

non-QPL MIL-STD-1553 INTERFACE TRANSFORMERS

Pulse Specialty Components

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For QPL pulse transformers....

In addition to the non-QPL transformers described in this catalog, Pulse Specialty Components offers many transformer models qualified for QPL/military applications. These include:

- surface-mount or through-the-board
- single- or dual-ratio

For more information, ask for our catalog entitled
“*QPL MIL-STD-1553 INTERFACE TRANSFORMERS*”



As part of Pulse, Specialty Components has access to offshore manufacturing, state-of-the-art packaging technology and worldwide purchasing power to provide extremely cost-effective products for customers. Many low-power pulse transformer products have been developed in response to the Perry Initiative and its COTs mandate.

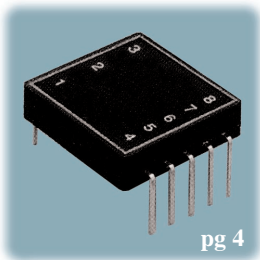
The products shown on the next page and described in this catalog have performance and electrical characteristics compliant with MIL-PRF-21038/27 but have been tailored in response to the demands of today's marketplace....

- COTs models for reduced-requirement military applications (non-QPL) and reduced cost
- Low profile for reduced board-stacking height
- Single- ratio and dual-ratio
- Single interface and dual interface
- Vertically stacked dual interface
- 0-70^oC or -40 to +85^oC or -55 to +125^oC
- Hermetically sealed for extreme environments

Browse the next page to find and select the product that meets your non-QPL requirements. Request our catalog on QPL MIL-PRF-21038 transformers for applications calling for QPL components.

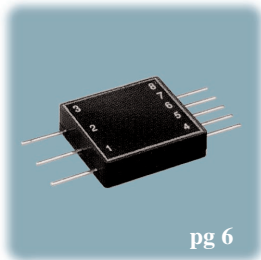


Contents



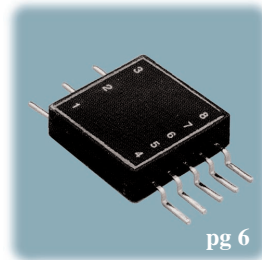
pg 4

- low profile
- dual ratio
- through the board



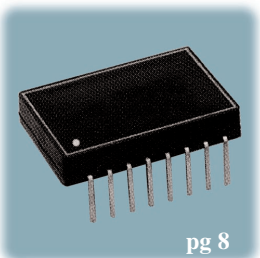
pg 6

- low profile
- dual ratio
- surface-mount flat pack



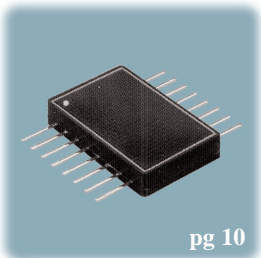
pg 6

- low profile
- dual ratio
- surface-mount gull wing



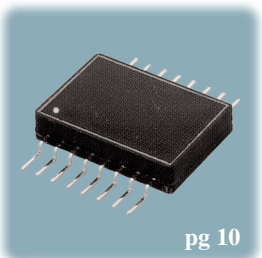
pg 8

- dual interface
- low profile
- dual ratio
- through the board



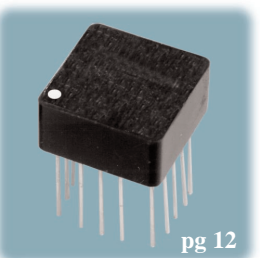
pg 10

- dual interface
- low profile
- dual ratio
- surface-mount flat pack



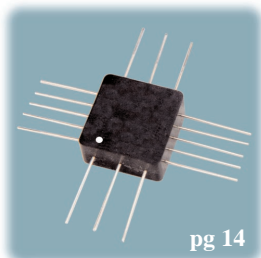
pg 10

- dual interface
- low profile
- dual ratio
- surface-mount gull wing



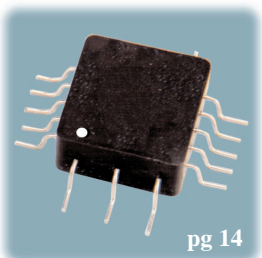
pg 12

- dual interface
- stacked
- dual ratio
- through the board



pg 14

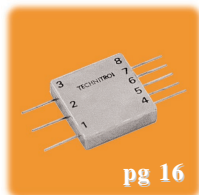
- dual interface
- stacked
- dual ratio
- surface-mount flat pack



pg 14

- dual interface
- stacked
- dual ratio
- surface-mount gull wing

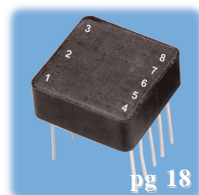
Hermetically Sealed



pg 16


- single interface
- dual ratio
- surface-mount flat pack

Value Series -- COTS



pg 18

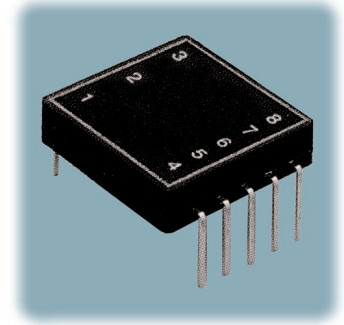
- standard profile
- dual ratio
- through the board

 The package shown here as "Value Series COTS" is also available fully qualified to MIL-PRF-21038/27 requirements.



Through the board low profile MIL-PRF-21038 Interface Transformers

These non-QPL interface transformers are built and tested in ISO 9002 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° C, -40° to +85° C, or -55° to +125° C.



- dual ratio, single interface (see schematic)
- through the board package
- for use in MIL-STD-1553 applications
- low profile, 0.155 in. height
- performance to MIL-PRF-21038/27 requirements
- built in ISO 9002 facility

| operating temp. | prefix |
|-----------------|--------|
| 0° to 70°C | TLC |
| -40° to +85°C | TLN |
| -55° to +125°C | TL |

APPLICABLE SPECIFICATIONS

- MIL-STD-1553B
- MIL-STD-202
- MIL-T-10727
- MIL-PRF-21038
- ISO 9002

SUMMARY PERFORMANCE SPECIFICATIONS

| | |
|--------------------------------------|-----------------------|
| Impedance..... | see table, next page |
| Droop..... | ≤ 20% |
| Overshoot..... | ± 1V max |
| Common mode rejection (CMR)..... | ≥ 45 dB |
| Frequency range (no load)..... | 75 kHz to 1MHz |
| Operating temperature range..... | see table, next page |
| Weight..... | ≤ 5 grams |
| Insulation resistance (min)..... | 10K megohms @ 250 Vdc |
| Dielectric withstanding voltage..... | 100 Vrms |



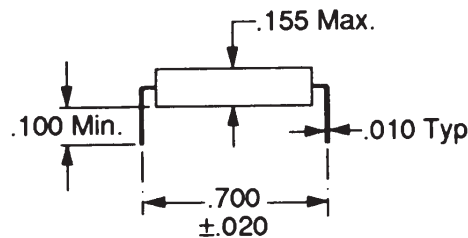
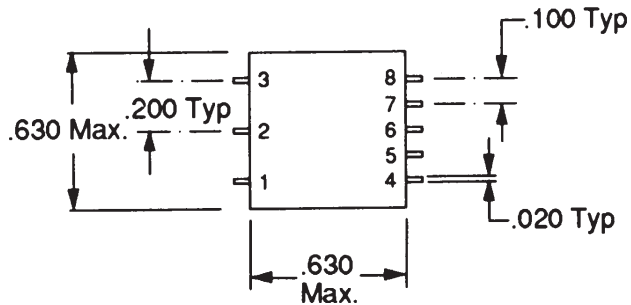
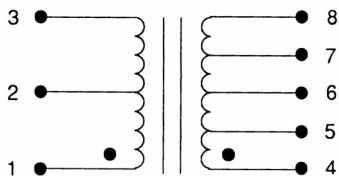
CHARACTERISTICS

| PART NO. | TERMINALS | RATIO ($\pm 3\%$) | RDC (ohms) MAX. | IMPEDANCE (ohms) MIN. |
|---------------------------|--------------------|--------------------------|------------------------|-----------------------|
| (XXX)1553-1 ¹ | 1-3:4-8 1-3:5-7 | 1CT:1CT 1CT:.707CT | 1-3 = 3.0 4-8 = 3.0 | (1-3) 4,000 |
| (XXX)1553-2 | 1-3:4-8 1-3:5-7 | 1.4CT:1CT 2CT:1CT | 1-3 = 3.5 4-8 = 3.0 | (1-3) 7,200 |
| (XXX)1553-3 | 1-3:4-8 1-3:5-7 | 1.25CT:1CT 1.66CT:1CT | 1-3 = 3.2 4-8 = 3.0 | (1-3) 4,000 |
| (XXX)1553-5 ² | 1-3:4-8 1-3:5-7 | 1CT:2.12CT 1CT:1.5CT | 1-3 = 1.0 4-8 = 3.5 | (4-8) 4,000 |
| (XXX)1553-45 ² | 1-3:4-8 1-3:5-7 | 1CT:2.5CT 1CT:1.79CT | 1-3 = 1.0 4-8 = 3.5 | (4-8) 4,000 |

- low profile
- dual ratio
- through the board

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

| operating temp. | prefix |
|-----------------|--------|
| 0° to 70°C | TLC |
| -40° to +85°C | TLN |
| -55° to +125°C | TL |



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

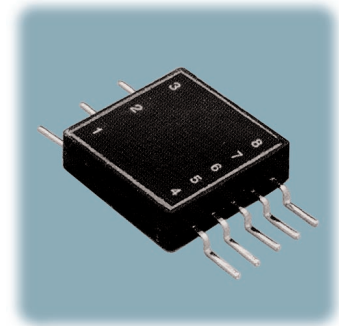


Surface mount low profile MIL-PRF-21038 Interface Transformers

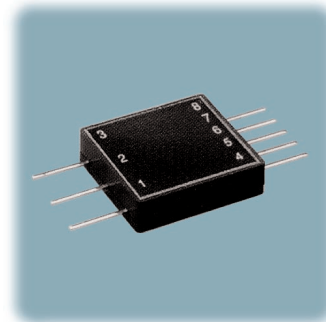
These non-QPL interface transformers are built and tested in ISO 9002 approved facilities. They conform to all electrical and physical parameters of MIL-PRF-21038/27. Choose one of three operating temperature ranges including 0° to +70° C, -40° to +85° C, or -55° to +125° C.

- dual ratio, single interface (see schematic)
- surface mount; gull wing or flat pack
- for use in MIL-STD-1553 applications
- low profile, 0.155 in. height
- performance to MIL-PRF-21038/27 requirements
- built in ISO 9002 facility

| operating temp. | gull wing package | flat pack |
|-----------------|-------------------|-----------|
| 0° to 70°C | GLC | FLC |
| -40° to +85°C | GLN | FLN |
| -55° to +125°C | GL | FL |



gull wing package



flat pack

APPLICABLE SPECIFICATIONS

- MIL-STD-1553B
- MIL-STD-202
- MIL-T-10727
- MIL-PRF-21038
- ISO 9002

SUMMARY PERFORMANCE SPECIFICATIONS

| | |
|--------------------------------------|-----------------------|
| Impedance..... | see table, next page |
| Droop..... | ≤ 20% |
| Overshoot..... | ± 1V max |
| Common mode rejection (CMR)..... | ≥ 45 dB |
| Frequency range (no load)..... | 75 kHz to 1MHz |
| Operating temperature range..... | see table, next page |
| Weight..... | ≤ 5 grams |
| Insulation resistance (min)..... | 10K megohms @ 250 Vdc |
| Dielectric withstanding voltage..... | 100 Vrms |



CHARACTERISTICS

| PART NO. | TERMINALS | RATIO (±3%) | RDC (ohms) MAX. | IMPEDANCE (ohms) MIN. |
|---------------------------|--------------------|--------------------------|------------------------|-----------------------|
| (XXX1553-1) ¹ | 1-3:4-8 1-3:5-7 | 1CT:1CT 1CT:.707CT | 1-3 = 3.0 4-8 = 3.0 | (1-3) 4,000 |
| (XXX1553-2) | 1-3:4-8 1-3:5-7 | 1.4CT:1CT 2CT:1CT | 1-3 = 3.5 4-8 = 3.0 | (1-3) 7,200 |
| (XXX1553-3) | 1-3:4-8 1-3:5-7 | 1.25CT:1CT 1.66CT:1CT | 1-3 = 3.2 4-8 = 3.0 | (1-3) 4,000 |
| (XXX1553-5) ² | 1-3:4-8 1-3:5-7 | 1CT:2.12CT 1CT:1.5CT | 1-3 = 1.0 4-8 = 3.5 | (4-8) 4,000 |
| (XXX1553-45) ² | 1-3:4-8 1-3:5-7 | 1CT:2.5CT 1CT:1.79CT | 1-3 = 1.0 4-8 = 3.5 | (4-8) 4,000 |

- low profile
- dual ratio
- surface-mount

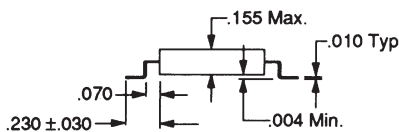
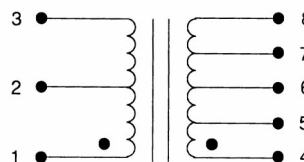
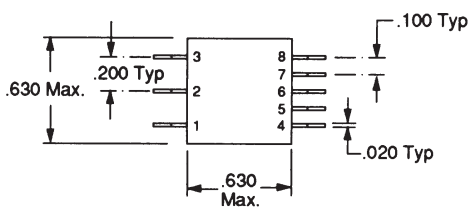
¹ Refer to prefix table (below) to select temperature range and package.

² Designed for transceivers utilizing a single supply voltage (+5V).

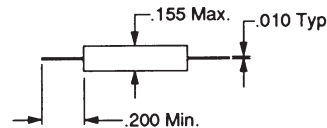
| operating temp. | gull wing package | flat pack |
|-----------------|-------------------|-----------|
| 0° to 70°C | GLC | FLC |
| -40° to +85°C | GLN | FLN |
| -55° to +125°C | GL | FL |

Notes:

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



GL(X)1553-(X)

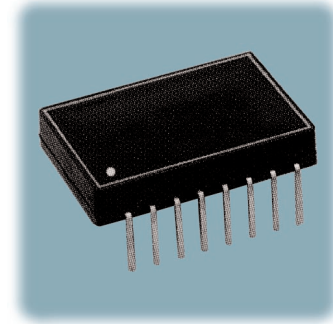


FL(X)1553-(X)



Through the board dual low profile MIL-PRF-21038 Interface Transformers

These non-QPL interface transformers are built and tested in ISO 9002 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° C, -40° to +85° C, or -55° to +125° C.



- dual ratio, dual interface (see schematic)
- through the board package
- for use in MIL-STD-1553 applications
- low profile, 0.155 in. height
- performance to MIL-PRF-21038/27 requirements
- built in ISO 9002 facility

| operating temp. | prefix |
|-----------------|--------|
| 0° to 70°C | DTLC |
| -40° to +85°C | DTLN |
| -55° to +125°C | DTL |

APPLICABLE SPECIFICATIONS

- MIL-STD-1553B
- MIL-STD-202
- MIL-T-10727
- MIL-PRF-21038
- ISO 9002

SUMMARY PERFORMANCE SPECIFICATIONS

| | |
|--------------------------------------|-----------------------|
| Impedance..... | see table, next page |
| Droop..... | ≤ 20% |
| Overshoot..... | ± 1V max |
| Common mode rejection (CMR)..... | ≥ 45 dB |
| Frequency range (no load)..... | 75 kHz to 1MHz |
| Operating temperature range..... | see table, next page |
| Weight..... | ≤ 5 grams |
| Insulation resistance (min)..... | 10K megohms @ 250 Vdc |
| Dielectric withstanding voltage..... | 100 Vrms |



CHARACTERISTICS

| PART NO. | TERMINALS | RATIO (±3%) | RDC (ohms) MAX. | IMPEDANCE (ohms) MI |
|----------------------------|------------------------|-------------|-------------------------------------|------------------------|
| (XXXX)1553-1 ¹ | 1-3:16-13 5-7:12-9 | 1CT:1CT | 1-3, 5-7 = 3.0 16-13, 12-9 = 3.0 | (1-3, 5-7) 4,000 |
| | 1-3:15-14 5-7:11-10 | 1CT:.707CT | | |
| (XXXX)1553-2 | 1-3:16-13 5-7:12-9 | 1.4CT:1CT | 1-3, 5-7 = 3.5 16-13, 12-9 = 3.0 | (1-3, 5-7) 7,200 |
| | 1-3:15-14 5-7:11-10 | 2CT:1CT | | |
| (XXXX)1553-3 | 1-3:16-13 5-7:12-9 | 1.25CT:1CT | 1-3, 5-7 = 3.2 16-13, 12-9 = 3.0 | (1-3, 5-7) 4,000 |
| | 1-3:15-14 5-7:11-10 | 1.66CT:1CT | | |
| (XXXX)1553-5 ² | 1-3:16-13 5-7:12-9 | 1CT:2.12CT | 1-3, 5-7 = 1.0 16-13, 12-9 = 3.5 | (16-13, 12-9) 4,000 |
| | 1-3:15-14 5-7:11-10 | 1CT:1.5CT | | |
| (XXXX)1553-45 ² | 1-3:16-13 5-7:12-9 | 1CT:2.5CT | 1-3, 5-7 = 1.0 16-13, 12-9 = 3.5 | (16-13, 12-9) 4,000 |
| | 1-3:15-14 5-7:11-10 | 1CT:1.79CT | | |

- dual interface
- low profile
- dual ratio
- through the board

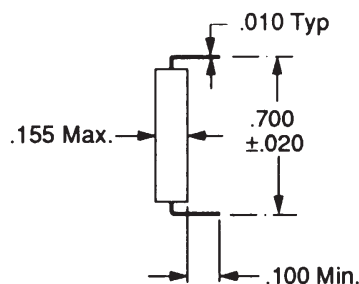
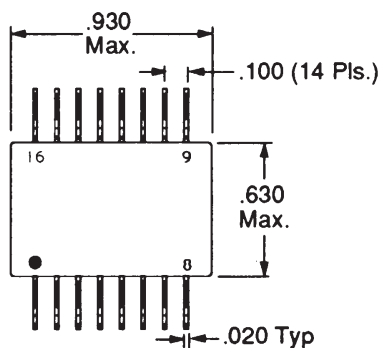
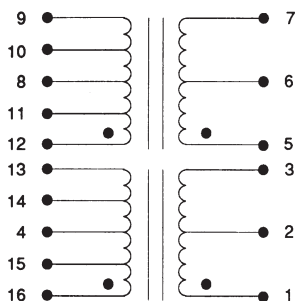
¹ Refer to prefix table (below) to select temperature range.

² Designed for transceivers utilizing a single supply voltage (+5V).

| operating temp. | prefix |
|-----------------|--------|
| 0° to 70°C | DTLC |
| -40° to +85°C | DTLN |
| -55° to +125°C | DTL |

Notes:

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

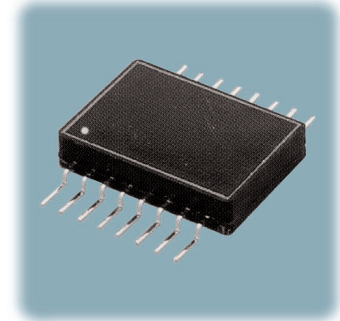




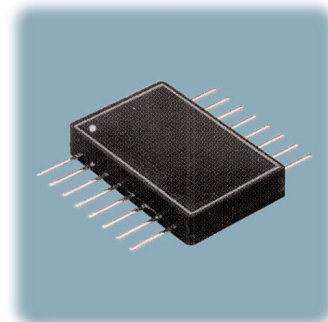
Surface mount dual low profile MIL-PRF-21038 Interface Transformers

These non-QPL interface transformers are built and tested in ISO 9002 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° C, -40° to +85° C, or -55° to +125° C.

- dual ratio, dual interface (see schematic)
- for use in MIL-STD-1553 applications
- low profile, 0.155 in. height
- dual ratio in a single package
- performance to MIL-PRF-21038/27 requirements
- built in ISO 9002 facility
- three available operating temperatures; two packages:



gull wing package



flat pack

| operating temp. | gull wing package | flat pack |
|-----------------|-------------------|-----------|
| 0° to 70°C | DGLC | DFLC |
| -40° to +85°C | DGLN | DFLN |
| -55° to +125°C | DGL | DFL |

APPLICABLE SPECIFICATIONS

- MIL-STD-1553B
- MIL-STD-202
- MIL-T-10727
- MIL-PRF-21038
- ISO 9002

SUMMARY PERFORMANCE SPECIFICATIONS

| | |
|--------------------------------------|-----------------------|
| Impedance..... | see table, next page |
| Droop..... | ≤ 20% |
| Overshoot..... | ± 1V max |
| Common mode rejection (CMR)..... | ≥ 45 dB |
| Frequency range (no load)..... | 75 kHz to 1MHz |
| Operating temperature range..... | see table, next page |
| Weight..... | ≤ 5 grams |
| Insulation resistance (min)..... | 10K megohms @ 250 Vdc |
| Dielectric withstanding voltage..... | 100 Vrms |

CHARACTERISTICS

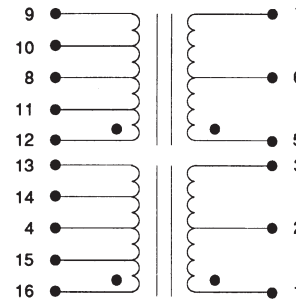
| PART NO. | TERMINALS | RATIO (±3%) | RDC (ohms) MAX. | IMPEDANCE (ohms) MIN. |
|----------------------------|------------------------|-------------|-------------------------------------|------------------------|
| (XXXX1553-1) ¹ | 1-3:16-13 5-7:12-9 | 1CT:1CT | 1-3, 5-7 = 3.0 16-13, 12-9 = 3.0 | (1-3, 5-9) 4,000 |
| | 1-3:15-14 5-7:11-10 | 1CT:.707CT | | |
| (XXXX1553-2) | 1-3:16-13 5-7:12-9 | 1.4CT:1CT | 1-3, 5-7 = 3.5 16-13, 12-9 = 3.0 | (1-3, 5-7) 7,200 |
| | 1-3:15-14 5-7:11-10 | 2CT:1CT | | |
| (XXXX1553-3) | 1-3:16-13 5-7:12-9 | 1.25CT:1CT | 1-3, 5-7 = 3.2 16-13, 12-9 = 3.0 | (1-3, 5-7) 4,000 |
| | 1-3:15-14 5-7:11-10 | 1.66CT:1CT | | |
| (XXXX1553-5) ² | 1-3:16-13 5-7:12-9 | 1CT:2.12CT | 1-3, 5-7 = 1.0 16-13, 12-9 = 3.5 | (16-13, 12-9) 4,000 |
| | 1-3:15-14 5-7:11-10 | 1CT:1.5CT | | |
| (XXXX1553-45) ² | 1-3:16-13 5-7:12-9 | 1CT:2.5CT | 1-3, 5-7 = 1.0 16-13, 12-9 = 3.5 | (16-13, 12-9) 4,000 |
| | 1-3:15-14 5-7:11-10 | 1CT:1.79CT | | |

- dual interface
- low profile
- dual ratio
- surface-mount

¹ Refer to prefix table (below) to select temperature range and package.

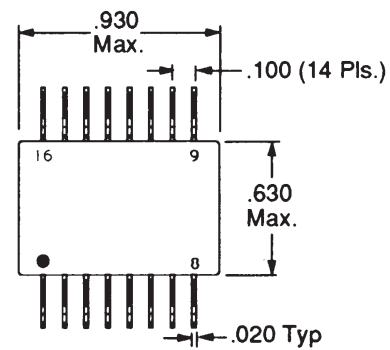
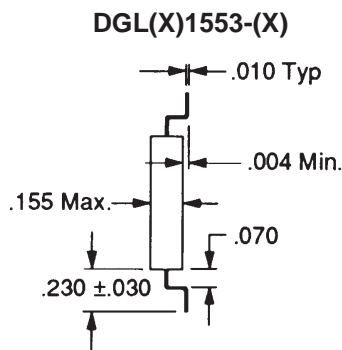
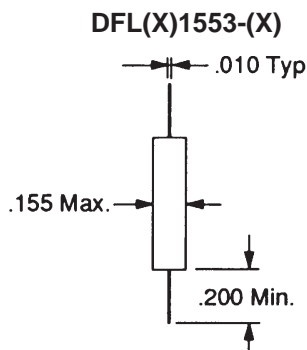
² Designed for transceivers utilizing a single supply voltage (+5V).

| operating temp. | gull wing package | flat pack |
|-----------------|-------------------|-----------|
| 0° to 70°C | DGLC | DFLC |
| -40° to +85°C | DGLN | DFLN |
| -55° to +125°C | DGL | DFL |



Notes:

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

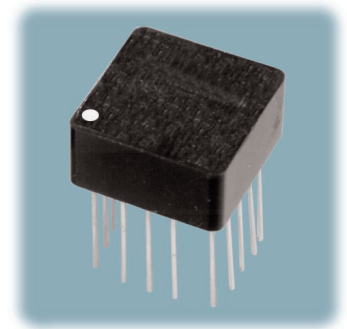




Through the board dual stacked MIL-PRF-21038 Interface Transformers

These non-QPL interface transformers are built and tested in ISO 9002 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° C, -40° to +85° C, or -55° to +125° C.

- dual ratio, dual interface (see schematic)
- through the board package
- for use in MIL-STD-1553 applications
- vertically stacked for minimum XY area
- performance to MIL-PRF-21038/27 requirements
- built in ISO 9002 facility



| operating temp. | prefix |
|-----------------|--------|
| 0° to 70°C | STQC |
| -40° to +85°C | STQN |
| -55° to +125°C | STQ |

APPLICABLE SPECIFICATIONS

- MIL-STD-1553B
- MIL-STD-202
- MIL-T-10727
- MIL-PRF-21038
- ISO 9002

SUMMARY PERFORMANCE SPECIFICATIONS

| | |
|--------------------------------------|-----------------------|
| Impedance..... | see table, next page |
| Droop..... | ≤ 20% |
| Overshoot..... | ± 1V max |
| Common mode rejection (CMR)..... | ≥ 45 dB |
| Frequency range (no load)..... | 75 kHz to 1MHz |
| Operating temperature range..... | see table, next page |
| Weight..... | ≤ 5 grams |
| Insulation resistance (min)..... | 10K megohms @ 250 Vdc |
| Dielectric withstanding voltage..... | 100 Vrms |



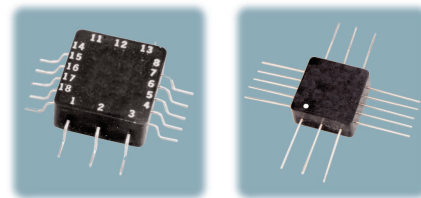
CHARACTERISTICS

| PART NO. | TERMINALS | RATIO (±3%) | RDC (ohms) MAX | IMPEDANCE (ohms) MIN |
|----------------------------|--|--------------------------|------------------------------------|------------------------|
| (XXXX)1553-1 ¹ | 1-3:4-8 (11-13:14-18) 1-3:5-7 (11-13:15-17) | 1CT:1CT 1.41CT:1CT | 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 | 1-3 (11-13) 3.2 4-8 (14-18) 3.0 | (1-3 & 11-13) 4,000 |
| (XXXX)1553-5 ² | 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 |
| (XXXX)1553-45 ² | 1-3:4-8 (11-13:14-18) 1-3:5-7 (11-13:15-17) | 1CT:2.5CT 1CT:1.79CT | 1-3 (11-13) 1.0 4-8 (14-18) 3.5 | (4-8 & 14-18) 4,000 |

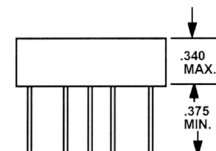
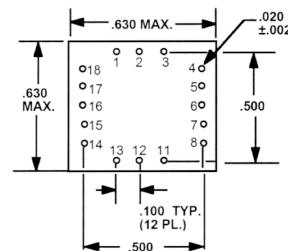
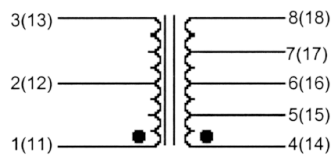
- dual interface
- stacked
- dual ratio
- through the board

- ¹ Refer to prefix table (below) to select temperature range and package.
² Designed for transceivers utilizing a single supply voltage (+5V).

| operating temp. | prefix |
|-----------------|--------|
| 0° to 70°C | STQC |
| -40° to +85°C | STQN |
| -55° to +125°C | STQ |



Also available in gull wing and flat pack configurations for surface mounting

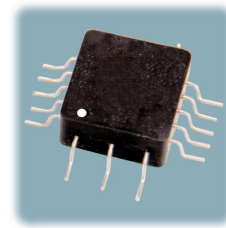


- Notes:**
1. All dimensions are in inches.
 2. Tolerances: .xx = +.008
 3. All specifications and dimensions are subject to change without notice.

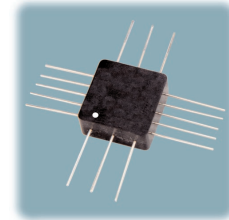
Surface mount dual stacked MIL-PRF-21038 Interface Transformers

These non-QPL interface transformers are built and tested in ISO 9002 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° C, -40° to +85° C, or -55° to +125° C.

- dual ratio, dual interface (see schematic)
- surface mount packages
- for use in MIL-STD-1553 applications
- vertically stacked for minimum XY area
- performance to MIL-PRF-21038/27 requirements
- built in ISO 9002 facility



gull wing package



flat pack

| operating temp. | gull wing package | flat pack |
|-----------------|-------------------|-----------|
| 0° to 70°C | SGQC | SFQC |
| -40° to +85°C | SGQN | SFQN |
| -55° to +125°C | SGQ | SFQ |

APPLICABLE SPECIFICATIONS

- MIL-STD-1553B
- MIL-STD-202
- MIL-T-10727
- MIL-PRF-21038
- ISO 9002

SUMMARY PERFORMANCE SPECIFICATIONS

| | |
|--------------------------------------|-----------------------|
| Impedance..... | see table, next page |
| Droop..... | ≤ 20% |
| Overshoot..... | ± 1V max |
| Common mode rejection (CMR)..... | ≥ 45 dB |
| Frequency range (no load)..... | 75 kHz to 1MHz |
| Operating temperature range..... | see table, next page |
| Weight..... | ≤ 5 grams |
| Insulation resistance (min)..... | 10K megohms @ 250 Vdc |
| Dielectric withstanding voltage..... | 100 Vrms |

CHARACTERISTICS

| PART NO. | TERMINALS | RATIO (±3%) | RDC (ohms) MAX | IMPEDANCE (ohms) MIN |
|----------------------------|--|--------------------------|------------------------------------|------------------------|
| (XXXX)1553-1 ¹ | 1-3:4-8 (11-13:14-18) 1-3:5-7 (11-13:15-17) | 1CT:1CT 1.41CT:1CT | 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 | 1-3 (11-13) 3.2 4-8 (14-18) 3.0 | (1-3 & 11-13) 4,000 |
| (XXXX)1553-5 ² | 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 |
| (XXXX)1553-45 ² | 1-3:4-8 (11-13:14-18) 1-3:5-7 (11-13:15-17) | 1CT:2.5CT 1CT:1.79CT | 1-3 (11-13) 1.0 4-8 (14-18) 3.5 | (4-8 & 14-18) 4,000 |

- dual interface
- stacked
- dual ratio
- surface mount

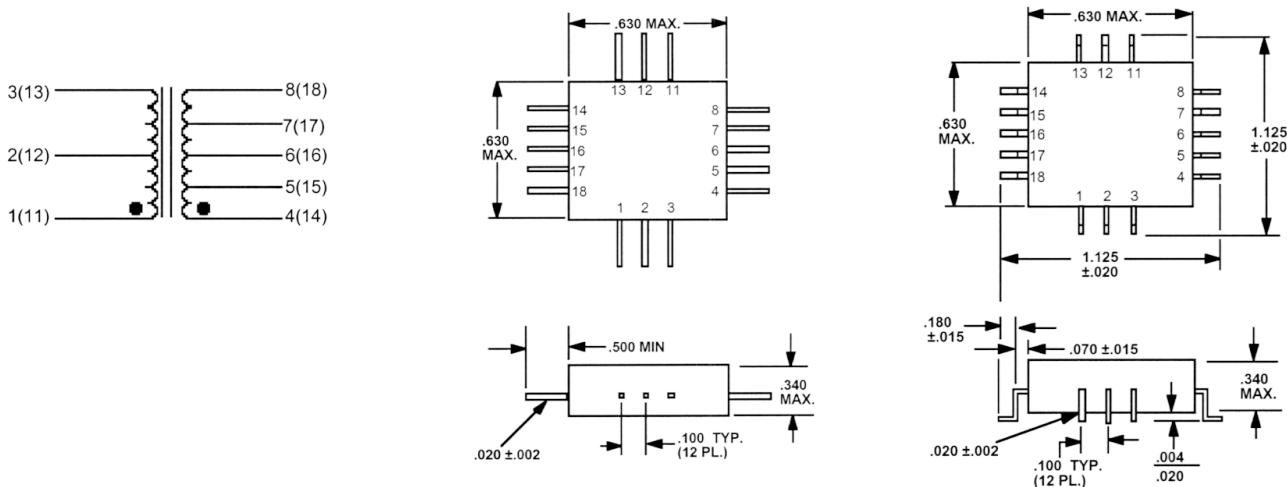
¹ Refer to prefix table (below) to select temperature range and package.

² Designed for transceivers utilizing a single supply voltage (+5V).

| operating temp. | gull wing package | flat pack |
|-----------------|-------------------|-----------|
| 0° to 70°C | SGQC | SFQC |
| -40° to +85°C | SGQN | SFQN |
| -55° to +125°C | SGQ | SFQ |

Notes:

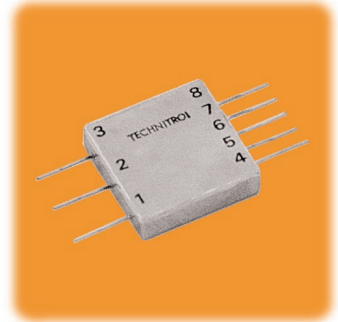
1. All dimensions are in inches.
2. Tolerances: .xx = +.008
3. All specifications and dimensions are subject to change without notice.





Surface mount hermetically sealed MIL-PRF-21038 Interface Transformers

These hermetically sealed non-QPL interface transformers conform to all electrical and physical parameters of MIL-PRF-21038/27 and provide performance as required over -55° to +125°. Built and tested in ISO 9002 approved facilities. Flat pack surface mount package.



- dual ratio, single interface
- for use in MIL-STD-1553 applications
- performance to MIL-PRF-21038/27 requirements
- built in ISO 9002 facility
- -55° to +125° C operating temperatures

APPLICABLE SPECIFICATIONS

- MIL-STD-1553B
- MIL-STD-202
- MIL-I-45208
- MIL-T-10727
- MIL-PRF-21038
- ISO 9002

SUMMARY PERFORMANCE SPECIFICATIONS

| | |
|--------------------------------------|-----------------------|
| Impedance..... | see table, next page |
| Droop..... | ≤ 20% |
| Overshoot..... | ± 1V max |
| Common mode rejection (CMR)..... | ≥ 45 dB |
| Frequency range (no load)..... | 75 kHz to 1MHz |
| Operating temperature range..... | -55° to +125°C |
| Weight..... | ≤ 5 grams |
| Insulation resistance (min)..... | 10K megohms @ 250 Vdc |
| Dielectric withstanding voltage..... | 100 Vrms |

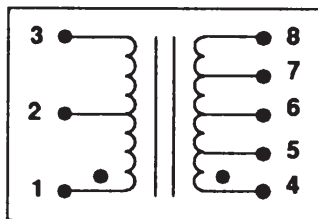


CHARACTERISTICS

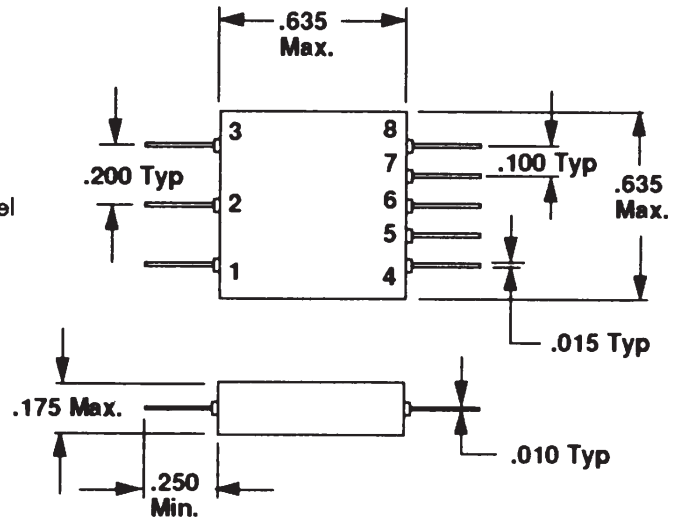
| PART NO. | TERMINALS | RATIO ($\pm 3\%$) | RDC (ohms) MAX | IMPEDANCE (ohms) MIN |
|-----------|--------------------|--------------------------|--------------------|----------------------|
| H1553-1 | 1-3:4-8 1-3:5-7 | 1CT:1CT 1CT:.707CT | 1-3 3.0 4-8 3.0 | (1-3) 4000 |
| H1553-2 | 1-3:4-8 1-3:5-7 | 1.4CT:1CT 2CT:1CT | 1-3 3.5 4-8 3.0 | (1-3) 7,200 |
| H1553-3 | 1-3:4-8 1-3:5-7 | 1.25CT:1CT 1.66CT:1CT | 1-3 3.2 4-8 3.0 | (1-3) 4000 |
| H1553-5* | 1-3:4-8 1-3:5-7 | 1CT:2.12CT 1CT:1.5CT | 1-3 1.0 4-8 3.5 | (4-8) 4,000 |
| H1553-45* | 1-3:4-8 1-3:5-7 | 1CT:2.50CT 1CT:1.79CT | 1-3 1.0 4-8 3.5 | (4-8) 4,000 |

- hermetically sealed
- single interface
- dual ratio
- surface-mount flat pack

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



Note: Case and cover are nickel plated Kovar. Leads are nickel-plated Kovar. Other lead finishes available.



Notes:

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



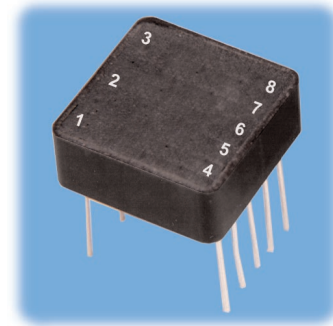
Value Series (COTS) through the board MIL-PRF-21038 Interface Transformers

These non-QPL interface transformers are built and tested in ISO 9002 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° C, -40° to +85° C, or -55° to +125° C.

- dual ratio, single interface (see schematic)
- through the board package
- for use in MIL-STD-1553 applications
- standard height, 0.250 in.
- performance to MIL-PRF-21038/27 requirements
- built in ISO 9002 facility



The transformer package shown on this page is also available fully qualified to MIL-PRF-21038/27 requirements.



APPLICABLE SPECIFICATIONS

- MIL-STD-1553B
- MIL-STD-202
- MIL-T-10727
- MIL-PRF-21038
- ISO 9002

| operating temp. | prefix |
|-----------------|--------|
| 0° to 70°C | C |
| -40° to +85°C | N |
| -55° to +125°C | TQ |

SUMMARY PERFORMANCE SPECIFICATIONS

| | |
|--------------------------------------|-----------------------|
| Impedance..... | see table, next page |
| Droop..... | ≤ 20% |
| Overshoot..... | ± 1V max |
| Common mode rejection (CMR)..... | ≥ 45 dB |
| Frequency range (no load)..... | 75 kHz to 1MHz |
| Operating temperature range..... | see table, next page |
| Weight..... | ≤ 5 grams |
| Insulation resistance (min)..... | 10K megohms @ 250 Vdc |
| Dielectric withstanding voltage..... | 100 Vrms |



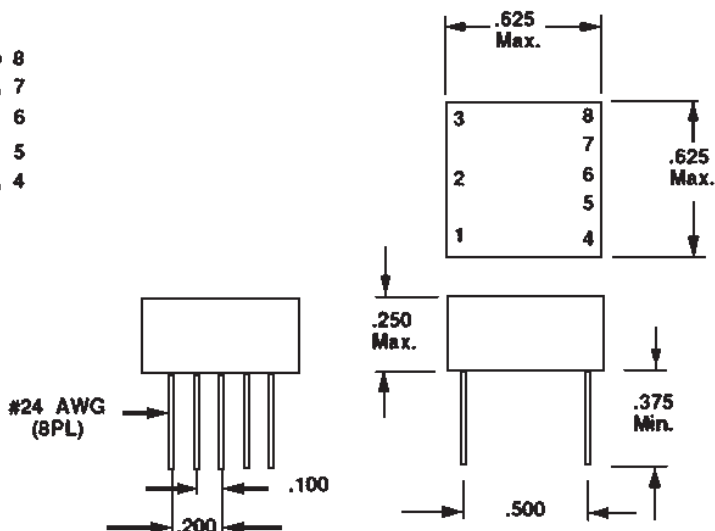
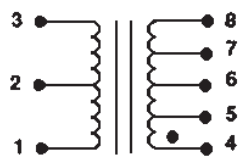
CHARACTERISTICS

| PART NO. | TERMINALS | RATIO ($\pm 3\%$) | RDC (ohms) MAX. | IMPEDANCE (ohms) MIN. |
|-------------------------|--------------------|--------------------------|------------------------|-----------------------|
| (X)1553-1 ¹ | 1-3:4-8 1-3:5-7 | 1CT:1CT 1CT:.707CT | 1-3 = 3.0 4-8 = 3.0 | (1-3) 4,000 |
| (X)1553-2 | 1-3:4-8 1-3:5-7 | 1.4CT:1CT 2CT:1CT | 1-3 = 3.5 4-8 = 3.0 | (1-3) 7,200 |
| (X)1553-3 ² | 1-3:4-8 1-3:5-7 | 1.25CT:1CT 1.66CT:1CT | 1-3 = 3.2 4-8 = 3.0 | (1-3) 4,000 |
| (X)1553-5 ² | 1-3:4-8 1-3:5-7 | 1CT:2.12CT 1CT:1.5CT | 1-3 = 1.0 4-8 = 3.5 | (4-8) 4,000 |
| (X)1553-45 ² | 1-3:4-8 1-3:5-7 | 1CT:2.5CT 1CT:1.79CT | 1-3 = 1.0 4-8 = 3.5 | (4-8) 4,000 |

- standard profile
- dual ratio
- through the board

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

| operating temp. | prefix |
|-----------------|--------|
| 0° to 70°C | C |
| -40° to +85°C | N |
| -55° to +125°C | TQ |



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



WARRANTY

Pulse Specialty Components warrants for a period of 90 days from the date of shipment, that under normal use and service, its products will be free from defects in workmanship and material. Pulse Specialty Components' sole responsibility under this warranty is, at its option, to repair or replace, without charge, any defective product or part, or to credit buyer for the purchase price of such defective product, provided:

- 1) Buyer promptly notifies Pulse Specialty Components in writing within the warranty period, and
- 2) The defective product or part is returned to Pulse Specialty Components with transportation charges prepaid by Buyer, and
- 3) Pulse Specialty Components examination of such product shall disclose to its satisfaction that said defect exists and has not been caused by misuse, neglect, improper installation, repair or alteration, or accident.

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