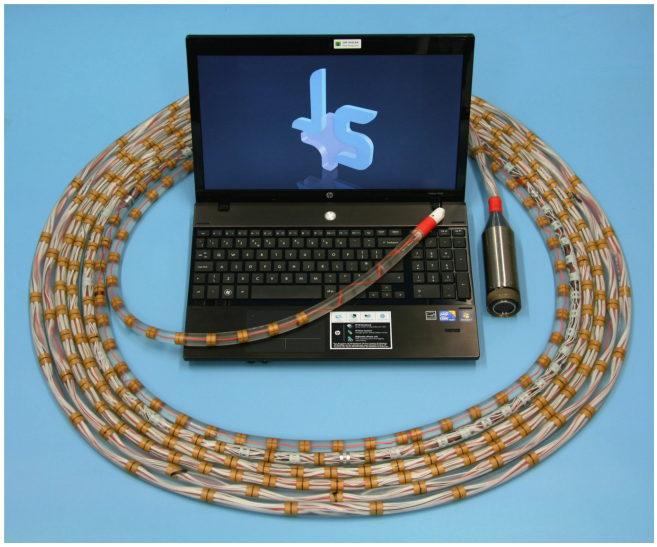
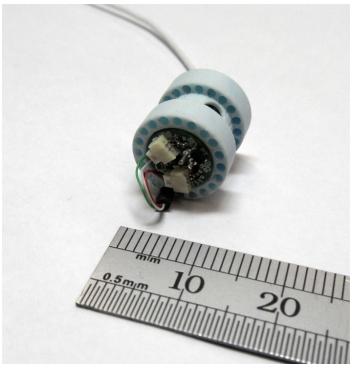
Datasheet

Low Profile Array



The Low Profile Array (LPA) is a small diameter passive acoustic line array suitable for towed or static applications. J+S have made use of their knowledge and experience of larger diameter arrays to develop this highly adaptable product that is uniquely suitable to today's underwater environment. With good acoustic performance and containing a host of non acoustic sensors, the LPA can be adapted and used for many applications including:

- Harbour Protection
- Homeland Security
- UUV/AUV/OPV Towed Array
- Suspended/Vertical Array
- Cetacean Monitoring
- Environmental Impact Assessment
- Torpedo Defence Systems
- ASW
- Diver Monitoring

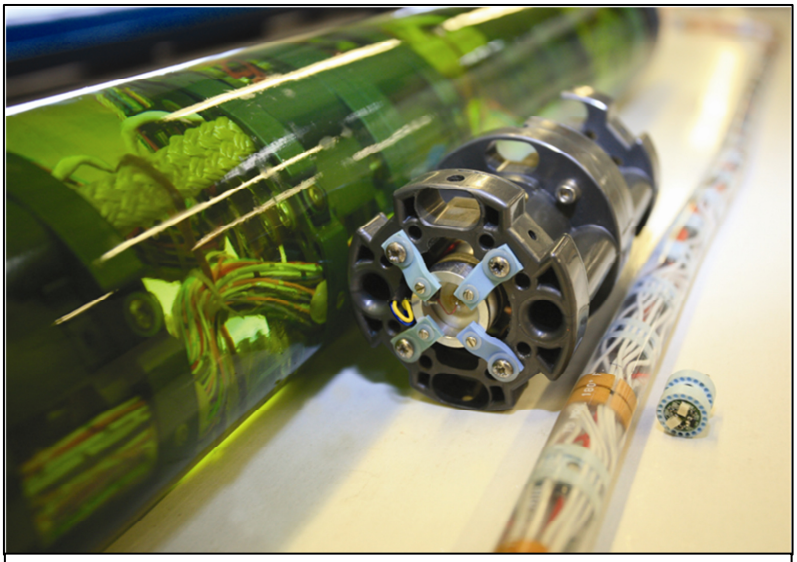


The core of the LPA is the JS-LPA-32 hydrophone/pre-amp assembly that offers high sensitivity, wideband performance with an integrated low-noise, low-power pre-amplifier. This Integrated Acoustic Sensor (IAS) has been in use for a number of years with the NATO Undersea Research Center (NURC). The acoustic channels can be configured to customer requirements and provide beam forming capabilities up to 25kHz. The standard LPA configuration is a 33 channel, 6 octave nested array with an upper operating octave of 25kHz.

To complement the acoustic capability of the LPA, a suite of Non-Acoustic Sensors (NAS) has been developed. The NAS provides the user with current LPA bearing, pitch, temperature and depth. With a digital bus configuration, a number of NAS can in installed on the LPA to provide increased accuracy of the metadata.

Datasheet

Low Profile Array



Comparative size of a n 89mm Ø conventional Line Array and the 16mm Ø Low Profile Array

A standard LPA has the following characteristics (Other configurations are available):

- 33 Nested Acoustic Channels
- 6 Octaves, 25kHz HF Octave
- Channel Bandwidth 0.2kHz – 32kHz (±2dB)
- Acoustic Channel Sensitivity -170dB re. 1V/uPa
- External Diameter 16mm
- Length 15m
- Acoustic Aperture 2m
- Bend Radius 100mm
- Operating Depth 250m
- 7Vdc – 30Vdc Supply Voltage
- 10mW per Channel Power Consumption
- ±2deg Bearing/Pitch Accuracy
- ±1deg Temperature Accuracy
- ±1m Depth Accuracy

Low Profile Array technology integrated into a 25mm Ø triplet configuration

J+S also have a wide range of other Integrated Acoustic Sensors which are individually available for OEM applications, including a triplet configuration for resolving let/right ambiguity.

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