



SDT340 Datasheet

The SDT340 is the perfect platform for advanced Asset Health Evaluation by means of Ultrasound and Vibration synergy. The SDT340 offers an unbeatable performance level boosted by a high sample rate, a long acquisition time and supported by a well-scaled 4Gb data memory. The device benefits from the innovative ultrasound SDT FocUS Mode for an unparalleled impact detection of bearing and gearing faults. It incorporates the tools to conduct on-field first level diagnosis.

Key Performance specifications

- 2 input channels
- 10 Hz to 50 kHz Bandwidth
- 256 kHz sample rate
- 10 minutes record length
- 4.2 GB data memory
- On-board temperature and rotational speed measurements
- 3.5" full color display 320x480

Key features

- Tree database structure
- Quick and intuitive navigation through database nodes
- On-screen time waveform and spectrum
- Spanning and zooming functions for navigation through a record
- TWF and FFT 10 highest values table
- 4 Scalar indicators for ultrasound and vibration measurements
- Off-route and on-route data collection modes
- Recall of historical data in-the-field
- Dual Bluetooth for wireless audio and data streaming
- Signal play back

Specifications

System features	
Operating system	Linux
CPU	400 MHz ARM9
Data memory	4.2 GB allowing the storage of 71 minutes of signal sampled at 128 kHz or 286 minutes at 32 kHz
Signal processing	
Dynamic range	109 dB
Resolution	16 bits
Signal length per recording	600 seconds (32 kHz sample rate) or 150 seconds (128 kHz)
Ultrasound measurement	
Measuring range	-15 to 110 dB μ V (reference 0 dB = 1 μ V)
Sensitivity	Class I exceeding ASTM 1002-11 requirements for gas leak detection with the appropriate sensor
Resolution	0.1 dB μ V
Noise floor	-15 dB μ V (0.18 μ V)
Frequency range	20 to 50 kHz
Indicators	RMS, Max RMS, Peak and Crest Factor. Running (refreshed every 0.5 seconds) and total over the acquisition time
Sampling rate	32, 128 and 256 kHz oversampling FocUS Mode
Vibration measurements	
Measuring range	0.01 to 15 g RMS and 0.1 to 2300 mm/s (0.01 to 92 ips)
Resolution	0.05 g and 0.1 mm/s (0.01 ips)
Noise floor	0.01 g and 0.1 mm/s
Frequency range	10 to 1 kHz and 10 to 10 kHz
Indicators	RMS Velocity; RMS, Peak and Crest Factor Acceleration. Running (refreshed every 0.5 seconds) and total over the acquisition time
Sampling rate	32 and 64 kHz
Compatible accelerometers	Any 100mV/g ICP accelerometer
Temperature measurements	
Type	Infrared sensor
Measuring range	-70 to +380°C (-94 to +716°F)
Accuracy (0 to 50°C - -32 to 122°F)	\pm 0.5 °C (\pm 32.9 °F)
Field of view (attenuation of 50%)	10°
Rotational speed measurements	
Type	Optical sensor
Light source	Red spot laser Class II
Measuring distance	50 to 2000 mm (2 to 80 inches)
Measuring range	10 to 99 999 RPM
Accuracy	0.1% of the reading value + 1 digit
Bluetooth	
Type	Dual mode for data and audio streaming
Frequency band	2.4 GHz
Maximum data rate	1.6 Mbps
Transmitter power	Class 2 <4 dBm (audio) and <10 dBm (data)
Certification	Certified 4.2 audio module

The information herein is believed to be accurate to the best of our knowledge.

Due to continuous research and development, specifications are subject to change without prior notice.

Mechanical characteristics	
Display	Full color TFT 3.5" screen 320x480. Active area: width 48.96 mm (1.93") x height 73.44 mm (2.89")
Housing	Extruded aluminum, shock proof rubber protections
Dimensions	L x W x H 221 x 93.5 x 44 mm (8.7 x 3.7 x 1.7 inches)
Weight	720 g (25.4 oz), battery included
Operating and storage conditions	-15 °C to +60 °C (14 °F to 140 °F) <95% RH non-condensing
Power	
Battery	Rechargeable NiMH battery.
Nominal capacity	4.4 Ah
Autonomy	More than 8 hours
Recharge time	6 to 7 hours for a fully flat battery
Battery charger	110 to 230 VAC, 50/60 Hz
Headphone	
Type	Wired headset and wireless Bluetooth headset. The SDT340 is compliant to noise exposure health and safety requirements when using SDT provided models
NRR	25 dB
Warranty	
Lifetime warranty	Visit www.sdtultrasound.com for details

Kit content

FU.R340.001	SDT340
FASFTWUASLI00	UAS Lite
FUHDPH-1	Wired headset
FU.R340.BPS-01	Battery pack
FU.R340.BDS-01	Battery charger
FU.R340.PS2	Battery charger power cord and EU, US and UK plugs
FUCABLSPLE7LE7-10	Spiral Cable with 2 male 7-pole LEMO connectors
SICABUSB-12-01	USB communication cable
FAHOLSAC-01	Shoulder strap
FUTOOLSCRDRIV	Multifunction screw driver
DMSDTUSB	USB key containing user manuals and UAS Lite
SA.R340.CBX.001-01	Cardboard packing box

Optional

FU.R340.001	Stackable ABS case. L x W x H 296x396x210 mm
FU.CA930.CBOX.001.01	IP67 heavy duty case. L x W x H 503x406x193 mm
FUHDPH-8	Bluetooth headset

The information herein is believed to be accurate to the best of our knowledge.
Due to continuous research and development, specifications are subject to change without prior notice.