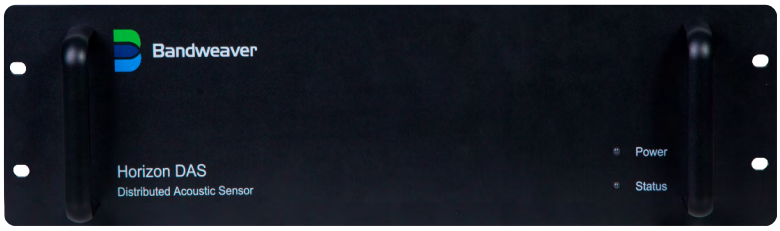
Bandweaver

DATASHEET

Horizon
Distributed Acoustic Sensor

DETECTOR UNIT



FRONT PANEL VIEW



REAR PANEL VIEW

PROCESSOR UNIT



FRONT PANEL VIEW



REAR PANEL VIEW

Monitored | Secured | Safe

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
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

The above specifications are provided as guidance only and cannot be guaranteed to be exact and Bandweaver will supply the equivalent or better

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-03-20-2CH System	DAS-HZ-03-50-2CH System
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	Bandweaver protocol, Email via MaxView	
Camera Integration	Yes - camera feed integration into SSOS - ONVIF as standard - enquire for other	
PSIM /VMS/SCADA Integration	Ethernet TCP/IP - MaxView Export 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

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DAS Configuration Manager (DAS-CM)



Sample Screenshot of DASCM (installed on Horizon PU)

System Integration Overview

