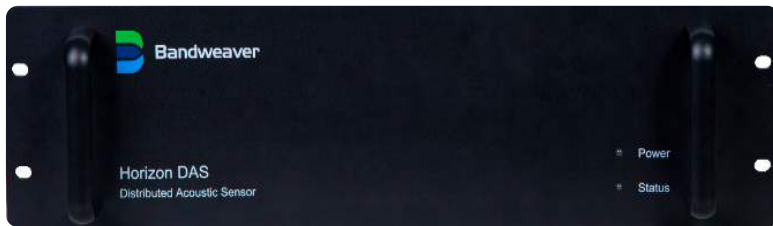


Horizon Distributed Acoustic Sensor

DETECTOR UNIT



FRONT PANEL VIEW



REAR PANEL VIEW

PROCESSOR UNIT



FRONT PANEL VIEW



REAR PANEL VIEW

PROCESSOR UNIT SPECIFICATIONS

PROCESSOR UNIT SPECIFICATIONS

Main Processor	AIMB-707
Processor	Intel i7 10700
BIOS	AMI 64 Mbit SPI
Memory: RAM	16GB
Memory	2 TB (5 & 10 km) & 8 TB (20 & 50 km models) - Solid State Drive (enquire for additional memory requirements)

GRAPHICS

Graphics Card	GeForce GTX1650
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INTERFACES

USB	Front: 2 , Rear: 4
Serial	Rear: 1
PS/2	Front: 1 (keyboard) / Rear: 2 (1 x keyboard and 1 x mouse)
HDMI / DVI / Displayport	Yes (1 of each)
VGA	No
Ethernet	2x connection to Horizon DU, 1x user connection (network switch / SCADA etc.) 1x reserved (remote login / maintenance)

ELECTRICAL

Input Voltage	AC 100 - 240 V
Power Consumption	300W
Power Supply Safety	UL / TUV / CB / CCC
Power Supply MTBF	100,000 hours @ 25 °C

PHYSICAL

Dimensions	482mm x 450mm x 177mm (4U)
Shipping Dimensions	610mm x 330mm x 560mm
Weight	12.5 kg (18kg Shipping weight)
System Fan Detail	1 (12 cm / 77 CFM)

ENVIRONMENTAL

Temperature	Operating: 0° to +40 °C Storage -20 ° to 60°C
Humidity	Operating: 10 ~ 85% @ 40°C, non-condensing Storage: 10 ~ 95% @ 40°C, non-condensing
Vibration (5 - 500 Hz)	Operating: 1Grms / Non-Operating: 2 G
Shock	Operating: 10 G (with 11 ms duration, half sine wave) / Non-Operating: 30 G

OPERATING SYSTEM AND SOFTWARE

Operating System	Windows Enterprise
Software	DASCM

DETECTOR UNIT SPECIFICATIONS

DETECTOR UNIT SPECIFICATIONS

Product	Horizon 20	Horizon 50
Range per channel	20km	50km
Number of channels	2 channels	
Ordering Part Numbers	DAS-HZ-02-20-2CH	DAS-HZ-02-50-2CH

DATA ACQUISITION

Acquisition Frequency	2kHz default - 1kHz / 2kHz / 4kHz available as standard. 10kHz / 20kHz by special request (for select Horizon Units)	
Event accuracy resolution***	2-10 m	5m - 10m

OPTICAL

Laser Wavelength	1550 nm
Optical Budget	12 dB @ 1550 nm
Connector Type	FC / APC
Cable type	G.652 / G.654
Laser Safety Classification	Class 1

ELECTRICAL AND HARDWARE INTERFACES

Supply Voltage	220V AC (110V-240V AC), 50/60 Hz
Power Consumption	< 70W
Alert & Communications Protocols	MODBUS (MaxView), Email (MaxView), IEC 60870-5-104 (MaxView)
Camera Integration	Yes - camera feed integration into SSOS - ONVIF as standard - enquire for other
PSIM / SCADA Integration	Ethernet TCP/IP - Software adapter module

PHYSICAL

Dimensions	430mm x 405mm x 132mm (3U)
Shipping Dimensions	575mm x 535mm x 325mm
Weight	14 kg (15.5kg Shipping weight)
IP Rating	IP40

ENVIRONMENTAL

Operating Temperature	0° to +45°C (-10° to 55°C available on request)
Operating Humidity	0 to 95% RH, Non-condensing
Storage Temperature	-45°C-80°C
Storage Humidity	0-90%

SAFETY AND COMPLIANCE

Laser Safety	IEC60825-1
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	LVD 2014/35/EU - IEC 61010-1:2010, EN 61010-1:2010
CE - RoHS	Yes
FDA	FDA Ascension number 1820671-000
FCC	47CFR Part 15:2017, ANSI C63.4:2014
Safety Integrity Level	SIL1 (1oo1) SIL2 (1oo2)

*Range is dependent on the optical quality of the sensing cable route. This can be confirmed upon reviewing an OTDR trace vs the planned optical budget.

**Event classification is for buried cable mode. Using the DNN the system can be configured to adapt specific algorithms according to the environments. More information available on request

***Event detection resolution is a combination of spatial resolution and sampling resolution

DAS Configuration Manager (DAS-CM)

Map view with example of alert

Alert table

Acoustic energy histogram

Waterfall display

Integration of CCTV camera

Sample Screenshot of DASCAM (installed on Horizon PU)

System Integration Overview

