

IEEE 1394B FIRE WIRE 1.062Gb TRANSCIVER LINE INTERFACE MODULE

Copperhead™ Series



- Low power dissipation
- Low transmit/receive jitter
- Recommended for distances up to 20 meters
- IC grade transfer-molded package withstands 225°C peak temperature profile.
- Small package incorporating active transmit and passive receive circuits with integrated isolation transformers.
- Operating Temperature: -55°C to +125°C

TRANSMITTER - Electrical Specifications @ 25°C

Part Number	Input Data Voltage						Input Voltage Differential			Input Current		Differential Signal Level		
	VIL (V)			VIH (V)			VIN (mV)			IIL (μA)	IIH (μA)	VOUT (mV)		
	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MAX	MIN	TYP	MAX
TM1062DUXB	1.35	1.63	1.88	2.07	2.33	2.58	150	800	1200	40	150	1350	1400	1500
TM1062HUXB	1.35	1.63	1.88	2.07	2.33	2.58	150	800	1200	500	750	1350	1400	1500
TM1062DU3XB	1.35	1.63	1.88	2.07	2.33	2.58	150	800	1200	500	750	1350	1400	1500
TM125TXHUA	1.35	1.63	1.88	2.07	2.33	2.58	150	800	1200	500	750	1350	1400	1500
TM125TX3DUA	1.35	1.63	1.88	2.07	2.33	2.58	150	800	1200	500	750	1350	1400	1500

TRANSMITTER - Additional Electrical Specifications @ 25°C

Part Number	Power Dissipation (mW)	Θja (°C/W)		Input Voltage (V)	Data Rate DR (Mb/s)		Total P-P Transmit Jitter * (pS)		Output Rise-Fall Time (20-80%) * (pS)		Return Loss (dB)
	TYP	@85°C	@125°C	TYP	MIN	MAX	TYP	MAX	MIN	MAX	MIN
TM1062DUXB	232	41	39	3.30	246	1062	62	94	275	400	-12
TM1062HUXB	232	41	39	3.30	246	1062	62	94	275	400	-12
TM1062DU3XB	700	34	30	3.30	246	1062	62	94	275	400	-12
TM125TXHUA	232	41	39	3.30	98	246	62	94	275	400	-12
TM125TX3DUA	700	41	39	3.30	98	246	62	94	275	400	-12

TRANSFORMER COUPLED RECEIVER - Electrical Specifications @ 25°C

Part Number	Turns Ratio	Primary Inductance LM (μH)	Rise Time (20-80%) (pS)	Data Rate DR (Mb/s)		Winding Resistance DCR	Insertion Loss (dB)	Return Loss (dB)
	TYP	MIN	MAX	MIN	MAX	TYP	MAX	MIN
TM1062DUXB	1:1	4.5	300	246	1062	0.20	-2	-12
TM1062HUXB	1:1	4.5	300	246	1062	0.20	-2	-12
TM1062DU3XB	1:1	4.5	300	246	1062	0.20	-2	-12
TM125TXHUA	1:1	44	300	98	246	0.20	-2	-12
TM125TX3DUA	1:1	44	300	98	246	0.20	-2	-12

NOTES:

* At 1062 Mb/s Data Rate

- Add suffix "NL" for RoHS compliant version; i.e. TM1062DUXB becomes TM1062DUXBNL. NL parts have 100% SN Lead Finish (MSL:4). Part Limited to 225°C Max Reflow Temperature.



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M186.H (10/21)

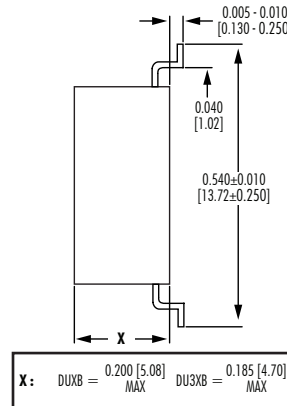
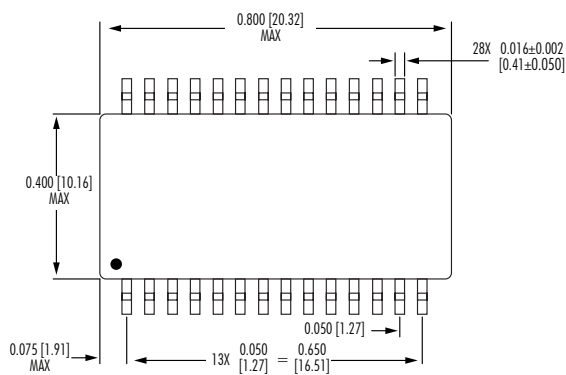
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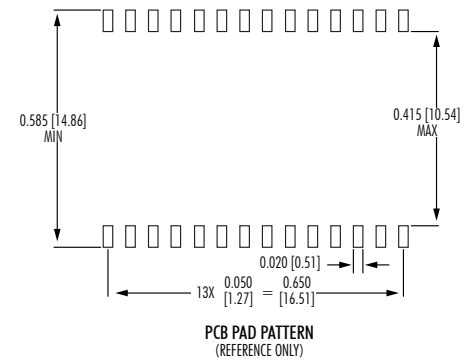


Mechanicals

TM1062DUXB / TM1062DU3XB / TM125TX3DUA

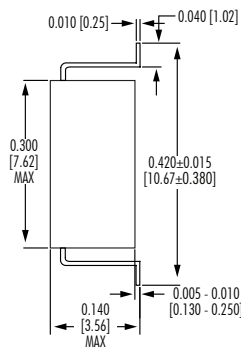
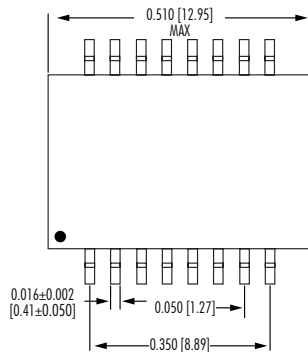


Dimensions: inch [mm]
Tolerance (unless otherwise specified): ±0.005 [0.13]

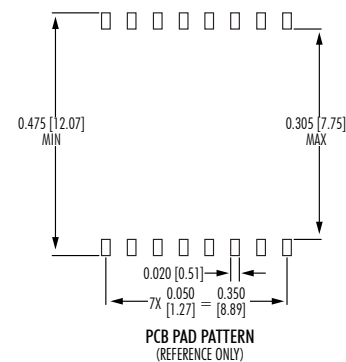


Mechanicals

TM1062HUXB / TM125TXHUA



Dimensions: inch [mm]
Tolerance (unless otherwise specified): ±0.005 [0.13]



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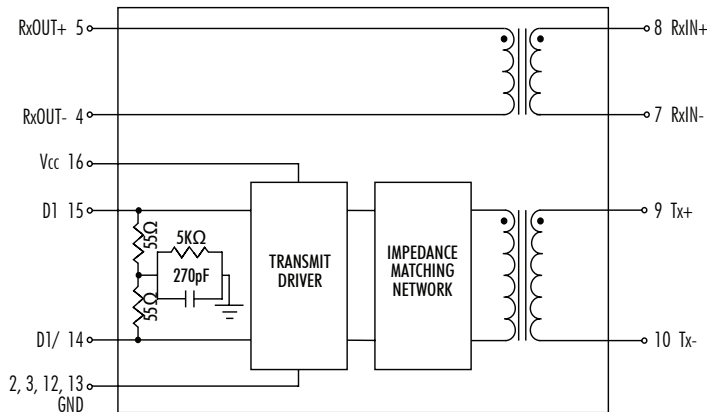
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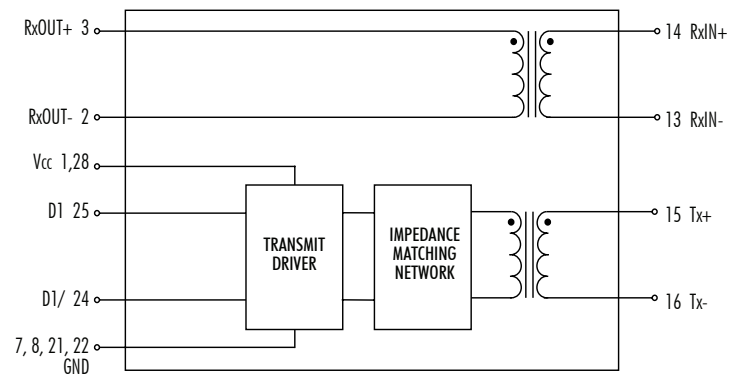
TM1062HUXB / TM125TXHUA

Electrical Schematics



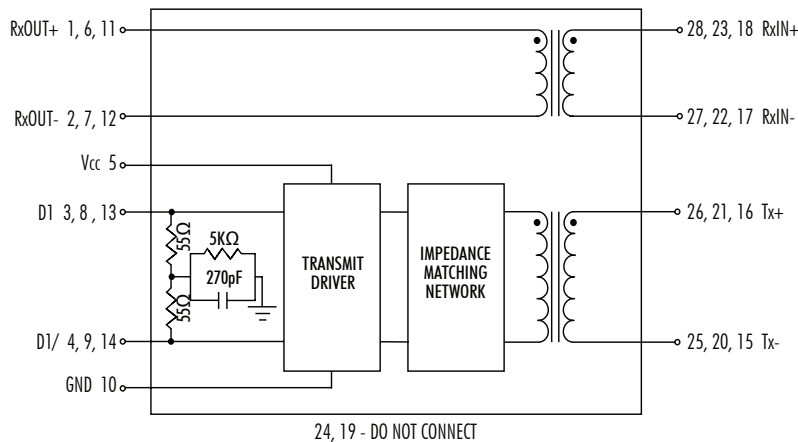
TM1062DUXB

Electrical Schematics



TM1062DU3XB / TM125TX3DUA

Electrical Schematics



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