# **MIL-STD-1553 TRANSFORMERS**

Low Profile Dual THT Non-QPL Interface Transformers Ruggedized





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

- Dual ratio, dual interface
- Through-the-board package
- Conform to all electrical and physical parameters of MIL-PRF-21038/27
- Moisture Sensitivity Level: 1
- Low profile, 0.155 inches height
- 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		Ratio	RDC MAX	Impedance MIN
Number	Terminals	(±3%)	(Ω)	(Ω)
(XXXX)1553-1	1-3:16-13 / 5-7:12-9	1CT:1CT	1-3, 5-7 = 3.0	(1-3, 5-7)
	1-3:15-14 / 5-7:11-10	1CT:0.707CT	16-13, 12-9 = 3.0	4,000
(XXXX)1553-2	1-3:16-13 / 5-7:12-9	1.40CT:1CT	1-3, 5-7 = 3.5	(1-3, 5-7)
	1-3:15-14 / 5-7:11-10	2CT:1CT	16-13, 12-9 = 3.0	7,200
(XXXX)1553-3	1-3:16-13 / 5-7:12-9	1.25CT:1CT	1-3, 5-7 = 3.2	(1-3, 5-7)
	1-3:15-14 / 5-7:11-10	1.66CT:1CT	16-13, 12-9 = 3.0	4,000
(XXXX)1553-5*	1-3:16-13 / 5-7:12-9	1 CT: 2.12 CT	1-3, 5-7 = 1.0	(16-13, 12-9)
	1-3:15-14 / 5-7:11-10	1 CT: 1.50 CT	16-13, 12-9 = 3.5	4,000
(XXXX)1553-45*	1-3:16-13 / 5-7:12-9	1 CT: 2.50CT	1-3, 5-7 = 1.0	(16-13, 12-9)
	1-3:15-14 / 5-7:11-10	1 CT: 1.79CT	16-13, 12-9 = 3.5	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).

#### **Electrical Schematics** Mechanicals Dimensions: inch [mm] Tolerance (unless otherwise specified): ±0.010 [0.25] 0.010 [0.25] TYP 0.630 [16.0] MAX 90 0.020 [0.51] 10 🔿 80 110 12 ( 13 ( **O**3 0.930 [23.62] MAX 0.700±0.020 [17.78±0.510] \_0.155 [3.94] MAX 14X 0.100 [2.54] 0.100 [2.54] MIN



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

	Table 1 - Group A Inspection				
Level	" <b>C</b> " **	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	" <b>C</b> " **	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	

<sup>&</sup>quot;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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