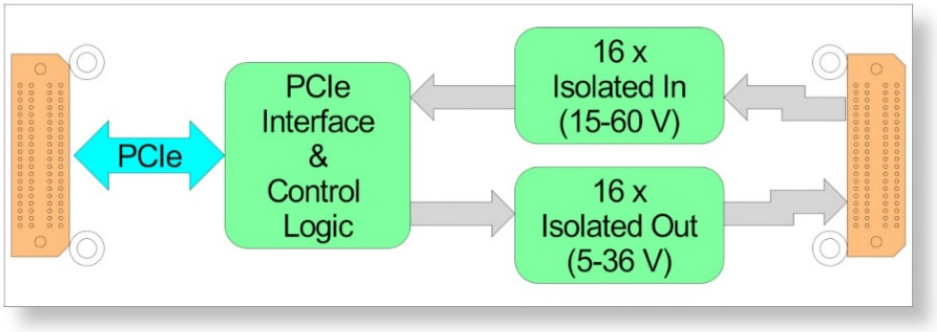
TQMC602 16 Digital In, 16 Digital Out (0.3 A), Isolated



TQMC602

Application Information

The TQMC602 is a standard single-width QMC module conforming to the VITA 93.0 standard for small form factor (SFF) mezzanine modules. It offers 16 digital inputs and 16 digital outputs, all with galvanic isolation.

The output drivers work with 5-36 Volt supply and are capable of driving 0.3 A continuous per channel. All outputs resist short-circuits and overvoltage events up to 65 Volt, and are protected against reverse polarity and thermal overload. Outputs are isolated from the system and in groups of eight against each other. Each group of 8 output can be software configured as high side or low side switch.

A hardware watchdog clears all outputs in case of trigger failure.

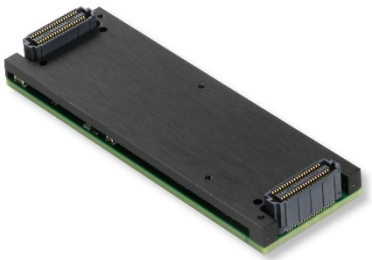
Each input can be operated with signalling voltages of 15-60 Volt.

The individual inputs are separated in groups of 8 sharing a common input ground. These groups are potential free to each other. A high performance input circuit ensures a defined switching point and polarization protection against confusing the pole. All inputs have an electronic debounce circuit with a programmable debounce time.

All inputs can generate an interrupt. The signal edge handling is programmable.

Software Support for different operating systems is available.

The TQMC602 is available as air cooled and conduction cooled variant.



Conduction Cooled QMC

Issue 1.0.1
09.01.2026

TEWS Technologies GmbH
Eggerstedter Weg 14, 25421 Pinneberg, Germany
Phone: +49 (0) 4101 4058 0
info@tews.com www.tews.com

Technical Information

- Form Factor: Standard single QMC module conforming to VITA 93.0
  - Board size: 26 mm x 78.25 mm
- PCI Express 2.1 compliant interface
- IPMI resource: FRU hardware definition information stored in on-board EEPROM
- 16 interrupt generating digital inputs
  - < 150 ns response time
  - 150 ns minimum pulse width
  - Up to 4 Mbps data rate
  - IEC 61131-2 Type 3 input-characteristic
    - Designed for 24 V typical input voltage
    - OFF < 5 Volt
    - ON > 11 Volt
    - 2.3 mA typical input current
    - other input characteristics on request
    - 60 Volt maximum input voltage
  - galvanic isolation of inputs to computer
  - Inputs isolated to each other in groups of eight
  - Protection against high input voltage and confusing the pole up to ±60 V
  - Programmable electronic debounce circuit
- 16 digital outputs
  - High-side switch
  - Low-side switch
  - Up to 4 us update rate
  - 5-36 V supply voltage
  - 0.3 A per output
  - Outputs are isolated from the system and in groups of eight against each other
  - Output short-circuit protection
  - Output overcurrent protection with min. 175 us blanking time
  - Outputs withstand up to 65 V, even during reverse polarity condition
  - Outputs are protected against thermal overload
- Watchdog timer resets all channels in case of trigger failure
- Operating temperature -40 °C to +85 °C
- Mean Time between Failure (MTBF)
  - Contact factory

Order Information

RoHS Compliant

TQMC602-10R-A 16 Digital Inputs, 16 Digital Outputs (0.3 A), air cooled
TQMC602-10R-H 16 Digital Inputs, 16 Digital Outputs (0.3 A), conduction cooled

For the availability of non-RoHS compliant (leaded solder) products please contact TEWS.

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TEWS Technologies GmbH
Eggerstedter Weg 14, 25421 Pinneberg, Germany
Phone: +49 (0) 4101 4058 0
info@tews.com www.tews.com