Quatra™ 10BASE-T Transformer

SMD Quad Port 10BASE-T Transformer

HALO ELECTRONICS, INC.

Product Features:

- Four Port 10BASE-T
- IEEE802.3i Compliant
- UL/EN60950 Recognized
- 100% Compliance Testing
- 1500Vrms Hi-Pot
- Patented Open Frame Construction

Part Number	Turns Ratio ±3% TX	Turns Ratio ±3% RX	PRI OCL TX/RX (µH typ)	Cw/w TX/RX (pF max)	PRI LL TX/RX (µH max)	PRI DCR TX/RX (Ω max)	Optional CMR Choke	RoHS[1]
TG44-1406NXLF	1CT:1.41	1:1	140	12	0.4	0.4	N/A	Pb-Free
TG44-1406NXRL	1CT:1.41	1:1	140	12	0.4	0.4	N/A	RoHS (7a)
TG45-1406NXLF	1CT:1.41CT	1:1	140	12	0.4	0.4	TX	Pb-Free
TG45-1406NXRL	1CT:1.41CT	1:1	140	12	0.4	0.4	TX	RoHS (7a)
TG46-1406NXLF	1CT:1.41CT	1:1	140	12	0.4	0.4	TX/RX	Pb-Free
TG46-1406NXRL	1CT:1.41CT	1:1	140	12	0.4	0.4	TX/RX	RoHS (7a)
TG57-1006NXLF	1CT:1	1:1	100	12	0.3	0.3	N/A	Pb-Free
TG57-1006NXRL	1CT:1	1:1	100	12	0.3	0.3	N/A	RoHS (7a)
TG58-1006NXLF	1CT:1CT	1:1	100	12	0.3	0.3	TX	Pb-Free
TG58-1006NXRL	1CT:1CT	1:1	100	12	0.3	0.3	TX	RoHs (7a)
TG59-1006NXLF	1CT:1CT	1:1	100	12	0.3	0.3	TX/RX	Pb-Free
TG59-1006NXRL	1CT:1CT	1:1	100	12	0.3	0.3	TX/RX	RoHS (7a)
TG62-1006NXLF	2CT:1	1:1	150	10	0.6 / 0.3	0.35	N/A	Pb-Free
TG62-1006NXRL	2CT:1	1:1	150	10	0.6 / 0.3	0.35	N/A	RoHS (7a)
TG66-1006NXLF	2CT:1CT	1:1	150	10	0.9 / 0.3	0.35	TX	Pb-Free
TG66-1006NXRL	2CT:1CT	1:1	150	10	0.9 / 0.3	0.35	TX	RoHS (7a)
TG87-2006NXLF	1CT:2	1:1	50 / 200	10 / 15	0.15 / 0.2	0.35 / 0.5	N/A	Pb-Free
TG87-2006NXRL	1CT:2	1:1	50 / 200	10 / 15	0.15 / 0.2	0.35 / 0.5	N/A	RoHS (7a)
TG88-2006NXLF	1CT:2CT	1:1	50 / 200	9 / 11	0.2 / 0.15	0.35 / 0.5	TX	Pb-Free
TG88-2006NXRL	1CT:2CT	1:1	50 / 200	9 / 11	0.2 / 0.15	0.35 / 0.5	TX	RoHS (7a)
TG89-2006NXLF	1CT:2CT	1:1	50 / 200	9 / 11	0.2 / 0.3	0.35 / 0.5	TX/RX	Pb-Free
TG89-2006NXRL	1CT:2CT	1:1	50 / 200	9 / 11	0.2 / 0.3	0.35 / 0.5	TX/RX	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. The cable side CTs are not present on those TX circuits without CMR chokes.
4. 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

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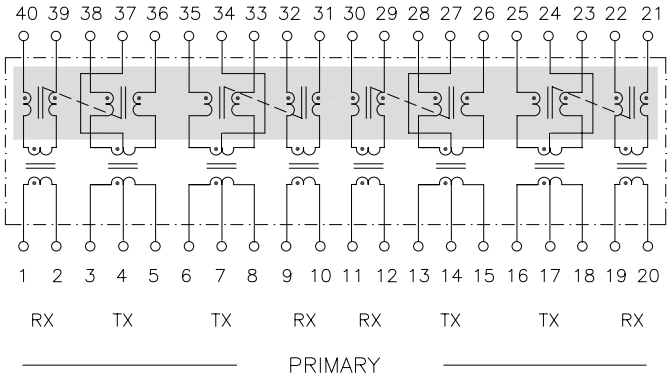
Circuit Diagram



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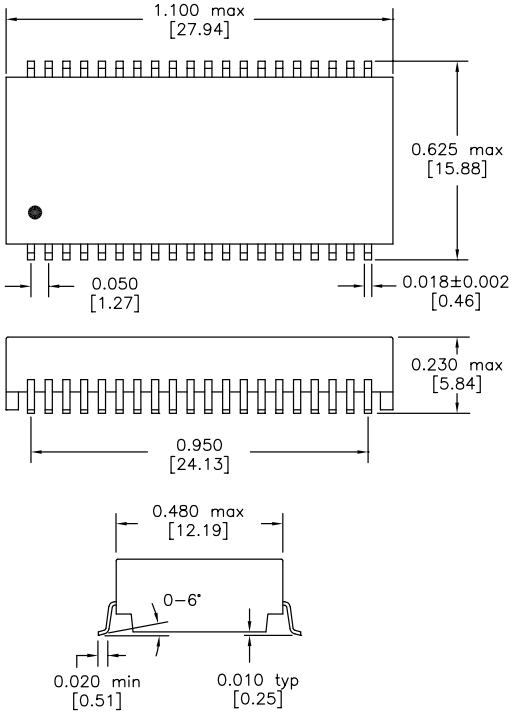

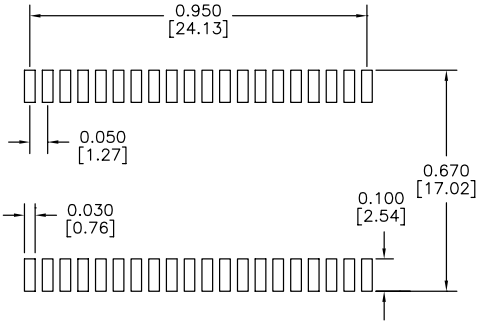

Recommended Solder Pad Layout
Dimensions: inch [mm]
Co-Planarity: 0.004 [0.10]

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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TG41-S010NXLF	1CT:2.5CT	1:1	35 / 200	15	0.1 / 0.4	0.3 / 0.5	TX/RX	Pb-Free
TG41-S010NXRL	1CT:2.5CT	1:1	35 / 200	15	0.1 / 0.4	0.3 / 0.5	TX/RX	RoHS (7a)
TG44-S010NXLF	1CT:1.41	1:1	140	12	0.4	0.4	N/A	Pb-Free
TG44-S010NXRL	1CT:1.41	1:1	140	12	0.4	0.4	N/A	RoHS (7a)
TG45-S010NXLF	1CT:1.41CT	1:1	140	12	0.4	0.4	TX	Pb-Free
TG45-S010NXRL	1CT:1.41CT	1:1	140	12	0.4	0.4	TX	RoHS (7a)
TG46-S010NXLF	1CT:1.41CT	1:1	140	12	0.4	0.4	TX/RX	Pb-Free
TG46-S010NXRL	1CT:1.41CT	1:1	140	12	0.4	0.4	TX/RX	RoHS (7a)
TG57-S010NXLF	1CT:1CT	1:1	100	12	0.3	0.3	N/A	Pb-Free
TG57-S010NXRL	1CT:1CT	1:1	100	12	0.3	0.3	N/A	RoHS (7a)
TG58-S010NXLF	1CT:1CT	1:1	100	12	0.3	0.3	TX	Pb-Free
TG58-S010NXRL	1CT:1CT	1:1	100	12	0.3	0.3	TX	RoHS (7a)
TG59-S010NXLF	1CT:1CT	1:1	100	12	0.3	0.3	TX/RX	Pb-Free
TG59-S010NXRL	1CT:1CT	1:1	100	12	0.3	0.3	TX/RX	RoHS (7a)
TG62-S010NXLF	2CT:1	1:1	150	10	0.6 / 0.3	0.35	N/A	Pb-Free
TG62-S010NXRL	2CT:1	1:1	150	10	0.6 / 0.3	0.35	N/A	RoHS (7a)
TG66-S010NXLF	2CT:1CT	1:1	150	10	0.9 / 0.3	0.35	TX/RX	Pb-Free
TG66-S010NXRL	2CT:1CT	1:1	150	10	0.9 / 0.3	0.35	TX/RX	RoHS (7a)
TG87-S010NXLF	1CT:2	1:1	50 / 200	9 / 11	0.75 / 0.15	0.35 / 0.5	N/A	Pb-Free
TG87-S010NXRL	1CT:2	1:1	50 / 200	9 / 11	0.75 / 0.15	0.35 / 0.5	N/A	RoHS (7a)
TG88-S010NXLF	1CT:2CT	1:1	50 / 200	9 / 11	0.2 / 0.15	0.35 / 0.5	TX	Pb-Free
TG88-S010NXRL	1CT:2CT	1:1	50 / 200	9 / 11	0.2 / 0.15	0.35 / 0.5	TX	RoHS (7a)
TG89-S010NXLF	1CT:2CT	1:1	50 / 200	9 / 14	0.2 / 0.3	0.2 / 0.3	TX/RX	Pb-Free
TG89-S010NXRL	1CT:2CT	1:1	50 / 200	9 / 14	0.2 / 0.3	0.2 / 0.3	TX/RX	RoHS (7a)

Notes:
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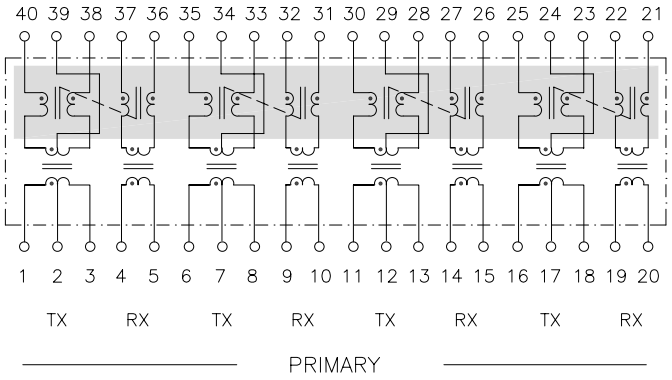
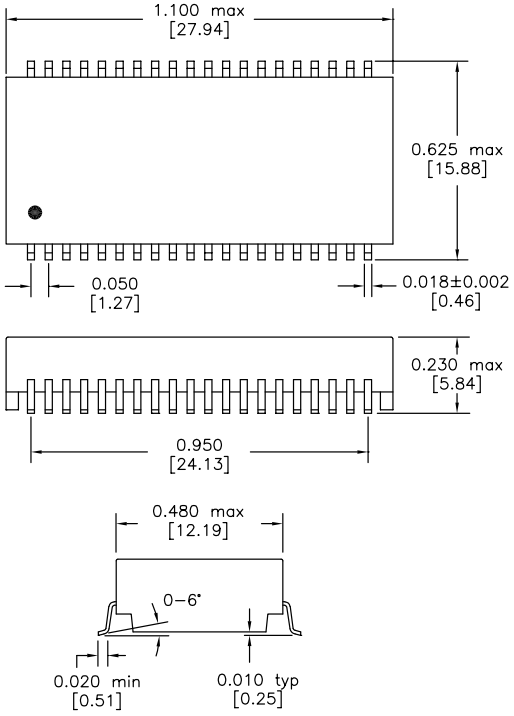
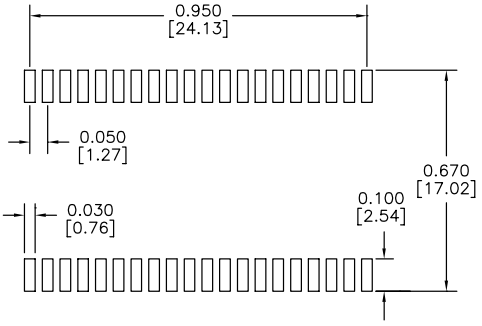


Mechanical





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TG44-S020NXLF	1CT:1.41	1:1	140	12	0.4	0.4	N/A	Pb-Free
TG44-S020NXRL	1CT:1.41	1:1	140	12	0.4	0.4	N/A	RoHS (7a)
TG45-S020NXLF	1CT:1.41CT	1:1	140	12	0.4	0.4	TX	Pb-Free
TG45-S020NXRL	1CT:1.41CT	1:1	140	12	0.4	0.4	TX	RoHS (7a)
TG46-S020NXLF	1CT:1.41CT	1:1	140	12	0.4	0.4	TX/RX	Pb-Free
TG46-S020NXRL	1CT:1.41CT	1:1	140	12	0.4	0.4	TX/RX	RoHS (7a)
TG57-S020NXLF	1CT:1	1:1	100	12	0.3	0.3	N/A	Pb-Free
TG57-S020NXRL	1CT:1	1:1	100	12	0.3	0.3	N/A	RoHS (7a)
TG58-S020NXLF	1CT:1CT	1:1	100	12	0.3	0.3	TX	Pb-Free
TG58-S020NXRL	1CT:1CT	1:1	100	12	0.3	0.3	TX	RoHS (7a)
TG59-S020NXLF	1CT:1CT	1:1	100	12	0.3	0.3	TX/RX	Pb-Free
TG59-S020NXRL	1CT:1CT	1:1	100	12	0.3	0.3	TX/RX	RoHS (7a)
TG62-S020NXLF	2CT:1	1:1	150	10	0.6 / 0.3	0.35	N/A	Pb-Free
TG62-S020NXRL	2CT:1	1:1	150	10	0.6 / 0.3	0.35	N/A	RoHS (7a)
TG66-S020NXLF	2CT:1CT	1:1	150	10	0.9 / 0.3	0.35	TX/RX	Pb-Free
TG66-S020NXRL	2CT:1CT	1:1	150	10	0.9 / 0.3	0.35	TX/RX	RoHS (7a)
TG87-S020NXLF	1CT:2	1:1	50 / 200	9 / 11	0.075 / 0.15	0.35 / 0.5	N/A	Pb-Free
TG87-S020NXRL	1CT:2	1:1	50 / 200	9 / 11	0.075 / 0.15	0.35 / 0.5	N/A	RoHS (7a)
TG88-S020NXLF	1CT:2CT	1:1	50 / 200	9 / 11	0.2 / 0.15	0.35 / 0.5	TX	Pb-Free
TG88-S020NXRL	1CT:2CT	1:1	50 / 200	9 / 11	0.2 / 0.15	0.35 / 0.5	TX	RoHS (7a)
TG89-S020NXLF	1CT:2CT	1:1	50 / 200	9 / 11	0.2 / 0.3	0.35 / 0.5	TX/RX	Pb-Free
TG89-S020NXRL	1CT:2CT	1:1	50 / 200	9 / 11	0.2 / 0.3	0.35 / 0.5	TX/RX	RoHS (7a)

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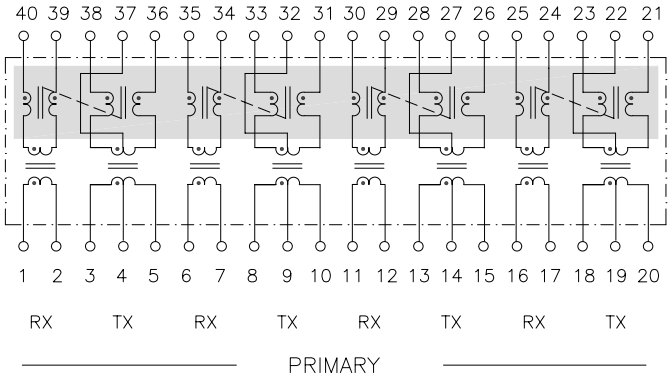

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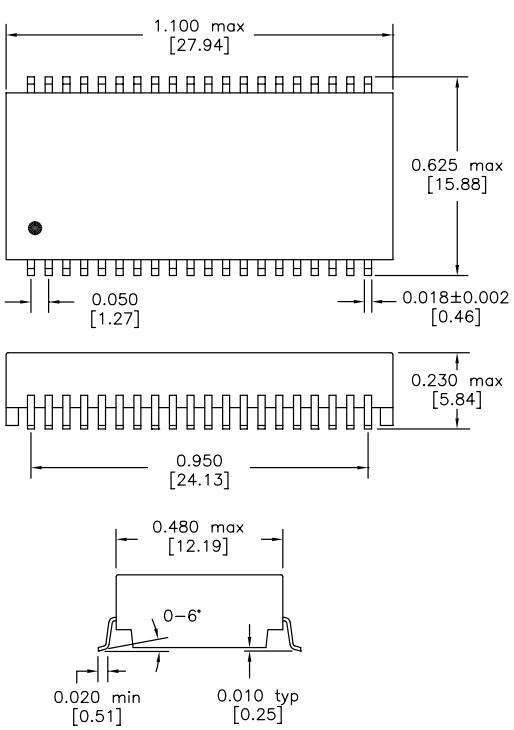

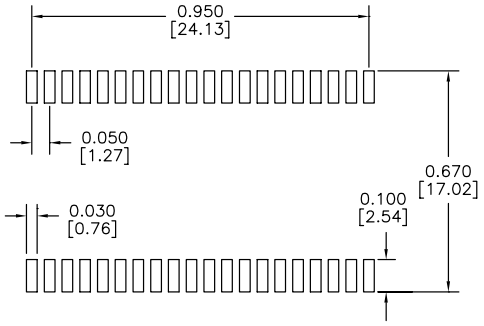

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HALO® Electronics is a leading supplier of high quality communication magnetics including signal transformers, filters, CMR chokes, PoE power transformers, DC/DC converters, and integrated Ethernet connectors. HALO's leading edge technology solutions are manufactured in ISO9001 and ISO14001 factories offering high quality products at a competitive price.

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