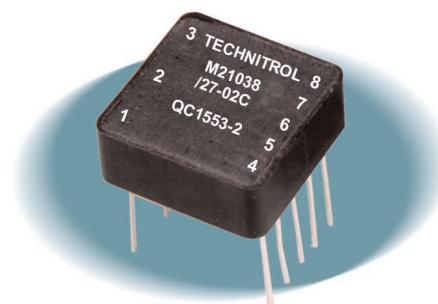


# Through the board MIL-PRF-21038/27 Level C Interface Transformers

- qualified for use in QPL MIL-STD-1553 applications
- dual ratio in a single package
- designed, built, and tested  
to MIL-PRF-21038 Level C\*
- two packages available: Package A without  
standoffs, Package G with standoffs
- built in ISO 9002 facility



## APPLICABLE SPECIFICATIONS

- MIL-STD-1553B
- MIL-STD-202
- MIL-I-45208
- MIL-T-10727
- MIL-PRF-21038/27\*
- ISO 9002

## SUMMARY PERFORMANCE SPECIFICATIONS

|                                      |                       |
|--------------------------------------|-----------------------|
| Impedance.....                       | see table             |
| Droop.....                           | ≤ 20%                 |
| Overshoot.....                       | ± 1V max              |
| Common mode rejection (CMR).....     | ≥ 45 dB               |
| Frequency range (no load).....       | 75 kHz to 1MHz        |
| Operating temperature range.....     | -55°C to 130°C        |
| Weight.....                          | ≤ 5 grams             |
| Insulation resistance (min).....     | 10K megohms @ 250 Vdc |
| Dielectric withstanding voltage..... | 100 Vrms              |

*\*MIL-PRF-21038E (8 July 1998) supersedes MIL-T-21038D (11 May 1979) and establishes three product levels for low power pulse transformers:*

- *Level C - for high reliability commercial/industrial applications;*
- *Level M - for general purpose military applications;*
- *Level T - for high reliability critical military applications.*



## CHARACTERISTICS

| MILITARY DESIGNATION NUMBER | TECHNITROL PART NO. | PACKAGE | HEIGHT (in.) MAX | TERMINALS          | RATIO ( $\pm 3\%$ )      | RDC (ohms) MAX     | IMPEDANCE (ohms) MIN |
|-----------------------------|---------------------|---------|------------------|--------------------|--------------------------|--------------------|----------------------|
| M21038/27-01C               | QC1553-1            | A       | .250             | 1-3:4-8<br>1-3:5-7 | 1CT:1CT<br>1CT:707CT     | 1-3 3.0<br>4-8 3.0 | (1-3)<br>4000        |
| M21038/27-02C               | QC1553-2            | A       | .250             | 1-3:4-8<br>1-3:5-7 | 1.4CT:1CT<br>2CT:1CT     | 1-3 3.5<br>4-8 3.0 | (1-3)<br>7,200       |
| M21038/27-03C               | QC1553-3            | A       | .250             | 1-3:4-8<br>1-3:5-7 | 1.25CT:1CT<br>1.66CT:1CT | 1-3 3.2<br>4-8 3.0 | (1-3)<br>4000        |
| M21038/27-04C               | QC1553-4            | A       | .300             | 1-3:4-8<br>1-3:5-7 | 1CT:2.3CT<br>1CT:3.2CT   | 1-3 1.2<br>5-7 3.0 | (5-7)<br>3000        |
| M21038/27-10C               | QC1553-5*           | A       | .250             | 1-3:4-8<br>1-3:5-7 | 1CT:2.12CT<br>1CT:1.5CT  | 1.3 1.0<br>4-8 3.5 | (4-8)<br>4,000       |
| M21038/27-21C               | QC1553-81           | G       | .275             | 1-3:4-8<br>1-3:5-7 | 1CT:1CT<br>1CT:707CT     | 1-3 3.0<br>4-8 3.0 | (1-3)<br>4,000       |
| M21038/27-22C               | QC1553-82           | G       | .275             | 1-3:4-8<br>1-3:5-7 | 1.4CT:1CT<br>2CT:1CT     | 1-3 3.5<br>4-8 3.0 | (1-3)<br>7,200       |
| M21038/27-23C               | QC1553-83           | G       | .275             | 1-3:4-8<br>1-3:5-7 | 1.25CT:1CT<br>1.66CT:1CT | 1-3 3.2<br>4-8 3.0 | (1-3)<br>4,000       |
| M21038/27-24C               | QC1553-84           | G       | .275             | 1-3:4-8<br>1-3:5-7 | 1CT:2.12CT<br>1CT:1.5CT  | 1-3 1.0<br>4-8 3.5 | (4-8)<br>4,000       |
| M21038/27-25C               | QC1553-85           | G       | .275             | 1-3:4-8<br>1-3:5-7 | 1CT:2.50CT<br>1CT:1.79CT | 1-3 1.0<br>4-8 3.5 | (4-8)<br>4,000       |
| M21038/27-26C               | QC1553-45*          | A       | .250             | 1-3:4-8<br>1-3:5-7 | 1CT:2.50CT<br>1CT:1.79CT | 1-3 1.0<br>4-8 3.5 | (4-8)<br>4,000       |

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

## SCHEMATICS AND DIMENSIONS

