iDAS™ intelligent Distributed Acoustic Sensor

The world's finest distributed acoustic sensor, the iDAS, has a novel optoelectronics architecture that allows for digital recording of acoustic fields at every location along a standard optical fibre. Amplitude, frequency and phase fidelity allows for numerous advanced applications.

Performance

Gauge length	10 m
Sensing range*	45 km
1 kHz amplitude spectral density**	2 pε per sqrt Hz
10 Hz dynamic range**	100 dB
Sample spacing	25 cm to 32 m (40,000 samples maximum)
Spatial resolution†	10 m
Sampling frequency ††	400 Hz to 100 kHz
Acoustic sensitivity	<0.001 Hz to 50 kHz

* Defined for singlemode fibre.
** Median value over full length of 400 m singlemode fibre.
† Defined as the spatial rise / fall length of an extended source. Spatial localization of a point source is achievable down to 1 m depending on interrogation settings.
†† Depending on the fibre length.

I/O Connections

Fibre	1 x E2000/APC (singlemode or multimode fibre compatible)
Power	1 x IEC 60320-1 C20 inlet
Ethernet	2 x 1 GbE RJ45 port
USB	2 x USB 3.0 port and 4 x USB 2.0 port
Display	2 x DisplayPort
Internal data storage	1 x 4 TB SSD RAID module
External data storage connection	2 x 10 GbE SFP+ port and 2 x PCIe x4 cable port
GPS antenna input	1 x SMB connector
Synchronisation clock output	1 x SMB connector
Trigger	Trigger In: 1 x SMB connector, Trigger Out: 1 x SMB connector
PTP	1 x LAN RJ45 port

Mechanical and Environmental

Dimensions	195 mm (with feet attached) x 444 mm x 518 mm (H x W x D)
Rackmount	1 x 19" Rack mount kit supplied
Weight	24 kg
Operating temperature range	5 °C to 40 °C
Operating relative humidity range	10% to 90%, non-condensing

Compliance

Laser safety	Class 1
Product marking	CE, UKCA and FCC

Electrical

Input voltage range	100 to 240 VAC
Input voltage frequency	50 to 60 Hz
Power consumption	215 W (typical)

Silixa Ltd
230, Centennial Park, Elstree, Hertfordshire
WD6 3SN, UK
t: +44 (0) 20 8327 4210

Silixa LLC
12709 Haynes Road, Houston
TX 77066, USA
t: +1 713 493 0348

Silixa LLC
3102 W Broadway St, Suite A, Missoula,
MT 59808, USA
t: +1 406 204 7298

silixa.com
sales@silixa.com
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