

# 10BASE-T NETWORK COMPONENTS

960048B

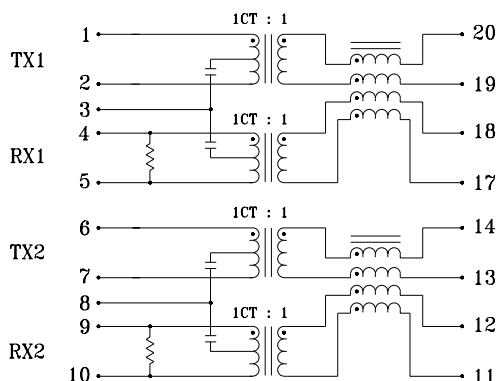
- Designed for use with AMD multi-port 10Base-T transceiver chipsets, such as the eIMR (79C984A), eIMR+ (79C985) and QuiET (79C988)/IMR2 (79C983) where digital filtering has been incorporated into the silicon
- Dual, 2-port (filterless) designs provide cost, space and performance efficiencies
- 2000 Vrms isolation
- Compliant with IEEE 802.3 standards
- Additional differential filtering design available
- Robust surface mount packaging, rated to 225°C peak IR reflow temperature

## ELECTRICALS AT 25°C (each channel)

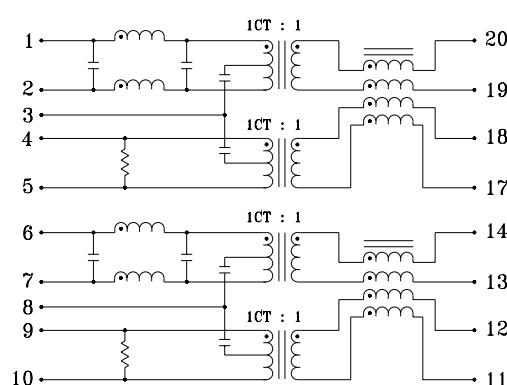
Part No.	OCL ( $\mu$ H) Min	Insertion Loss (dB) Max 1-10MHz	Attenuation (dB) Min			Return Loss (dB) Min 5MHz-10MHz	Crosstalk (dB) Min 1MHz-10MHz	CM-CM Rej (dB) Min		Schematic
			30MHz	50MHz	80MHz			10-30MHz	30-100MHz	
S553-5841-03	100	-1.0	N/A	N/A	N/A	-20	-40	-40	-30	A
S556-5841-09	100	-1.0	-1.0	-8.0	-20	-20	-40	-40	-30	B

## SCHEMATICS

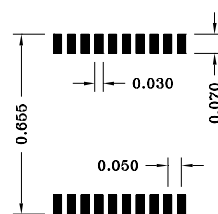
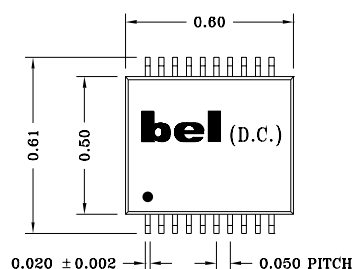
A



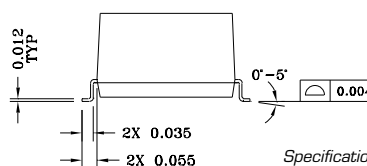
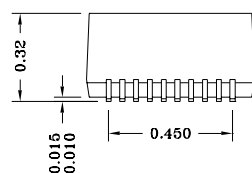
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## MECHANICAL



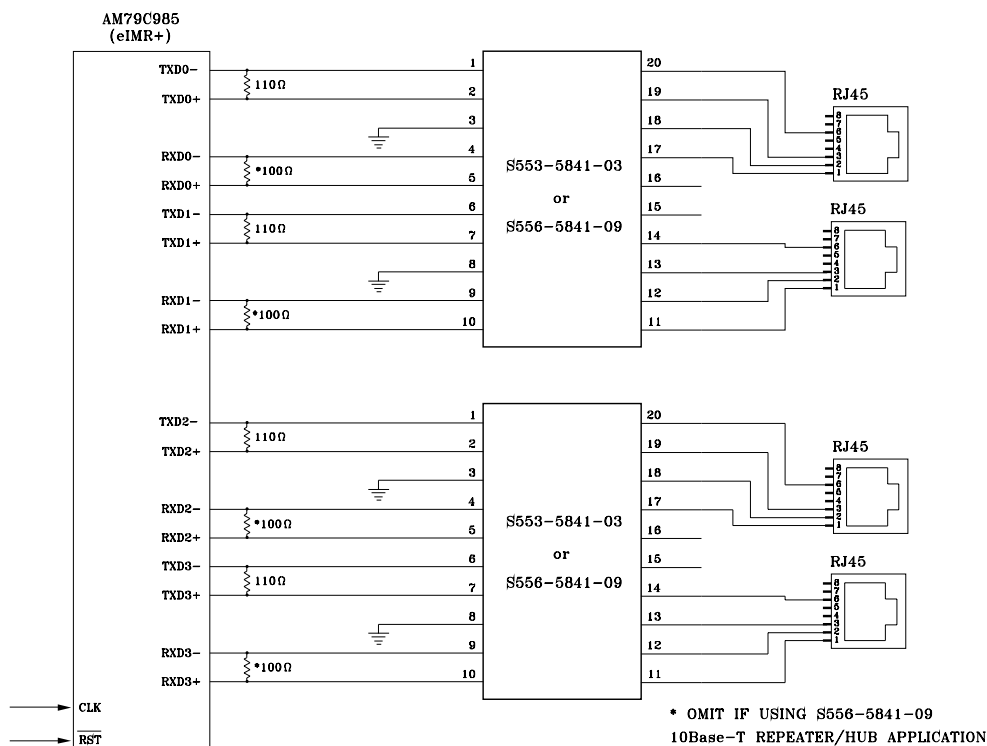
### SUGGESTED PAD LAYOUT



Specifications subject to change without notice.

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## APPLICATION CIRCUIT



## APPLICATION NOTES

- Bel has developed these part types for use with AMD's 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 2 channels of transmit and receive transformers to provide for wave shaping, high voltage isolation and EMI noise suppression. In certain applications, compliance with IEEE 802.3 standards may require additional differential filtering (Bel P/N S556-5841-19).
- Bel has designed these parts as a family of parts with common footprint and pinouts to enable the designer to customize the use of additional differential filtering 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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