

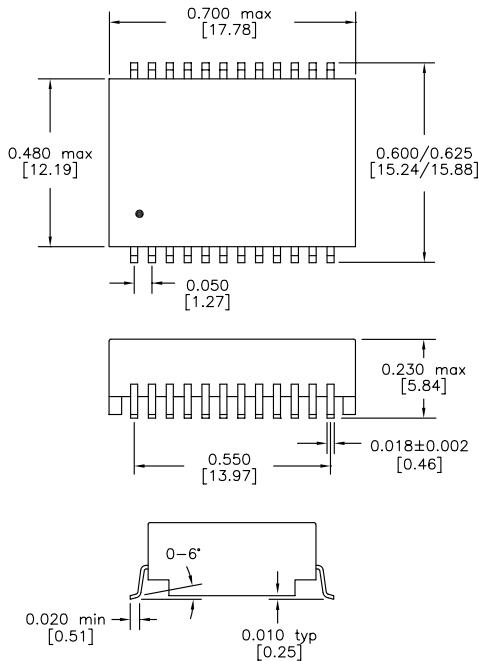
# HALO SMD Single Port Gigabit Isolation Modules

ELECTRONICS, INC.

HALO Electronics is pleased to present this standard series of high performance Gigabit Ethernet Isolation Modules to specifically address the isolation, insertion loss and return loss requirements of IEEE 802.3ab for 1000BASE-T applications. Available in a low profile 24 pin SMD package. Isolation Modules are available for most LAN IC manufacturer's products.

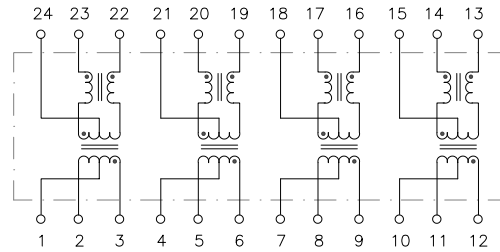


**Package NZ**

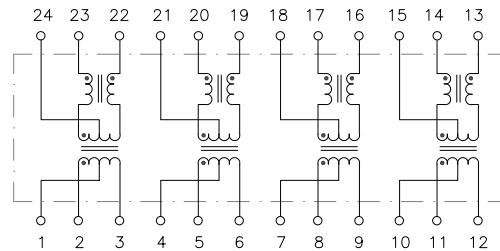


DIMENSIONS: Inch [mm]  
CO-PLANARITY: 0.004 [0.10]

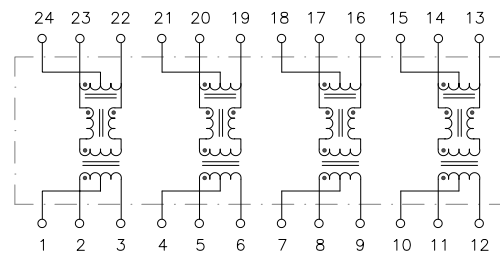
**Schematic A**



**Schematic B**



**Schematic C**



**Electrical Specifications @ 25°C**

Isolation Voltage: 1,500 Vrms  
 OCL (100KHz, 0.1Vrms, 8mA): 350 μH min.  
 Rise Time: 1.75 nS Typ.  
 Cross Talk: 33-20(f/100MHz)  
 CMR (0.1 -100Mhz) -30dB min.

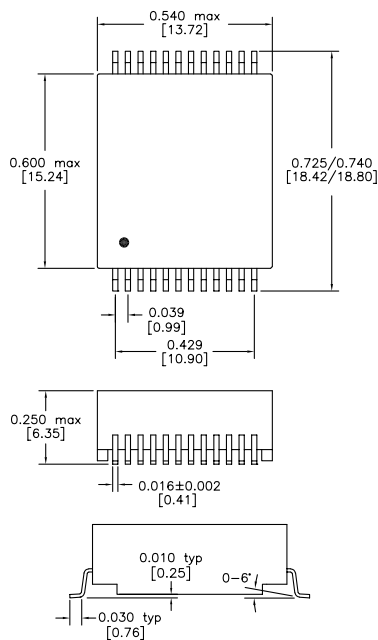
Patented Construction  
 US Pat Nbrs: 5,656,985 6,297,721 B1  
 6,297,720 B1 6,320,489 B1  
 6,344,785 B1 6,662,431 B1

Part Number	Turns Ratio ±2%	Circuit Schematic	Insertion Loss Return Loss (min)				
			(1-100Mhz)	1-40Mhz	60Mhz80Mhz	100Mhz	
TG1G-3506NZRL	1CT:1CT	A	-1.0 max	-18dB	-14.5dB	-12dB	-10dB
TG1G-S001NZRL	1CT:1CT	B	-1.0 max	-18dB	-14.5dB	-12dB	-10dB
TG1G-S002NZRL	1CT:1CT	C	-1.1 max	-18dB	-14.5dB	-12dB	-10dB

HALO Electronics is pleased to present this standard series of high density, high performance Gigabit Ethernet Isolation Modules. These devices have been designed specifically to address the isolation, insertion loss and return loss requirements of IEEE802.3ab for 10/100/1000BASE-TX applications. Compatible with all leading Phy vendors' gigabit IC's. Dual port versions are also available.

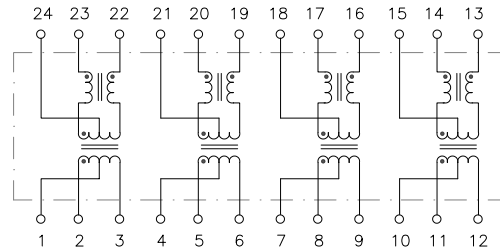


### Package NY

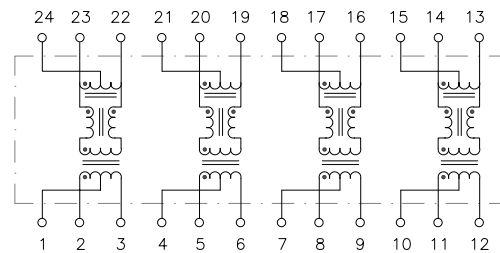


DIMENSIONS: Inch [mm]  
CO-PLANARITY: 0.004 [0.10]

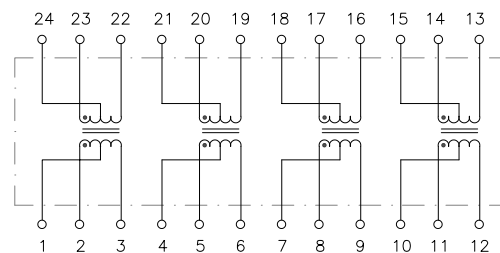
### Schematic A



### Schematic B



### Schematic C



### Electrical Specifications @ 25°C

Isolation Voltage:	1,500 Vrms
OCL (100KHz, 0.1Vrms, 8mA):	350 μH
Turns Ratio:	1CT:1CT
Rise Time:	1.75nS
CMR (0.1 – 100MHz):	-40dB typ. (not applicable to Circuit C)
Crosstalk:	[33-20log (F/100MHz)]dB typ

### Patented Construction

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

Part Number	Circuit Schematic	Insertion Loss (1-100MHz)	Return Loss (min)				Temp Range
			1-40MHz	60MHz	80MHz	100MHz	
TG1G-S031NYRL	A	-1.0dB max	-18dB	-14dB	-12dB	-10dB	0 to 70C
TG1G-S032NYRL	B	-1.1dB max	-18dB	-14dB	-12dB	-10dB	0 to 70C
TG1G-S035NYRL	C	-1.0dB max	-18dB	-14dB	-12dB	-10dB	0 to 70C
TG1G-E001NYRL	A	-1.1dB max	-18dB	-14dB	-12dB	-10dB	-40 to +85C