TY3-1810x-SUB-8

- Carrier board for up to 8 TY sub-modules
- Sampling:
  - TY3-1810-SUB-8: up to 1 MS/s
  - TY3-1810M-SUB-8: up to 10 MS/s

Module specifications

TY3-1810x-SUB-8 specifi ca i ons	
Input channels	Carrier board for up to 8 TY sub-modules for measuring voltage and current
Sampling rate	TY-1810-SUB-8: up to 1 MS/s
	TY-1810M-SUB-8: up to 10 MS/s
Input specifications	For detailed informati on about the input specifi cati ons refer to *TY sub-modules* in the TY 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	<250 ns (0.1° @ 1 kHz, 0.005° @ 50 Hz), same board type only
Low pass filter (-3 dB, digital and analog combined)	TY3-1810-SUB-8: 1 Hz to 300 kHz freely programmable or OFF TY3-1810M-SUB-8: 1 Hz to 3 MHz freely programmable or OFF
– Filter order and characteristics	2nd, 4th, 6th, 8th Bessel or Butt erworth
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 TY-POWER-SUB-dLV-xV modules	+9 V: 200 mA / -9 V: 200 mA

Tab. 57: General specifications

INFORMATION

The TY3-1810M-SUB-8 is mainly recommended for the use with TY-SUB-CT, TY-POWER-SUB-dLV-1V and TY-POWER-SUB-dLV-5V to benefi t from the full bandwidth of these sub-modules.

Interchangeable sub-modules

The TY3-**1810x**-SUB-8 module provides 8 slots for TY sub modules, thus allowing a very modular confi gurati on of various voltage and current inputs.

Fig. 157: Available TY sub-modules

The following TY-SUB-modules can be combined as desired. For detailed information about the various TY sub-modules refer to *TY sub-modules* of the TY3 series modules technical reference manual.

Type	Range	Bandwidth	Isolated
TY-SUB-600V	600 V_{RMS} (±1500 V_{PEAK})	300 kHz	Yes
TY-SUB-5V	5 V_{RMS} (±10 V_{PEAK})	300 kHz	Yes
TY-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
TY-POWER-SUB-CUR-20A-1B	20 A_{RMS} (±40 A_{PEAK})	300 kHz	Yes
TY-POWER-SUB-CUR-2A-1B	2 A_{RMS} (±4 A_{PEAK})	300 kHz	Yes
TY-POWER-SUB-CUR-1A-1B	1 A_{RMS} (±2 A_{PEAK})	300 kHz	Yes
TY-POWER-SUB-CUR-02A-1B	0.2 A_{RMS} (±0.4 A_{PEAK})	300 kHz	Yes
TY-POWER-SUB-dLV-5V	5 V_{RMS} (±10 V_{PEAK})	5 MHz	No
TY-POWER-SUB-dLV-1V	1 V_{RMS} (±2 V_{PEAK})	5 MHz	No
TY-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 TY sub-modules [6)]

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

INFORMATION

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