

# HIGH SPEED LAN MAGNETICS

- Low profile, Type II surface mount packaging, compliant with IEEE 802.3 standards
- Individually designed to function with multiple PHY transceivers
- 225°C peak IR reflow temperature rating
- 350µH OCL (inductance) with 8mA DC bias applied
- 2000 Vrms isolation

## ELECTRICALS AT 25°C

Part No.	Insertion Loss (dB) Typ		Return Loss (dB) Min		Crosstalk (dB) Min 1MHz-100MHz	Common to Diff Mode Rej (dB) Min		Common to Common Mode Rej (dB) Min		Schematic	Package Style
	1MHz-100MHz	1MHz-30MHz	30MHz-60MHz	60MHz-80MHz		30MHz	100MHz	30MHz	100MHz		
S558-5999-29	-1.2	-16	16-20log(f/30MHz)	-10	-35	-50	-30	-50	-30	A	3
S558-5999-32	-1.2	-16	16-20log(f/30MHz)	-10	-35	-50	-30	-50	-30	B	3
S558-5999-57	-1.2	-16	16-20log(f/30MHz)	-10	-35	-50	-30	-50	-30	C	3
S558-5999-59	-1.0	-16	16-20log(f/30MHz)	-10	-35	-50	-30	-50	-30	D	2
S558-5999-62	-1.0	-16	16-20log(f/30MHz)	-10	-35	-50	-30	-50	-30	E	3
S558-5999-69	-1.2	-16	16-20log(f/30MHz)	-10	-35	-50	-30	-50	-30	F	3
S558-5999-70	-1.2	-16	16-20log(f/30MHz)	-10	-35	-50	-30	-50	-30	G	3
S558-5999-B3	-1.2	-16	16-20log(f/30MHz)	-10	-35	-50	-30	-50	-30	H	1
S558-5999-D6	-1.2	-16	16-20log(f/30MHz)	-10	-35	-50	-30	-50	-30	I	3
S558-5999-D7	-1.2	-16	16-20log(f/30MHz)	-10	-35	-50	-30	-50	-30	J	3

## APPLICATION CHART

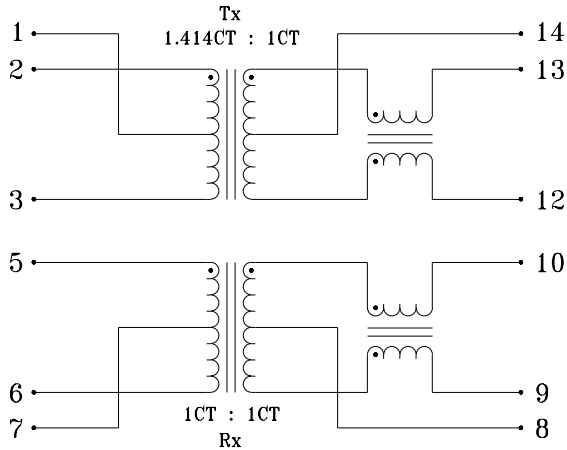
IC Manufacturer	IC Part Number	Bel Part Number
ICS	1890	S558-5999-32
		S558-5999-59
		S558-5999-69
NATIONAL	83840/83223	S558-5999-B3
MICROLINEAR	6692/6694/6698	S558-5999-62
QSI	6611	S558-5999-29
		S558-5999-57
		S558-5999-70
QSI	6612	S558-5999-D6
		S558-5999-D7
SSI/TDK	78Q2120/2121	S558-5999-32
		S558-5999-59
		S558-5999-69

Specifications subject to change without notice.

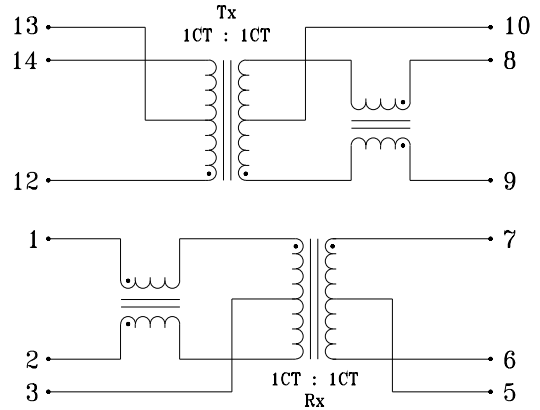
960002D

### SCHEMATICS

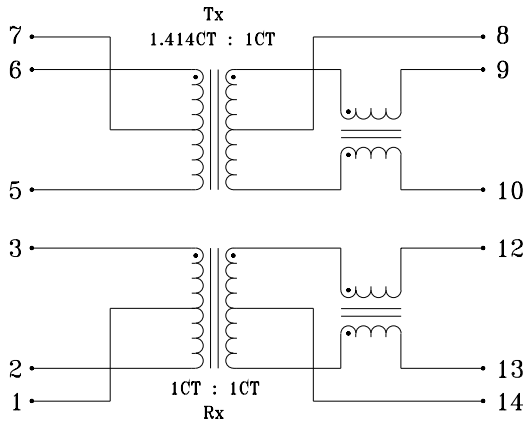
A



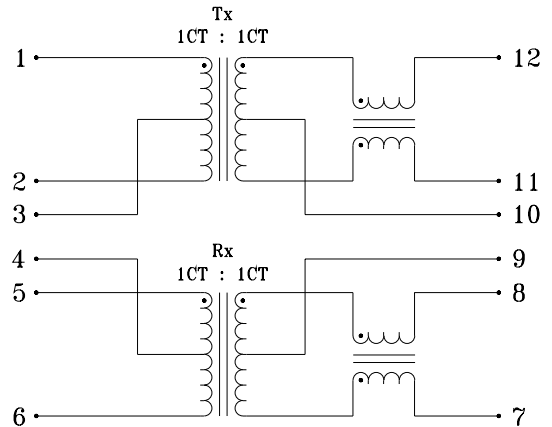
B



C



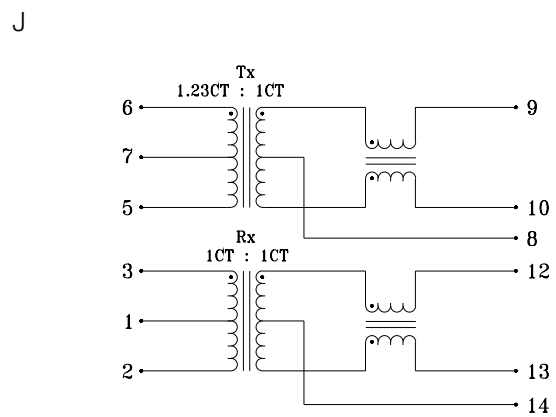
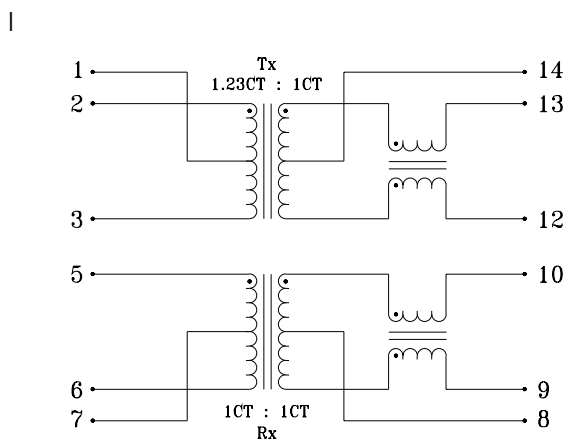
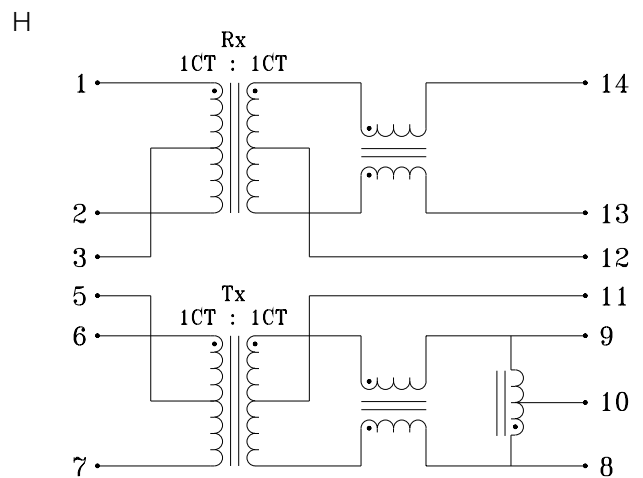
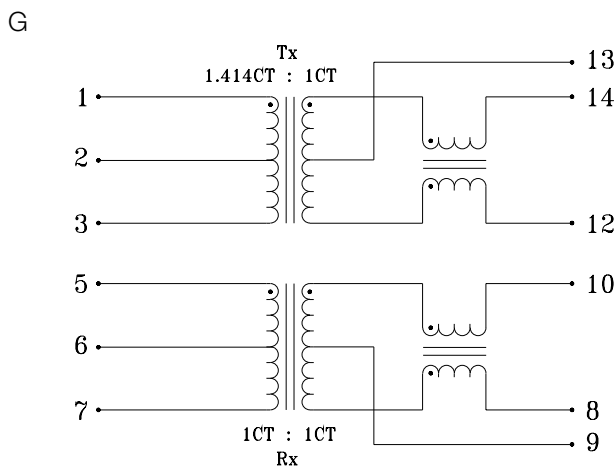
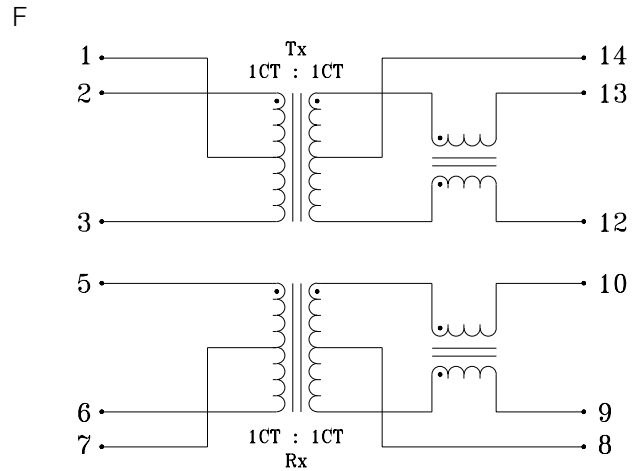
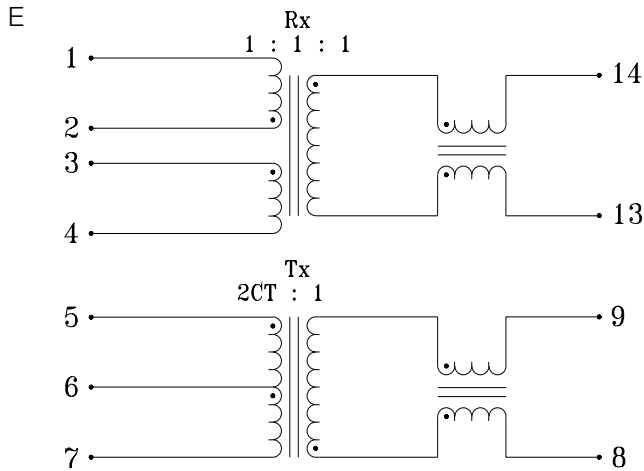
D



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**HIGH SPEED LAN MAGNETICS**

**SCHEMATICS (CONT'D)**



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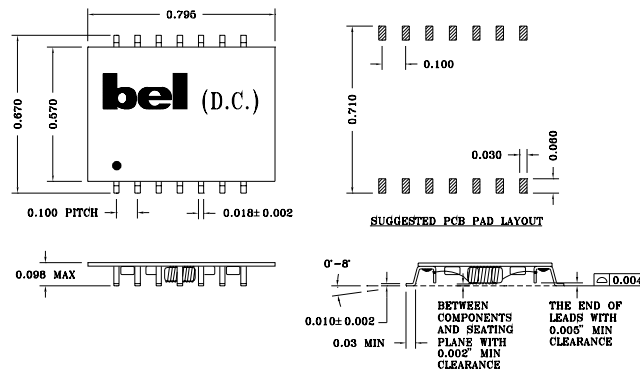
defining a degree of excellence

# HIGH SPEED LAN MAGNETICS

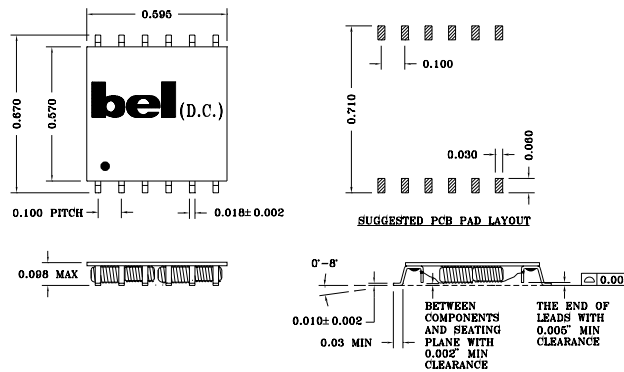
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## MECHANICALS

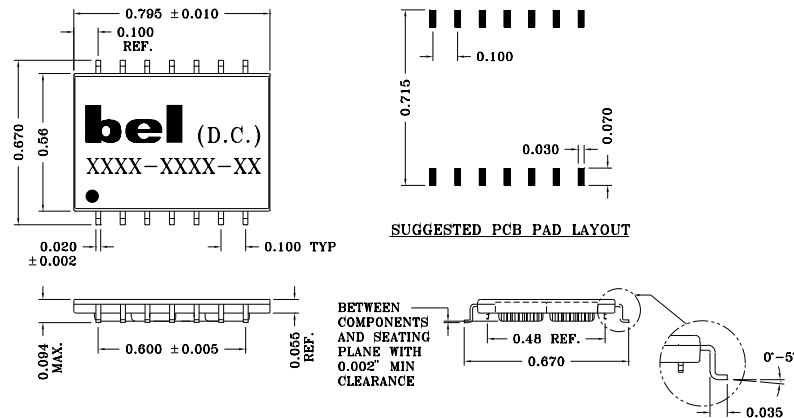
1



2



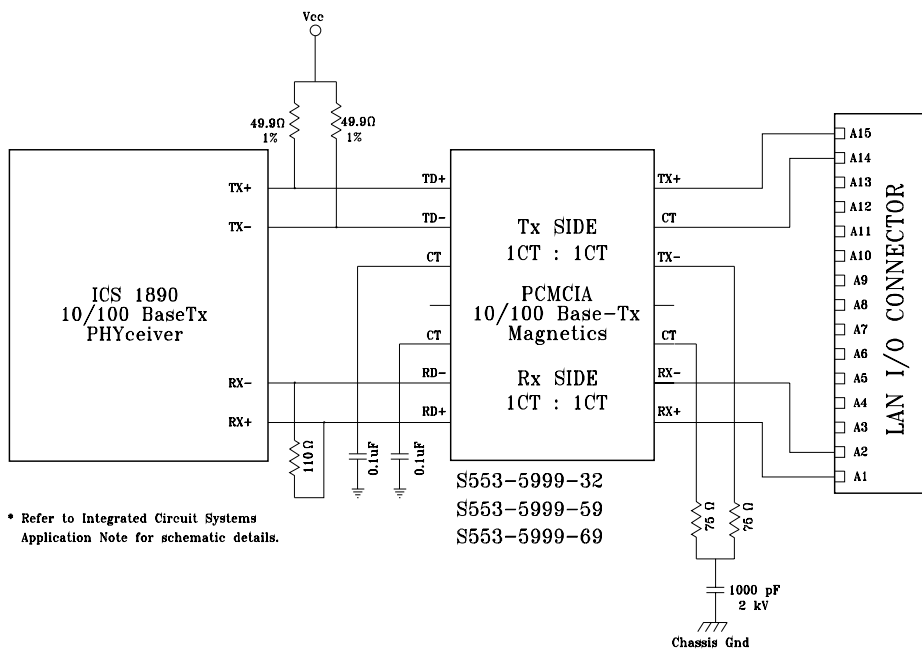
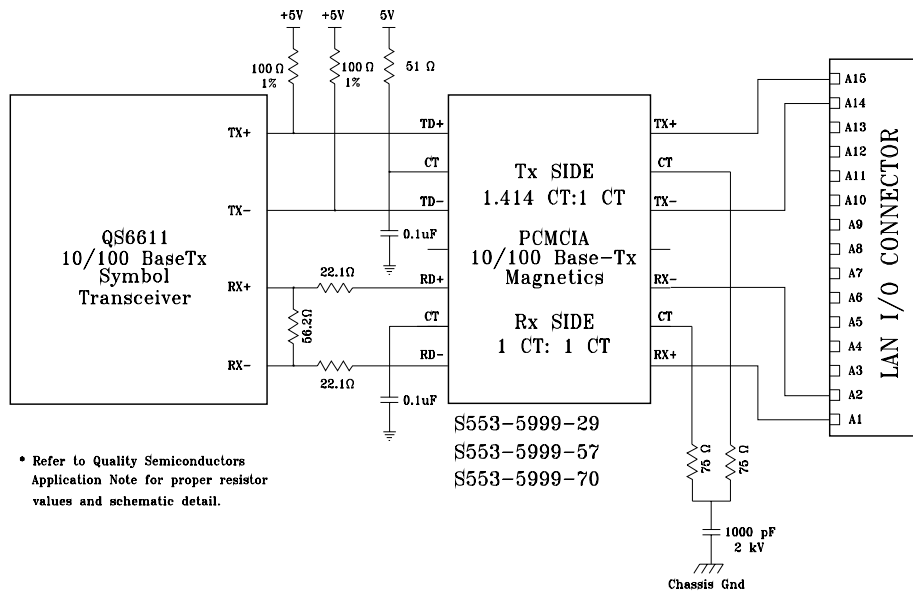
3



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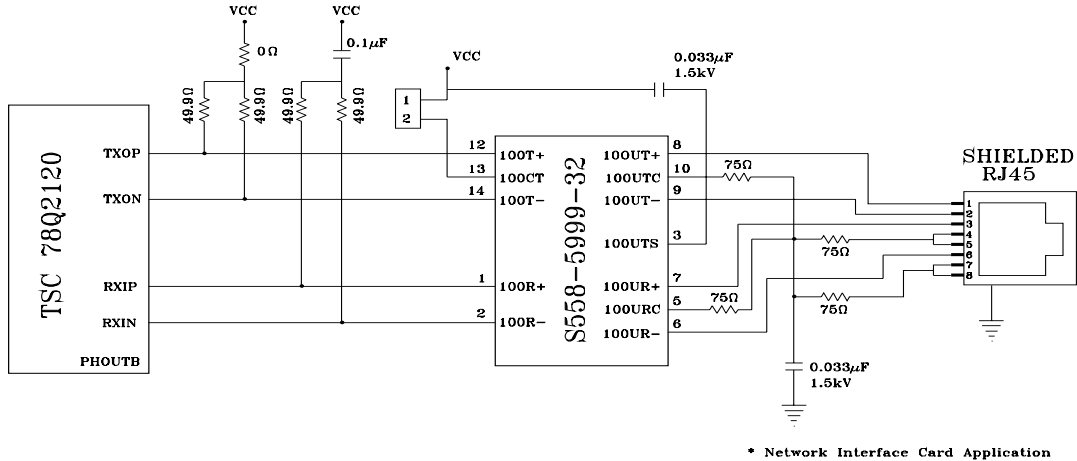
## APPLICATION CIRCUITS



Specifications subject to change without notice.

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### APPLICATION CIRCUITS (CONT'D)



### APPLICATION NOTES

- Each Bel part type is designed with high voltage isolation transformers and common mode chokes. The S558-5999-B3 also includes an impedance matched common mode termination. All designs have been created to provide 350μH OCL with 8mA DC bias applied. Consult the Bel short form catalog and request a recommended application circuit for the specific configuration of each individual Bel part type.
- Available with tape and reel packaging.
- For availability and timing of Type I height magnetics modules, please consult the nearest Bel office.
- Additional models are available providing transmit and receive functions in separate packages, S558-5999-A0 and -A1.

#### Corporate Office

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