

iDAS-MG™ the multi-gauge length intelligent Distributed Acoustic Sensor

iDAS-MG offers greater flexibility to provide optimum performance over a variety of applications and ranges with user-selectable gauge lengths of 3, 5, 10 or 30 metres.

This allows the user to fine tune iDAS's spatial resolution, dynamic range, and noise floor to maximize the measurement quality of specific signals without sacrificing overall system noise performance.



Performance

Gauge length (software selectable)	3 m	5 m	10 m	30 m
Sensing range*	30 km	35 km	45 km	50 km
1 kHz amplitude spectral density**	10 pε per sqrt Hz	5 pε per sqrt Hz	2 pε per sqrt Hz	1 pε per sqrt Hz
10 Hz dynamic range**	100 dB			
Sample spacing	25 cm to 32 m (40,000 samples maximum)			
Spatial resolution†	1 gauge length			
Sampling frequency††	25 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)