

Transceiver Line interface Module

- Small package incorporating active transmit and passive receive circuits with integrated isolation transformers
- Low power dissipation
- Low transmit/receive jitter
- Recommended for distances up to 20 meters
- AS9100 Certified (Based on, including ISO 9001:2000)
- IC grade transfer-molded package withstands 225°C peak temperature profile.

TRANSMITTER — Electrical Specifications @ 25°C — Operating Temperature -55°C to +125°C														
Part Number	Input Data Voltage-V _{IL} (V)			Input Data Voltage-V _{IH} (V)			Input Voltage Differential - V _{IN} (mV)			Input Current - I _{IL} (μA)	Input Current - I _{IH} (μA)	Differential Signal Level - V _{OUT} (mV)		
	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MAX	MIN	TYP	MAX
X-1583	1.35	1.63	1.88	2.07	2.33	2.58	150	800	1200	40	150	1200	1300	1500

TRANSMITTER — Additional Electrical Specifications @ 25°C — Operating Temperature -55°C to +125°C											
Part Number	Power Dissipation (mW)	θ _{ja} (°C/W)		Input Voltage (V _{CC} ±10%)	Data Rate - D _R (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
X-1583	232	41	39	3.3V	246	1062	62	94	275	400	-12

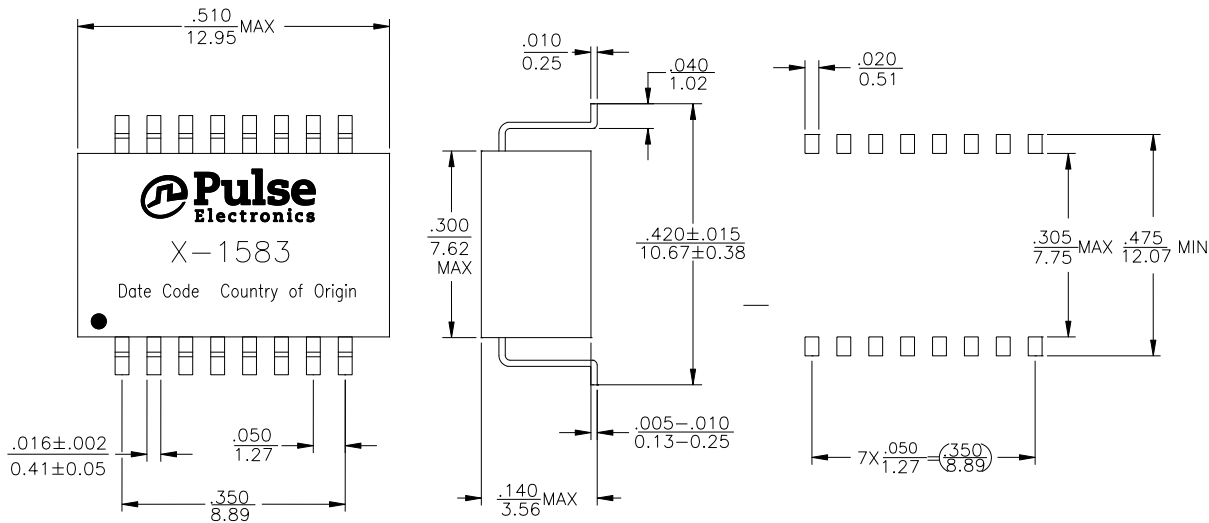
TRANSFORMER COUPLED RECEIVER — Electrical Specifications @ 25°C — Operating Temp. -55°C to +125°C								
Part Number	Turns Ratio	Primary Inductance-L _M (μH)	Rise Time (20%-80%) (pS)	Data Rate -D _R (Mb/s)		Winding Resistance - DCR (Ω)	Insertion Loss (dB)	Return Loss (dB)
	TYP	MIN	MAX	MIN	MAX	MAX		
X-1583	1:1	4.5	300	246	1062	0.2	-2MAX	-12MIN

Notes:

1. Add suffix “T” to part number for Tape & Reel packaging (ie: X-1583T)
2. Add suffix NL for RoHS compliant part (ie: X-1583NL)

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Mechanical



Weight.....7.2grams
 Tape & Reel.....500/reel
 Tray.....20/tray
 MSL.....3

Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,
 all tolerances are ± .005
 0.13

Schematic

