## MIL-STD-1553 Transformers

Stacked Dual THT non-QPL Interface Transformers Ruggedized





Operating Temp.	Prefix
0° to 70°C	STQC
-40 $^{\circ}$ to +85 $^{\circ}$ C	STQN
-55 $^{\circ}$ to +125 $^{\circ}$ C	STQ

Summary Performance Specifications			
Impedance	(see table below)		
Droop	£ 20%		
Overshoot	±1V MAX		
Common Mode Rejection (CMR)	£ 45dB		
Frequency Range (no load)	75kHz to 1MHz		
Operating Temperature Range	(see table above)		
Weight	£ 5 grams		
Insualtion Resistance (MIN)	10K MΩ @ 250Vdc		
DielectricWithstandingVoltage	100Vrms		

These non-QPL interface transformers are built and tested in ISO 9001 approved facilities. They conform to all electrical and physical parameters of MIL-PRF-21038/27. Choose one of three operating temperature ranges including 0° to  $+70^{\circ}$ C,  $-40^{\circ}$  to  $+85^{\circ}$ C, or  $-55^{\circ}$  to  $+125^{\circ}$ C.

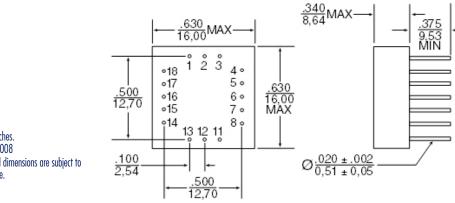
1-3 (11-13) = 1.04-8 (14-18) = 3.5

- Dual ratio, dual interface (see schematic)
- Through-the-board package
- Moisture Sensitivity Level: 1
- For use in MIL-STD-1553 applications
- Vertically stacked for minimum XY area
- Performance to MIL-PRF-21038 requirements
- Built in ISO 9001 facility
- Applicable specifications:
  - MIL-STD-1553B
  - MIL-STD-202
  - **MIL-PRF-21038**
  - ISO 9001

Trequency Kunge (no louu)				
Operating Temperature Range	(see table above)		3(13) O-	
Weight	£ 5 grams	£ 5 grams		07 (17)
Insualtion Resistance (MIN)	10K MΩ @ 250Vdc		Schematic 2(12) O-	3
DielectricWithstandingVoltage	100Vrms		1(11) O	<b>●</b>    <b>●</b> O4 (14)
		Characteristics		
Part Number 1	Termimals	Ratio (±3%)	RDC ( $\Omega$ MAX)	Impedance (Q MIN)
(XXXX)1553-1	1-3 : 4-8 (11-13 : 14-18) 1-3 : 5-7 (11-13 : 15-17)	1CT:1CT 1CT:.707CT	1-3 (11-13) = 3.5 4-8 (14-18) = 3.0	(1-3 & 11-13) 4,000
(XXXX)1553-2	1-3 : 4-8 (11-13 : 14-18) 1-3 : 5-7 (11-13 : 15-17)	1.4CT:1CT 2CT:1CT	1-3 (11-13) = 3.0 4-8 (14-18) = 3.0	(1-3 & 11-13) 7,200
(XXXX)1553-3	1-3 : 4-8 (11-13 : 14-18) 1-3 : 5-7 (11-13 : 15-17)	1.25CT:1CT 1.66CT:1CT	$\begin{array}{r} 1-3  (11-13) = 3.2 \\ 4-8  (14-18) = 3.0 \end{array}$	(1-3 & 11-13) 4,000
(XXXX)1553-5 <sup>2</sup>	1-3 : 4-8 (11-13 : 14-18) 1-3 : 5-7 (11-13 : 15-17)	1CT:2.12CT 1CT:1.5CT	1-3 (11-13) = 1.0 4-8 (14-18) = 3.5	(4-8 & 14-18) 4,000

NOTE: 1. Refer to prefix table (above) to select temperature range. 2. Designed for transceivers utilizing a single supply voltage (+5V).

1-3 : 4-8 (11-13 : 14-18) 1-3 : 5-7 (11-13 : 15-17)



1CT:2.5CT 1CT:1.79CT

Notes:

(XXXX)1553-45<sup>2</sup>

- 1. All dimensions: in inches.
- 2. Tolerances: .xx = +.008
- 3. All specifications and dimensions are subject to change without notice.



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(4-8 & 14-18) 4,000

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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 and 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 and 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 1200	34	19		
1,201 to 3,200	42	23		
3,201 to 10,000	50	29		

\*\*NOTE: 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.

#### **For More Information**

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### **Global Sales Representatives and Locations:**

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