

10BASE-T NETWORK COMPONENTS

960054A

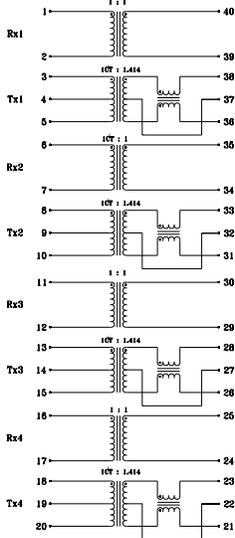
- Designed for use with Level One LXT914/918/944 or Texas Instruments' Quad PHY TNETE 2004 10Base-T transceivers
- Quad, 4-port design offers optimal space, performance and cost efficiency
- Family of designs offered with common footprint and pinout to accommodate customized EMI requirements
- Low profile surface mount packages, rated to 225°C peak IR reflow temperature
- 2000 Vrms isolation

ELECTRICALS AT 25°C

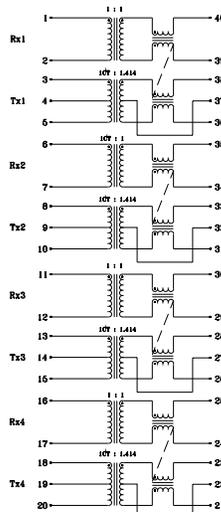
| Part No. | Insertion Loss (dB) Max 1-10MHz | OCL Inductance (μH) Min | Return Loss (dB) Min 1MHz-10MHz | Crosstalk (dB) Min 1MHz-10MHz | CM-CM Rej (dB) Min | | Schematic |
|--------------|---------------------------------|-------------------------|---------------------------------|-------------------------------|--------------------|--------|-----------|
| | | | | | 10-30MHz | 100MHz | |
| S553-2940-08 | -1.0 | 100 | -18 | -40 | -40 | -30 | A |
| S553-2940-09 | -1.0 | 100 | -18 | -40 | -40 | -30 | B |
| S553-5999-54 | -1.0 | 100 | -18 | -40 | N/A | N/A | C |

SCHEMATICS

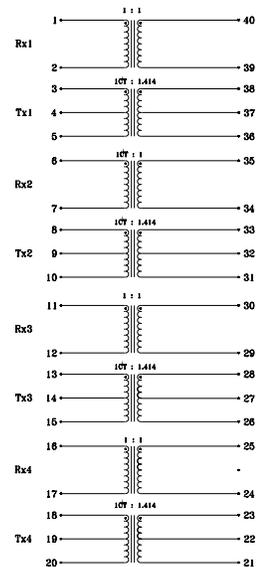
A



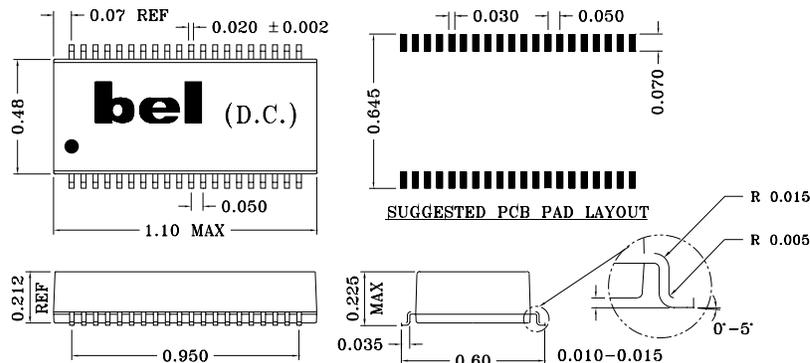
B



C



MECHANICAL

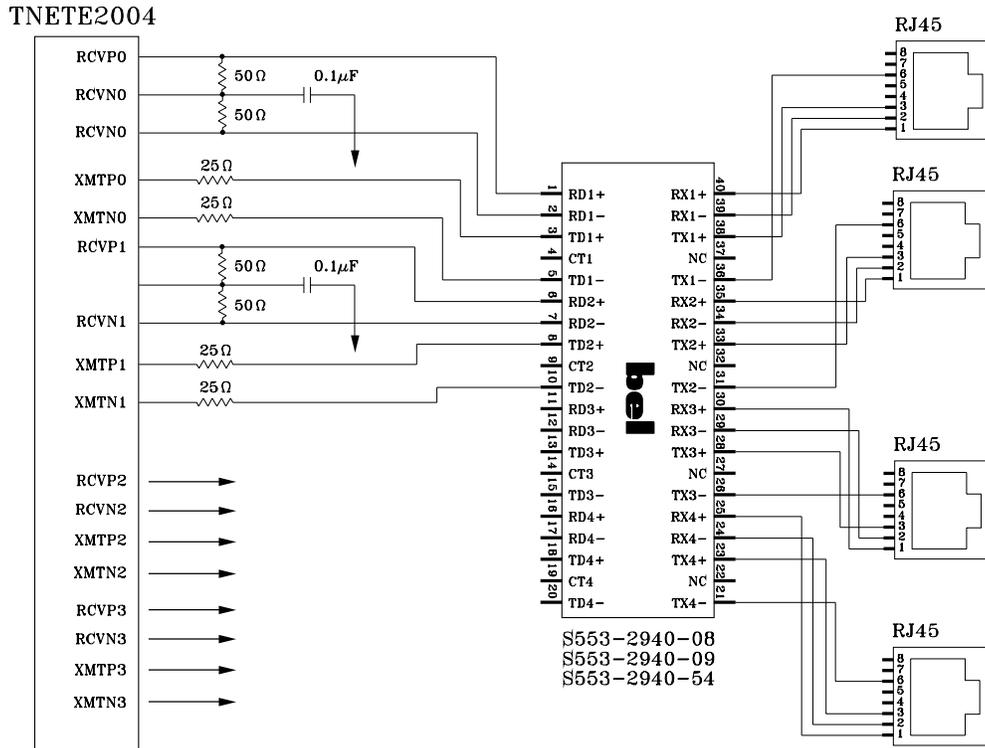


Specifications subject to change without notice.

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APPLICATION CIRCUIT



NOTE: ONLY TWO PORTS ARE CONNECTED. THE OTHER 10Base-T PORTS ARE CONNECTED THE SAME

APPLICATION NOTES

- Bel has developed a variety of quad 4-port part types for use with Level One or Texas Instrument product line of quad, 4-port PHY devices that incorporate digital filtering techniques within the silicon itself. Bel's "filterless magnetics" are optimized for this specific application and create a very cost efficient design solution. Each Bel part type contains 4 channels of transmit and receive transformers to provide for wave shaping, high voltage isolation and EMI noise suppression.
- Bel has designed these parts as a family of parts with common footprint and pinouts to enable the designer to customize the use of common mode choke for optimum system performance.
- In multi-port system applications, good PCB layout and proper grounding techniques are very critical to achieve FCC class A and B equipment approvals. Bel recommendations are available and can be provided by contacting our engineering department or your local sales representative.
- Bel's low profile, surface mount packaging is ideal for high speed pick and place machinery. Parts can be shipped on tape and reel for high speed placement. Construction processes have been implemented for thermal compatibility with high temperature IR reflow assembly processing. Post dipping of leads assist with PC board solderability. Each part is optically inspected to meet rigid coplanarity requirements.

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