

IEEE 1394B Firewire 200Mbps Transceiver Line Interface Module



Copperhead Series

- ⚙️ Isolation transformers
- ⚙️ 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

TRANSMITTER COUPLED RECEIVER — Electrical Specifications @ 25°C — Operating Temperature -55°C to +125°C

Part Number	Input Data Voltage - VIL			Input Data Voltage - VIH			Input Voltage Differential - VIN			Input Current - IIL	Input Current - IIH	Differential Signal Level - VOUT		
	(V)			(V)			(mV)			(μ A)	(μ A)	(mV)		
	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MAX	MIN	TYP	MAX
TM200TXHUA	1.35	1.63	1.88	2.07	2.33	2.58	150	800	1200	500	750	1200	1300	1500

TRANSMITTER — Additional Electrical Specifications @ 25°C — Operating Temperature -55°C to +125°C

Part Number	Power Dissipation (mW)	θ_{ja} ($^{\circ}$ 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	TYP	MAX	MIN
TM200TXHUA	232	41	39	3.3V	98	246	62	94	275	400	-12

TRANSMITTER COUPLED RECEIVER — Electrical Specifications @ 25°C — Operating Temperature -55°C to +125°C

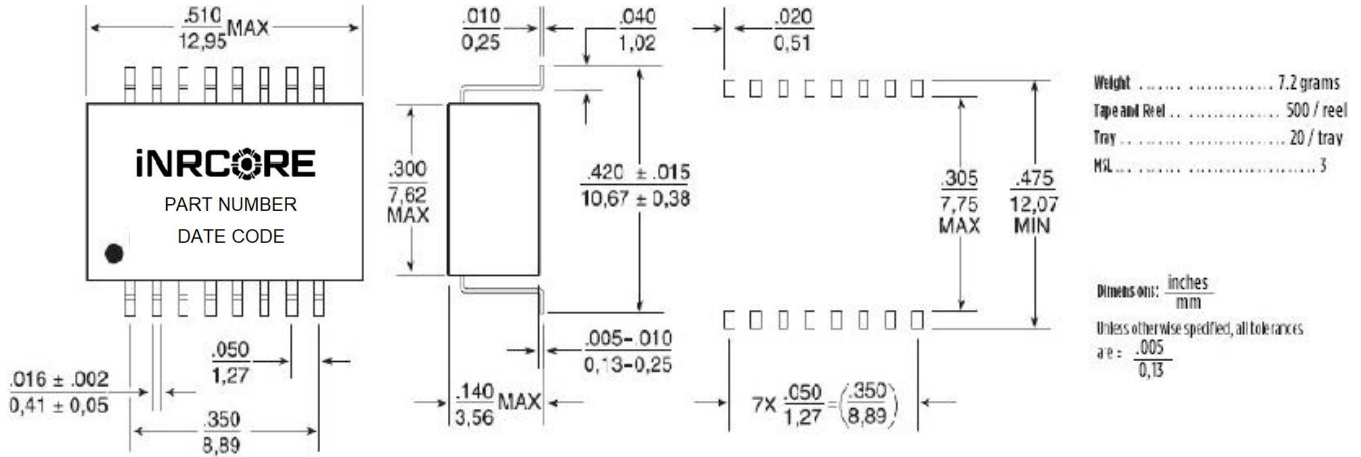
Part Number	Turns Ratio	Primary Inductance - LM (μ H)	Rise Time (20%-80%) (pS)	Data Rate - DR (Mb/s)		Winding Resistance - DCR (Ω)	Insertion Loss (dB)	Return Loss (dB)
	TYP	MIN	MAX	MIN	MAX	TYP	MAX	MAX
TM200TXHUA	1:1	40	300	98	246	0.2	-2 MAX	-12 MAX

Notes: To order RoHS compliant part, add the suffix "Z" to the part number (i.e. **TM200TXHUAZ**). Part Limited to 225°C Max Reflow Temperature.



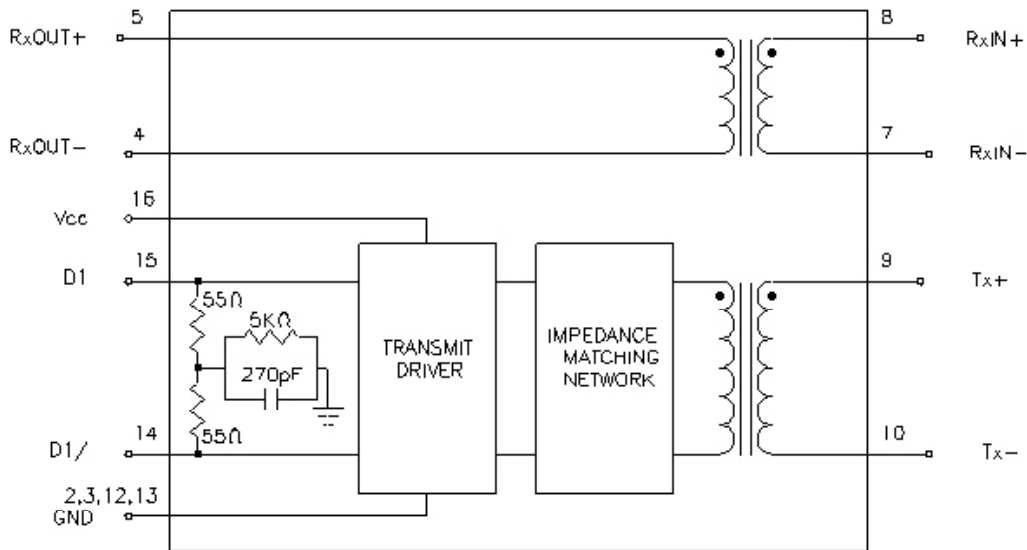
Mechanical

TM200TXHUA

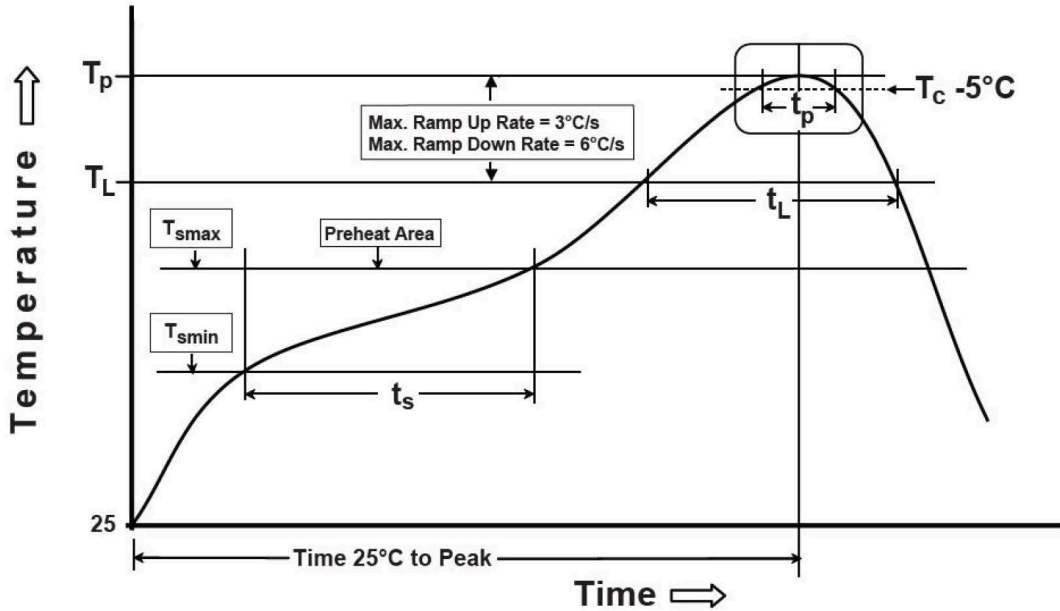


Electrical Schematic

TM200TXHUA



Transceiver Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



T _{SMIN} (°C)	T _{SMAX} (°C)	T _L (°C)	T _P (°C MAX)	t _s (s)	t _L (s)	t _p (s MAX)	Ramp-up rate (T _L to T _P)	Ramp-down rate (T _P to T _L)	Time 25°C to peak temperature (s MAX)
100	150	183	225	60-120	60-150	20	3°C/s MAX	6°C/s MAX	360

Notes:

1. All temperatures measured on the package leads.
2. Maximum times of reflow cycle: 2.

For More Information

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