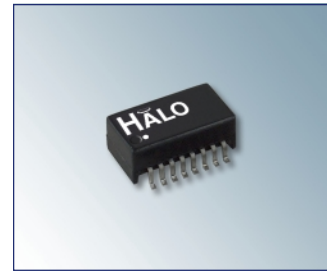


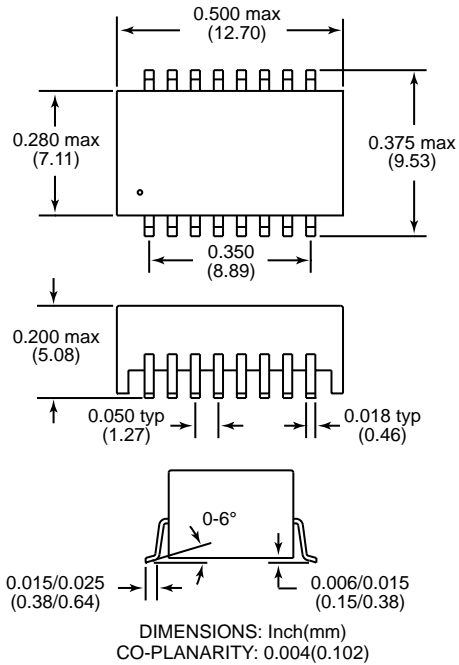
# HALO SMD Dual Line Interface Modules

HALO ELECTRONICS, INC.

HALO Electronics has developed this standard series of 16 pin SMD Line Interface Modules to meet the isolation and impedance match requirements for T1, E1, CEPT and PRI ISDN applications. Non-standard designs are also available. UL1950, IEC950 and EN60950 recognized. To select the correct line interface magnetic device, please refer to the [HALO LIU Selection Guide](#).



### N1 Package



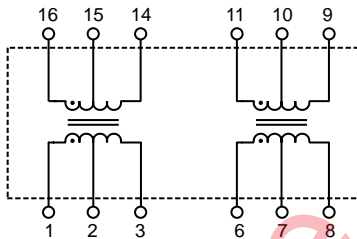
### Patented Construction

- US Patents: 5,656,985  
6,297,721 B1  
6,297,720 B1  
6,320,489 B1  
6,344,785 B1

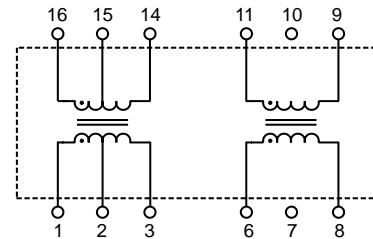


RoHS compliant versions are available. Specify RoHS compliant product by adding the suffix "RL".

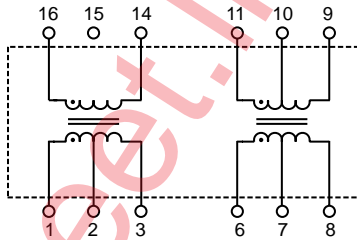
### Schematic A



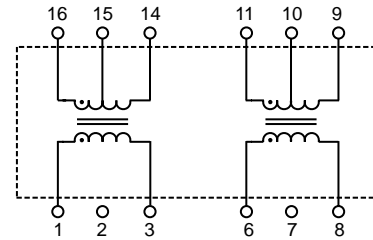
### Schematic B



### Schematic C



### Schematic D

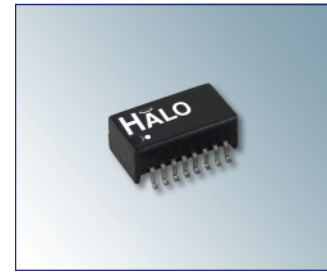


### Electrical Specifications @ 25°C

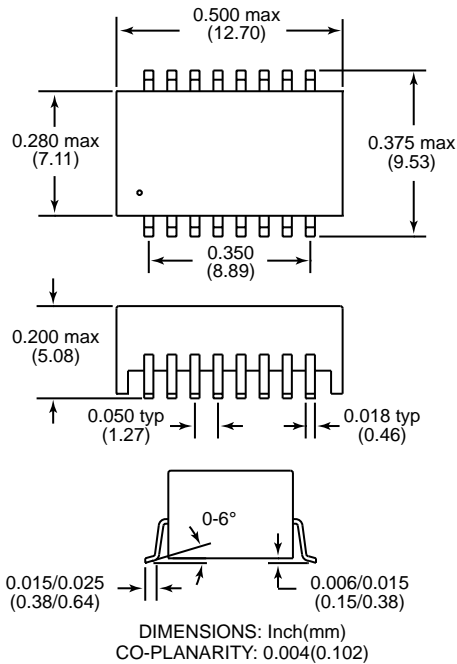
- Operating Temp: 0 to +70° C  
Isolation Voltage: 1,500 Vrms  
Leakage Inductance: 0.4µH Max.  
Cw/w: 30pF Max.  
Crosstalk (0.1-10MHz): -60dB Typ.  
PRI DCR: 0.7ΩMax.

Part Number	Schematic	Turns Ratio PRI : SEC	PRI OCL (mH typ)	Primary Pins
TG08-1205N1	A	1CT:2CT & 1CT:2CT	1.2	1-3 & 6-8
TG24-1205N1	A	1CT:1.36CT & 1CT:1.36CT	1.2	16-14 & 6-8
TG26-1205N1	A	1CT:2CT & 1CT:2CT	1.2	16-14 & 6-8
TG27-1205N1	A	1CT:2CT & 1CT:1.36CT	1.2	16-14 & 6-8
TG38-1205N1	A	1CT:1.15CT & 1CT:1.15CT	1.2	1-3 & 6-8
TG42-1205N1	A	1CT:1.41CT & 1CT:1.41CT	1.2	16-14 & 6-8
TG48-1205N1	B	1CT:2CT & 1:1	1.2	1-3 & 6-8
TG63-1205N1	C	1:1.15CT & 1CT:2CT	1.2	16-14 & 6-8
TG64-1205N1	C	1:1/1.26 & 1CT:2CT	1.2	16-14 & 6-8
TG73-1205N1	A	1CT:2.3CT & 1CT:1CT	1.2	16-14 & 6-8
TG74-1205N1	A	1CT:1CT & 1CT:2CT	1.2	16-14 & 6-8
TG80-1205N1	A	1CT:2.45CT & 1CT:2.45CT	1.2	16-14 & 6-8

HALO Electronics has developed this standard series of 16 pin SMD, extended temperature range, Line Interface Modules to meet the isolation and impedance match requirements for T1, E1, CEPT and PRI ISDN applications. Non-standard designs are also available. UL1950, IEC950 and EN60950 recognized. To select the correct line interface magnetic device, please refer to the [HALO LIU Selection Guide](#).



### N1 Package

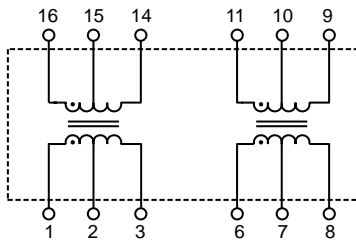


Patented Construction  
US Pat ents: 5,656,985  
6,297,721 B1  
6,297,720 B1  
6,320,489 B1  
6,344,785 B1

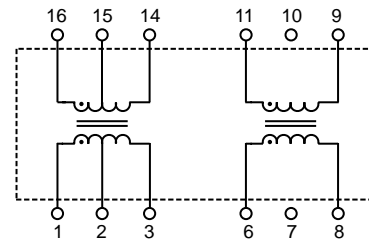


RoHS compliant versions are available.  
Specify RoHS compliant product by adding the suffix "RL".

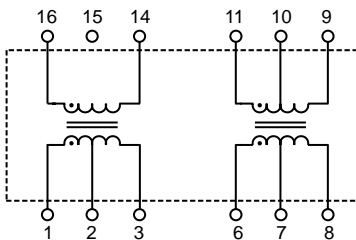
### Schematic A



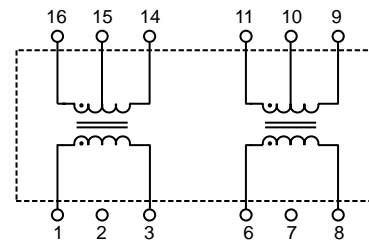
### Schematic B



### Schematic C



### Schematic D



### Electrical Specifications @ 25°C

Operating Temp: -40 to +85C  
Isolation Voltage: 1,500 Vrms  
Leakage Inductance: 0.5µH Max.  
Cw/w: 35pF Max.  
Crosstalk (0.1-10MHz): -60dB Typ.  
PRI DCR: 0.8ΩMax.

Part Number	Schematic	Turns Ratio PRI : SEC	PRI OCL (mH typ)	Primary Pins
TG23-1505N1	D	1:2.42CT & 1:2.42CT	1.5	1-3 & 6-8
TG26-1505N1	A	1CT:2CT & 1CT:2CT	1.5	16-14 & 6-8
TG27-1505N1	A	1CT:2CT & 1CT:1.36CT	1.5	16-14 & 6-8
TG28-1505N1	A	1CT:1CT & 1CT:1.36CT	1.5	16-14 & 6-8
TG35-1505N1	A	1CT:1.15CT & 1CT:1CT	1.5	16-14 & 6-8
TG37-S001N1	A	1CT :1.14CT & 1CT:1.14CT	1.5	16-14 & 6-8
TG42-1505N1	A	1CT:1.41CT & 1CT:1.41CT	1.5	16-14 & 6-8
TG63-1505N1	C	1:1.15CT & 1CT:2CT	1.5	16-14 & 6-8
TG63-S001N1	B	1CT:2CT & 1:1.15	1.5	1-3 & 6-8
TG64-1505N1	C	1:1:1.26 & 1CT:2CT	1.5	16-14 & 6-8
TG74-1505N1	A	1CT:1CT & 1CT:2CT	1.5	16-14 & 6-8
TG91-1505N1	A	1CT:2.4CT & 1CT:1CT	1.5	1-3 & 11-9