

# Single Port GigE Transformer

SMD Single Port Gigabit or Dual Port 10/100BASE-TX Isolation Modules



US Patent Numbers:  
5,656,985 6,297,721 B1  
6,297,720 B1 6,320,489 B1  
6,344,785 B1 6,662,431 B1

## Product Features:

- Gigabit Ethernet Discrete Transformer
- IEEE802.3ab Compliant
- UL/EN60950 Recognized
- 100% Electrical Testing
- 1500Vrms Hi-Pot
- Patented Open Frame Construction

Part Number	Circuit	Package	Temp. Range	Return Loss (min)				OCL (min) <small>(100KHz, 0.1Vrms, 8mA)</small>	RoHS <sup>1</sup>
				1-40MHz	60MHz	80MHz	100MHz		
TG1G-S001NZLF	A	NZ	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free
TG1G-S001NZRL	A	NZ	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)
TG1G-E001NZLF	A	NZ	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free
TG1G-E001NZRL	A	NZ	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)
TG1G-S002NZLF	B	NZ	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free
TG1G-S002NZRL	B	NZ	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)
TG1G-S010NZLF	C	NZ	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free
TG1G-S010NZRL	C	NZ	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)
TG1G-E010NZLF	C	NZ	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free
TG1G-E010NZRL	C	NZ	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)
TG1G-S012NZLF	D	NZ	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free
TG1G-S012NZRL	D	NZ	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)
TG1G-E012NZLF	D	NZ	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free
TG1G-E012NZRL	D	NZ	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)

### Notes:

1. Pb-Free parts are RoHS 6/6 compliant. RoHS (7a) parts contain lead per exemption 7a which is set to expire in July 2016.
2. Parts with RL suffix are not recommended for new designs.
3. For the smallest single port Gigabit transformer or dual port 10/100BASE-TX contact the factory about the proprietary *GEmini™* series.
4. Please contact the factory or representative for individual datasheets or additional information.

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				1-40MHz	60MHz	80MHz	100MHz	(100KHz, 0.1Vrms, 8mA)		
TG1G-S031NYLF	A	NY	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free	
TG1G-S031NYRL	A	NY	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)	
TG1G-S031NYLF	A	NY	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free	
TG1G-S031NYRL	A	NY	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)	
TG1G-E001NYLF	A	NY	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free	
TG1G-E001NYRL	A	NY	-40 to +85°C	-18dB	-14dB	-12dB <td -10dB	350µH	RoHS (7a)		
TG1G-S032NYLF	B	NY	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free	
TG1G-S032NYRL	B	NY	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)	
TG111-E032NYLF	B	NY	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free	
TG111-E032NYRL	B	NY	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)	
TG1G-S035NYLF	C	NY	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free	
TG1G-S035NYRL	C	NY	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)	
TG1G-E035NYLF	C	NY	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free	
TG1G-E035NYRL	C	NY	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)	
TG111-E112NYLF	D	NY	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	Pb-Free	
TG111-E112NYRL	D	NY	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)	
TG111-S001J24RL	A	J24	0 to 70°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)	
TG111-E001J24RL	A	J24	-40 to +85°C	-18dB	-14dB	-12dB	-10dB	350µH	RoHS (7a)	

Notes:

1. Pb-Free parts are RoHS 6/6 compliant. RoHS (7a) parts contain lead per exemption 7a which is set to expire in July 2016.
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4. Please contact the factory or representative for individual datasheets or additional information.

Circuit A



Circuit B



Circuit C



Circuit D



For additional information contact your [local representative](#), or HALO's support staff at (650) 903-3800 or [info@haloelectronics.com](mailto:info@haloelectronics.com)

# HALO Gigabit Family of Ethernet Transformers

## NZ Package



Recommended Solder Pad Layout  
 Dimensions: inch [mm]  
 Co-Planarity: 0.004 [0.10]

## NY Package



Recommended Solder Pad Layout

## J24 Package



Recommended Solder Pad Layout



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