MIL-STD-1553 TRANSFORMERS

Low Profile Dual THT Non-QPL Interface Transformers

Ruggedized

iNRCORE FAMILY OF BRANDS



These Non-QPL interface transformers are built and tested in ISO 9001 approved facilities.

- Dual ratio, dual interface
- Through-the-board package
- Low profile, 0.155 inches height
- Conform to all electrical and physical parameters of MIL-PRF-21038/27
- Lead Finish: Sn63Pb37
- Moisture Sensitivity Level: 1
- Applicable Specifications:
  - MIL-STD-1553B
  - MIL-STD-202
  - MIL-PRF-21038
  - ISO 9001

Summary Performance Specifications

Droop	20% MAX
Overshoot	±1V MAX
Common Mode Rejection (CMR)	45dB MIN
Frequency Range (no load)	75kHz - 1MHz
Operating Temperature Range (based on Prefix)	DTLC 0°C to +70°C DTLN -40°C to +85°C DTL -55°C to +125°C
Weight	5 grams MAX
Insulation Resistance (MIN)	10K MΩ @ 250Vdc
Dielectric Withstanding Voltage	100Vrms

Characteristics

Part Number	Terminals	Ratio (±3%)	RDC MAX (Ω)	Impedance MIN (Ω)
(XXXX)1553-1	1-3:16-13 / 5-7:12-9 1-3:15-14 / 5-7:11-10	1CT:1CT 1CT:0.707CT	1-3, 5-7 = 3.0 16-13, 12-9 = 3.0	(1-3, 5-7) 4,000
(XXXX)1553-2	1-3:16-13 / 5-7:12-9 1-3:15-14 / 5-7:11-10	1.40CT:1CT 2CT:1CT	1-3, 5-7 = 3.5 16-13, 12-9 = 3.0	(1-3, 5-7) 7,200
(XXXX)1553-3	1-3:16-13 / 5-7:12-9 1-3:15-14 / 5-7:11-10	1.25CT:1CT 1.66CT:1CT	1-3, 5-7 = 3.2 16-13, 12-9 = 3.0	(1-3, 5-7) 4,000
(XXXX)1553-5*	1-3:16-13 / 5-7:12-9 1-3:15-14 / 5-7:11-10	1CT:2.12CT 1CT:1.50CT	1-3, 5-7 = 1.0 16-13, 12-9 = 3.5	(16-13, 12-9) 4,000
(XXXX)1553-45*	1-3:16-13 / 5-7:12-9 1-3:15-14 / 5-7:11-10	1CT:2.50CT 1CT:1.79CT	1-3, 5-7 = 1.0 16-13, 12-9 = 3.5	(16-13, 12-9) 4,000

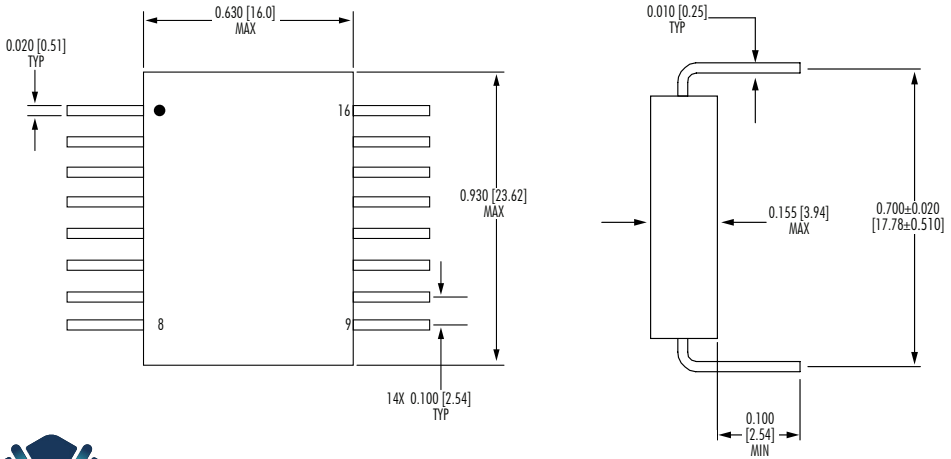
NOTES:

1. Refer to the Summary Performance Specifications Table above to select the prefix for your desired Operating Temperature Range. Replace **(XXXX)** from the part number in the table with the desired prefix: **DTLC**, **DTLN**, **DTL**.

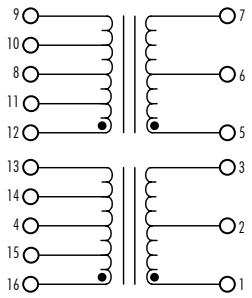
* Designed for transceivers utilizing a single supply voltage (+5V).

Mechanicals

Dimensions: inch [mm]
Tolerance (unless otherwise specified): ±0.010 [0.25]



Electrical Schematics



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MIL-PRF-21038/27 Inspection, Sampling, Testing

Table 1 - Group A Inspection

Level "C" **		Level "M"		Level "T"	
Tests	Sampling Plan	Tests	Sampling Plan	Tests	Sampling Plan
N/A	N/A	Electrical Characteristics per MIL-PRF-21038/27	Sample per Table 3	Thermal Shock	100%
N/A	N/A	Visual & Mechanical Inspection	Sample per Table 3	Winding Continuity	100%
N/A	N/A	N/A	N/A	Electrical Characteristics per MIL-PRF-21038/27	100%
N/A	N/A	N/A	N/A	Impedance	Sample per Table 3
N/A	N/A	N/A	N/A	Visual & Mechanical Inspection	Sample per Table 3

Table 2 - Group B Inspection

Level "C" **		Level "M"		Level "T"	
Tests	Sampling Plan	Tests	Sampling Plan	Tests	Sampling Plan
N/A	N/A	Dielectric Withstanding Voltage	Sample per Table 3	Dielectric Withstanding Voltage	Sample per Table 3
N/A	N/A	Insulation Resistance	Sample per Table 3	Insulation Resistance	Sample per Table 3

Table 3 - Sampling Plans for Group A and Group B Inspections

Lot Size	Group A, Group II Inspections	Group B
1 to 5	All	All
6 to 13	All	5
14 to 50	13	5
51 to 90	13	7
91 to 150	13	11
151 to 280	20	13
281 to 500	29	16
501 to 1,200	34	19
1,201 to 3,200	42	23
3,201 to 10,000	50	29

** Parts ordered to Level C are certified to comply with MIL-PRF-21038 Level C, however testing is performed per manufacturer's internal requirements and sampling rates.

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