------------|----------------|
| B78477P1009A124 | | 2014-04-25 | 2014-07-31 | 2014-10-31 |
| B78477P1008A024 | | 2014-04-25 | 2014-07-31 | 2014-10-31 |

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

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EPCOS AG is a TDK Group Company.

Applications

- Local Area Networks using Ethernet protocol
- Hubs, switches, routers
- ADSL modems
- Industrial automation equipment using Ethernet protocol for communication

Features

- Fully compliant with IEEE 802.3
- With EMI fingers for shielding
- High electrical performance and EMI suppression
- Optimized for all major transceiver ICs
- Industry standard footprint
- RoHS-compatible

Construction

- Housing: Thermoplastic, UL 94 V-0
- Shield: Ni plated on copper alloy
- Contact: Phosphor bronze, 1.27 μm (50 $\mu\text{''}$) Ni underplating, 0.4 μm (15 $\mu\text{''}$) selective gold plating
- Connector dimensions comply with TIA-968 (FCC 68.5) dimension requirements

Marking

- EPCOS, middle block of ordering code, date code

Delivery mode and packing unit

- Blister trays in carton box
- Packing unit: 320 pcs. per carton box (8 trays)

Mechanical characteristics

| | |
|-----------------|------------------------|
| Insertion force | 20 N max. |
| Retention force | 75 N min. |
| Durability | 750 mating cycles min. |

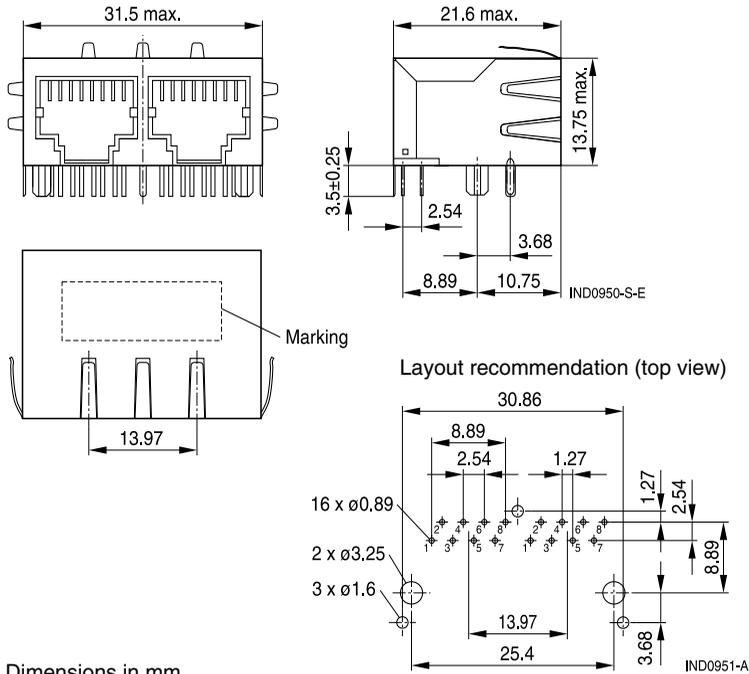
LED specification

| LED colour | Wave length | Forward voltage | |
|------------|-------------|-----------------|---------|
| | | Max. | Typical |
| Green | 565 nm | 2.6 V | 2.2 V |
| Yellow | 585 nm | 2.6 V | 2.1 V |

Characteristics and ordering codes

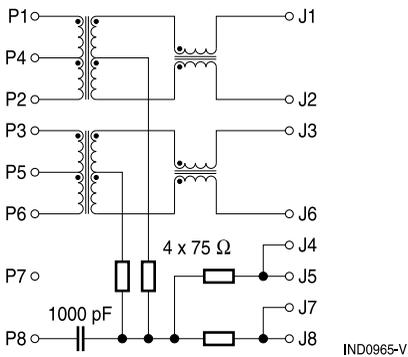
(electrical specifications at +25 °C)

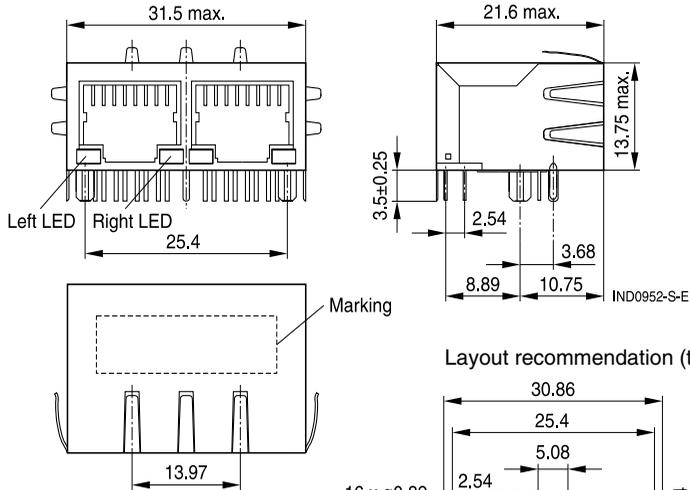
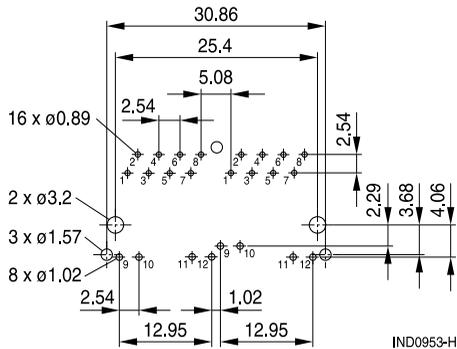
| | | | |
|--|--|-----------------|---|
| Ordering code | B78477P1008A024 | B78477P1009A124 | |
| LED (left - right) | – | Yellow - green | |
| Turns ratio (primary : secondary) | 1CT : 1CT ±3% | | |
| Inductance L | 350 µH min. | | 100 kHz, 100 mV, 8 mA DC bias |
| Voltage test V_{test} (primary : secondary) | 1500 V AC | | 50 Hz, 1 min |
| Insertion loss | –1.0 dB max. | | 1 MHz ... 100 MHz |
| Return loss | –18 dB min. –14 dB min. –12 dB min. –10 dB min. | | 1 MHz ... 40 MHz 60 MHz 80 MHz 100 MHz |
| Crosstalk | –33 dB min. | | 1 MHz ... 100 MHz |
| Common-mode rejection | –30 dB typ. | | 1 MHz ... 100 MHz |
| Operating temperature range | 0 °C ... +70 °C | | |
| Weight | Approx. 11 g | | |

Dimensional drawing for B78477P1008A024


Dimensions in mm

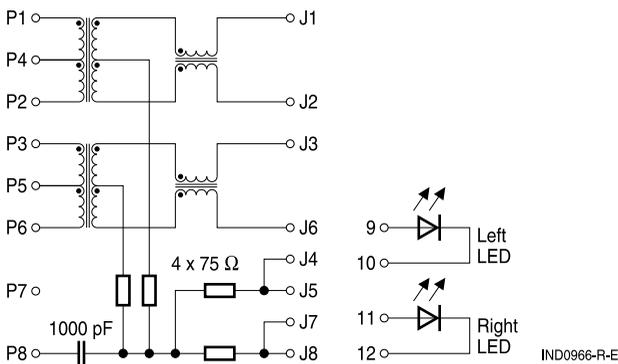
Values without tolerances are nominal values for reference.

Pinning


Dimensional drawing for B78477P1009A124

Layout recommendation (top view)


Dimensions in mm

Values without tolerances are nominal values for reference.

Pinning


Cautions and warnings

- If the components are to be washed varnished it is necessary to check whether the washing varnish agent that is used has a negative effect on the wire insulation, any plastics that are used, or on glued joints. In particular, it is possible for washing varnish agent residues to have a negative effect in the long-term on wire insulation.
- The following points must be observed if the components are potted in customer applications:
 - Many potting materials shrink as they harden. They therefore exert a pressure on the plastic housing or core. This pressure can have a deleterious effect on electrical properties, and in extreme cases can damage the core or plastic housing mechanically.
 - It is necessary to check whether the potting material used attacks or destroys the wire insulation, plastics or glue.
 - The effect of the potting material can change the high-frequency behaviour of the components.
- Ferrites are sensitive to direct impact. This can cause the core material to flake, or lead to breakage of the core.
- Even for customer-specific products, conclusive validation of the component in the circuit can only be carried out by the customer.

Important notes

The following applies to all products named in this publication:

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