Bandweaver

DATASHEET

T-Laser DTS
Distributed Temperature Sensor

FRONT VIEW

REAR VIEW

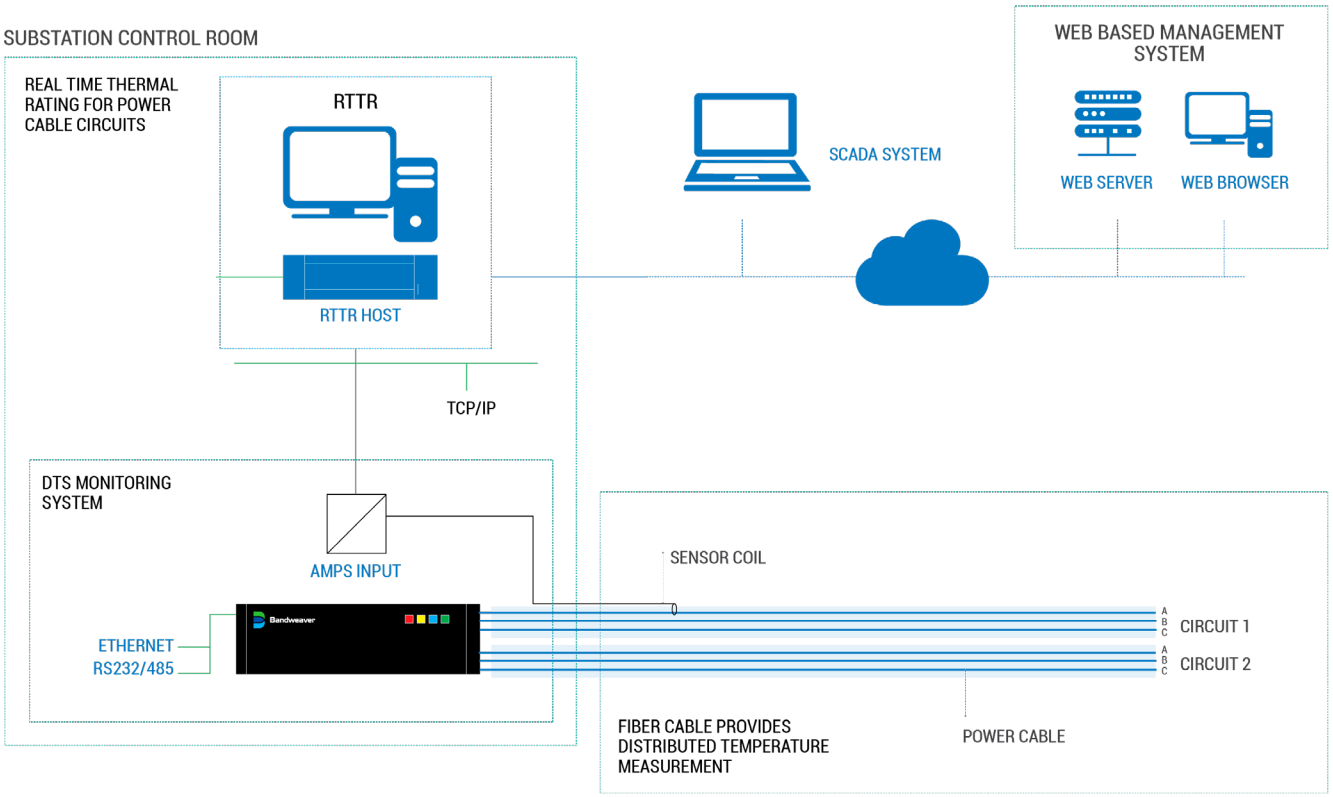
Monitored | Secured | Safe

T-LASER SPECIFICATIONS

T-LASER SPECIFICATIONS				
Range per channel	10 km	20 km	30 km	40 km
Number of channels	All models 4 or 8 channels (check 16 channel versions for compliance availability)			
Ordering Part Numbers	DTS-TL-02-10-4CH DTS-TL-02-10-8CH DTS-TL-02-10-16CH*	DTS-TL-02-20-4CH DTS-TL-02-20-8CH DTS-TL-02-20-16CH*	DTS-TL-02-30-4CH DTS-TL-02-30-8CH DTS-TL-02-30-16CH*	DTS-TL-02-40-4CH DTS-TL-02-40-8CH DTS-TL-02-40-16CH*
DATA ACQUISITION				
Measuring time	≥1s/ch	≥15s/ch	≥30s/ch	≥60s/ch
Sampling Interval	0.5m/1m	1m	1m	2m
Spatial Resolution	<2m	<2.5m	<4m	<5m
Temperature Resolution	0.1°C @ 4 minutes	0.2°C @ 10 minutes	0.5°C @ 10 minutes	1.0°C @ 10 minute
Temperature Accuracy	±1°C	±1°C	±2°C	±2°C
Fiber Break Alarm	Automatic detection, accuracy within < ±5m			
OPTICAL				
Laser Wavelength	1550 nm			
Optical Budget	8	8	8	10
Connector Type	E2000			
Fiber type	Multi mode, graded index 50/125			
Bandweaver Cable	T-Fiber AT (metal construction) T-Fiber TT (non-metal construction) (enquire for other models)			
Connection Configuration	Single Ended / Double Ended Loop			
Laser Safety Classification	Class 1			
ELECTRICAL AND HARDWARE INTERFACES				
Supply Voltage	24VDC (18 to 36 VDC)			
Power Consumption	25W (average)			
Relays	Yes - 50 output relays: 2x Fault, 4x Fiber break, 44x user programmable			
Modbus	MODBUS TCP / MODBUS RTU			
RJ45	3x 100Mbps			
Serial	2x RS-485			
USB	1x USB On-the-go (OTG)			
Other	5.7-inch touch screen, 640x480-pixel 262K			
Internal Storage	> 500,000 measurements @10km (1m sampling) > 250,000 measurements @ 40km (2m sampling) 32GB			

* Enquire with Bandweaver for Safety and Compliance of 16 channel DTS. It differs from the specifications on this datasheet

T-LASER SPECIFICATIONS (CONT.)

PHYSICAL	
Rack height	3U
Dimensions (W * H * D)	431 x 131 x 384 mm
Net Weight	10kg
IP Rating	IP40
Material	Painted Steel
Colour/Finish	Matt Black
Shipping dimensions	550 x 330 x 530 mm
Shipping Weight	15 kg
ENVIRONMENTAL	
Operating Temperature	-10°C to +50°C
Operating Humidity	0 to 95% Relative Humidity, Non-condensing
Storage Temperature	-10°C to +85°C
Storage Humidity	0 to 95% Relative Humidity, Non-condensing
SAFETY AND COMPLIANCE*	
Laser Safety	IEC 60825-1:2007 (2nd Edition)
CE - EMC	EMC 2014/30/EU - EN 61000-6-3:2007+A1:2011, EN 61000-3-2:2014 EN 61000-3-3:2013 EN 61000-6-1:2007
CE - LVD	N/A
CE - RoHS	Yes
FDA	FDA Ascension number 1920930-000
FCC	47CFR Part 15:2017, ANSI C63.4:2014
SIL	SIL2
SOFTWARE	
Software Name	DTSCM2
Software Compatibility	FireLaser V3 / T-Laser
Max. Zones	1000

EXAMPLE OF RTTR SYSTEM ARCHITECTURE