TRION3-1810x-SUB-8

DEWETRON

- Carrier board for up to 8 TRION sub-modules
- Sampling:
  - TRION3-1810-SUB-8: up to 1 MS/s
  - TRION3-1810M-SUB-8: up to 10 MS/s

TRION3-1810-SUB-8 with TRION-POWER-SUB-dLV-xV, TRION-SUB-dLV-xV and TRION-POWER-SUB-CUR-xA-1B

Module specifications

TRION3-1810x-SUB-8 specifications	
Input channels	Carrier board for up to 8 TRION sub-modules for measuring voltage and current
Sampling rate	TRION3-1810-SUB-8: up to 1 MS/s
	TRION3-1810M-SUB-8: up to 10 MS/s
Input specifications	For detailed information about the input specifications refer to *TRION sub-modules* in the TRION(3) series modules technical reference manual.
Typical channel to channel phase mismatch (Voltage-Voltage, Current-Current, Voltage-Current)	<250 ns (0.1° @ 1 kHz, 0.005° @ 50 Hz)
Typical board-to-board phase mismatch	
– Same board type	<250 ns (0.1° @ 1 kHz, 0.005° @ 50 Hz)
– Different board type	±1 sample or 0.2° @ 1 kHz (whichever is higher)
Low pass filter (-3 dB, digital and analog combined)	TRION3-1810-SUB-8: 1 Hz to 300 kHz freely programmable or OFF
	TRION3-1810M-SUB-8: 1 Hz to 3 MHz freely programmable or OFF
– Filter order and characteristics	2nd, 4th, 6th, 8th Bessel or Butterworth
Filter delay compensation	Up to 15 µs the group delay of the selected filter will be automatically compensated. This works for: – 2nd order filter 15 kHz to 1 MHz – 4th order filter 30 kHz to 1 MHz – 6th order filter 60 kHz to 1 MHz
Onboard data buffer	512 MB
Power consumption	Typ. 8 W, max. 10 W
– with sensor supply	Max. 15 W
Total sensor supply	
– with TRION-POWER-SUB-dLV-xV modules	+9 V: 200 mA / -9 V: 200 mA

Tab. 57: General specifications

INFORMATION

The TRION3-1810M-SUB-8 is mainly recommended for the use with TRION-SUB-CT, TRION-POWER-SUB-dLV-1V and TRION-POWER-SUB-dLV-5V to benefit from the full bandwidth of these sub-modules.

Connection

Connection ports

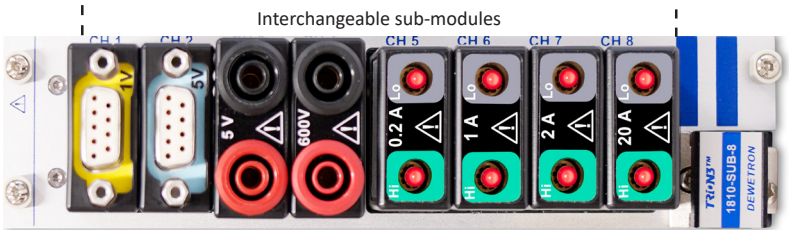

Fig. 156: Connection ports

Interchangeable sub-modules

The TRION3-**1810x**-SUB-8 module provides 8 slots for TRION sub modules, thus allowing a very modular configuration of various voltage and current inputs.

Fig. 157: Available TRION sub-modules

The following TRION-SUB-modules can be combined as desired. For detailed information about the various TRION sub-modules refer to *TRION sub-modules* of the TRION(3) series modules technical reference manual.

Type	Range	Bandwidth	Isolated
TRION-SUB-600V	600 V_{RMS} (±1500 V_{PEAK})	300 kHz	Yes
TRION-SUB-5V	5 V_{RMS} (±10 V_{PEAK})	300 kHz	Yes
TRION-SUB-XV	600 V_{RMS} (±1000 V)[1)] 60 V_{RMS} (±100 V) 6 V_{RMS} (±10 V) 0.6 V_{RMS} (±1 V)	300 kHz	Yes
TRION-POWER-SUB-CUR-20A-1B	20 A_{RMS} (±40 A_{PEAK})	300 kHz	Yes
TRION-POWER-SUB-CUR-2A-1B	2 A_{RMS} (±4 A_{PEAK})	300 kHz	Yes
TRION-POWER-SUB-CUR-1A-1B	1 A_{RMS} (±2 A_{PEAK})	300 kHz	Yes
TRION-POWER-SUB-CUR-02A-1B	0.2 A_{RMS} (±0.4 A_{PEAK})	300 kHz	Yes
TRION-POWER-SUB-dLV-5V	5 V_{RMS} (±10 V_{PEAK})	5 MHz	No
TRION-POWER-SUB-dLV-1V	1 V_{RMS} (±2 V_{PEAK})	5 MHz	No
TRION-POWER-SUB-CT	1 A_{RMS} (±2 A_{PEAK}) 0.5 A_{RMS} (±1 A_{PEAK}) 0.25 A_{RMS} (±0.5 A_{PEAK}) 0.1 A_{RMS} (±0.2 A_{PEAK})	5 MHz	No

Tab. 58: Supported TRION sub-modules

[6)] Max. allowed input: 600 V CAT II (850 V_{PEAK}).

INFORMATION

The *TRION-POWER-SUB-dLV-1* sub-module is not supported.