

# T1/E1 Quatra™ Isolation Modules



SMD 4 Port T1/E1 Transformer



## Product Features:

- T1/E1/CEPT/ISDN-PRI Quad Port Transformers
- UL/EN60950 Recognized
- DEMKO Recognized
- 100% Electrical Testing
- 1500Vrms Hi-Pot
- Patented Open Frame Construction

Standard Temp (0 to 70°C)		Turns Ratio (± 2%) PRI : SEC		Primary Pins			RoHS
Part Number	Circuit	TX	RX	TX	RX		
TG05-1205NXLFF	B	1:2	1:2	See Circuit Diagram	See Circuit Diagram	Pb-Free	
TG05-1205NXRL	B	1:2	1:2	See Circuit Diagram	See Circuit Diagram	RoHS (7a)	
TG28-1205NXLFF	F	1CT:1.36CT	1:1	1-3, 8-10, 11-13, 18-20	4-5, 6-7, 14-15, 16-17	Pb-Free	
TG28-1205NXRL	F	1CT:1.36CT	1:1	1-3, 8-10, 11-13, 18-20	4-5, 6-7, 14-15, 16-17	RoHS (7a)	
TG29-1205NXLFF	A	1:2	1:2CT	1-2, 9-10, 11-12, 19-20	38-36, 35-33, 28-26, 25-23	Pb-Free	
TG29-1205NXRL	A	1:2	1:2CT	1-2, 9-10, 11-12, 19-20	38-36, 35-33, 28-26, 25-23	RoHS (7a)	
TG39-1205NXLFF	B	1:1.15	1:1.15	See Circuit Diagram	See Circuit Diagram	Pb-Free	
TG39-1205NXRL	B	1:1.15	1:1.15	See Circuit Diagram	See Circuit Diagram	RoHS (7a)	

Extended Temp (-40 to +85°C)		Turns Ratio (± 2%) PRI : SEC		Primary Pins			RoHS
Part Number	Circuit	TX	RX	TX	RX		
TG23-1505NXLFF	B	1:2.42	1:2.42	See Circuit Diagram	See Circuit Diagram	Pb-Free	
TG23-1505NXRL	B	1:2.42	1:2.42	See Circuit Diagram	See Circuit Diagram	RoHS (7a)	
TG27-1505NXLFF	E	1:1.36	1:2CT	1-2, 6-7, 11-12, 16-17	38-36, 33-31, 28-26, 23-21	Pb-Free	
TG27-1505NXRL	E	1:1.36	1:2CT	1-2, 6-7, 11-12, 16-17	38-36, 33-31, 28-26, 23-21	RoHS (7a)	
TG29-1505NXLFF	A	1:2	1:2CT	1-2, 9-10, 11-12, 19-20	38-36, 35-33, 28-26, 25-23	Pb-Free	
TG29-1505NXRL	A	1:2	1:2CT	1-2, 9-10, 11-12, 19-20	38-36, 35-33, 28-26, 25-23	RoHS (7a)	
TG34-1505NXLFF	G	1:1.14/1.35	1:1.14/1.35	1-2, 6-7, 11-12, 16-17	37-36, 32-31, 27-26, 22-21	Pb-Free	
TG34-1505NXRL	G	1:1.14/1.35	1:1.14/1.35	1-2, 6-7, 11-12, 16-17	37-36, 32-31, 27-26, 22-21	RoHS (7a)	
TG36-1505NXLFF	C	1:1.15	1:1	1-2, 6-7, 11-12, 16-17	3-4, 8-9, 13-14, 18-19	Pb-Free	
TG36-1505NXRL	C	1:1.15	1:1	1-2, 6-7, 11-12, 16-17	3-4, 8-9, 13-14, 18-19	RoHS (7a)	

### Notes:

1. Pb-Free parts are RoHS 6/6 compliant. RoHS (7a) parts contain lead per exemption 7a.
2. Parts with RL suffix are not recommended for new designs.
3. Please contact the factory or representative for individual datasheets or additional information.

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

# T1/E1 Quatra™ Isolation Modules

SMD 4 Port T1/E1 Transformer



Part Number	Circuit	Turns Ratio ( $\pm 2\%$ ) PRI : SEC		Primary Pins		RoHS
		TX	RX	TX	RX	
TG37-1505NXLF	B	1:1.14	1:1.14	See Circuit Diagram	See Circuit Diagram	Pb-Free
TG37-1505NXRL	B	1:1.14	1:1.14	See Circuit Diagram	See Circuit Diagram	RoHS (7a)
TG37-5176NXLF	D	1:1.14CT	1:1.14CT	4-5, 9-10, 14-15, 19-20	40-39, 35-34, 30-29, 25-24	Pb-Free
TG37-5176NXRL	D	1:1.14CT	1:1.14CT	4-5, 9-10, 14-15, 19-20	40-39, 35-34, 30-29, 25-24	RoHS (7a)
TG39-1505NXLF	B	1:1.15	1:1.15	See Circuit Diagram	See Circuit Diagram	Pb-Free
TG39-1505NXRL	B	1:1.15	1:1.15	See Circuit Diagram	See Circuit Diagram	RoHS (7a)
TG42-1505NXLF	C	1:1.41	1:1.41	1-2, 6-7, 11-12, 16-17	38-37, 33-22, 28-27, 23-22	Pb-Free
TG42-1505NXRL	C	1:1.41	1:1.41	1-2, 6-7, 11-12, 16-17	38-37, 33-22, 28-27, 23-22	RoHS (7a)
TG49-LVL1NXLF	D	1:2CT	1CT:2	4-5, 9-10, 14-15, 19-20	1-3, 6-8, 11-13, 16-18	Pb-Free
TG49-LVL1NXRL	D	1:2CT	1CT:2	4-5, 9-10, 14-15, 19-20	1-3, 6-8, 11-13, 16-18	RoHS (7a)
TG63-1505NXLF	E	1:1.15	1:2CT	1-2, 6-7, 11-12, 16-17	38-36, 33-31, 28-26, 23-21	Pb-Free
TG63-1505NXRL	E	1:1.15	1:2CT	1-2, 6-7, 11-12, 16-17	38-36, 33-31, 28-26, 23-21	RoHS (7a)
TG63-S003NXLF	C	1:1.15	1:2	3-4, 8-9, 13-14, 18-19	1-2, 6-7, 11-12, 16-17	Pb-Free
TG63-S003NXRL	C	1:1.15	1:2	3-4, 8-9, 13-14, 18-19	1-2, 6-7, 11-12, 16-17	RoHS (7a)
TG64-1505NXLF	G	1:1/1.26	1:2CT	1-2, 6-7, 11-12, 16-17	37-36, 32-31, 27-26, 22-21	Pb-Free
TG64-1505NXRL	G	1:1/1.26	1:2CT	1-2, 6-7, 11-12, 16-17	37-36, 32-31, 27-26, 22-21	RoHS (7a)
TG70-1505NXLF	D	1:1.36CT	1:1.36CT	4-5, 9-10, 14-15, 19-20	40-39, 35-34, 30-29, 25-24	Pb-Free
TG70-1505NXRL	D	1:1.36CT	1:1.36CT	4-5, 9-10, 14-15, 19-20	40-39, 35-34, 30-29, 25-24	RoHS (7a)
TG73-1505NXLF	C	1:2.3	1:1	3-4, 8-9, 13-14, 18-19	1-2, 6-7, 11-12, 16-17	Pb-Free
TG73-1505NXRL	C	1:2.3	1:1	3-4, 8-9, 13-14, 18-19	1-2, 6-7, 11-12, 16-17	RoHS (7a)
TG80-1505NXLF	G	1:2.45CT	1:2.45CT	1-2, 6-7, 11-12, 16-17	37-36, 32-31, 27-26, 22-21	Pb-Free
TG80-1505NXRL	G	1:2.45CT	1:2.45CT	1-2, 6-7, 11-12, 16-17	37-36, 32-31, 27-26, 22-21	RoHS (7a)
TG83-1505NXLF	C	1:2	1:1	1-2, 6-7, 11-12, 16-17	37-36, 32-31, 27-26, 22-21	Pb-Free
TG83-1505NXRL	C	1:2	1:1	1-2, 6-7, 11-12, 16-17	37-36, 32-31, 27-26, 22-21	RoHS (7a)
TG87-S004NXLF	E	1:2CT	1:1	38-36, 33-31, 28-26, 23-21	1-2, 6-7, 11-12, 16-17	Pb-Free
TG87-S004NXRL	E	1:2CT	1:1	38-36, 33-31, 28-26, 23-21	1-2, 6-7, 11-12, 16-17	RoHS (7a)

Notes:

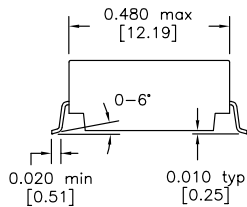
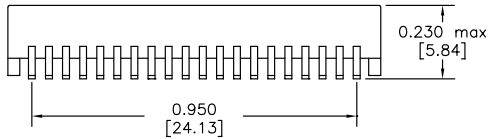
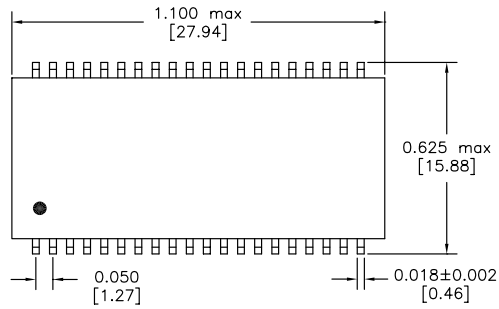
1. Pb-Free parts are RoHS 6/6 compliant. RoHS (7a) parts contain lead per exemption 7a.
2. Parts with RL suffix are not recommended for new designs.
3. Please contact the factory or representative for individual datasheets or additional information.

	Standard Temp	Extended Temp
OCL:	1.2mH (typ)	1.5mH (typ)
DCR:	0.7 $\Omega$ (max)	0.8 $\Omega$ (max)
LL:	0.4 $\mu$ F (max)	0.5 $\mu$ F (max)

Electrical Specifications @ 25°C

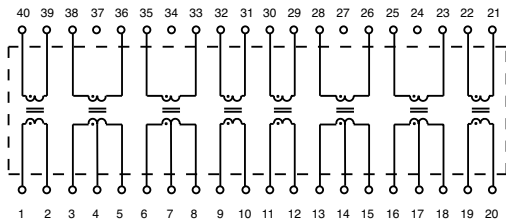
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# HALO Quatra™ T1/E1 Transformer

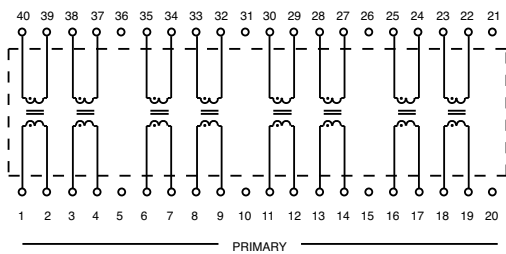


Dimensions: inch [mm]  
Co-Planarity: 0.004 [0.10]

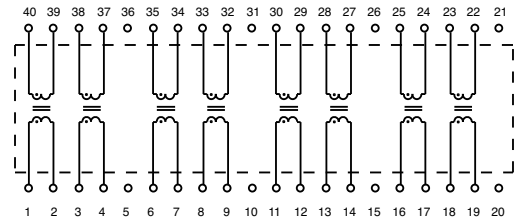
## Circuit A



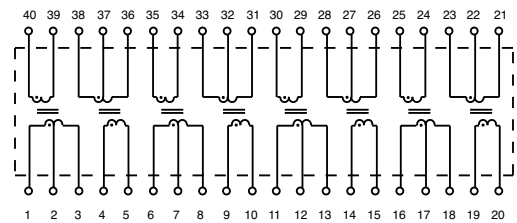
## Circuit B



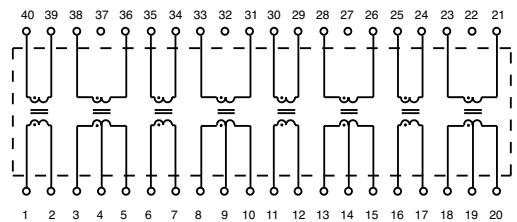
## Circuit C



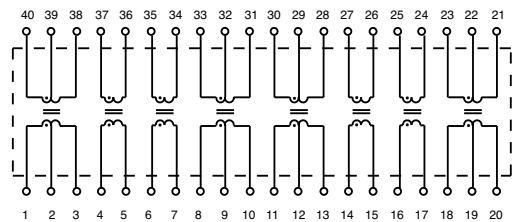
## Circuit D



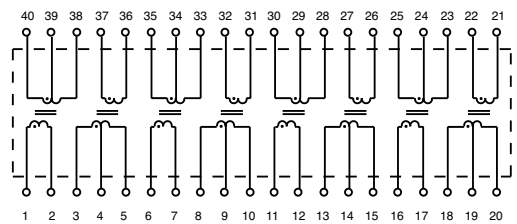
## Circuit E



## Circuit F



## Circuit G



Patented Construction

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

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