

# DualSense 030

Spherical Projector



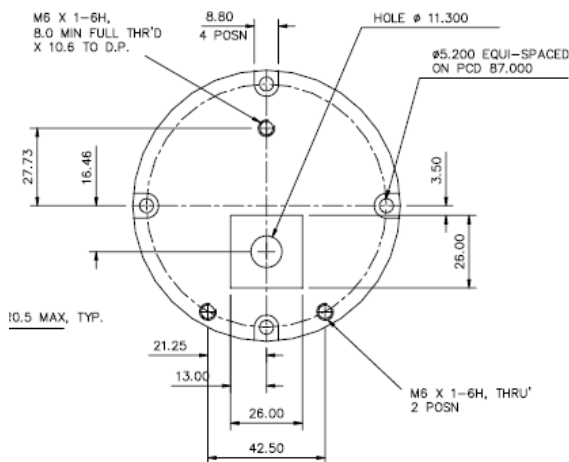
# DualSense 030 Spherical Projector

DualSense 030 is a reliable, horizontally omni-directional, spherical, reciprocal transducer. Useful in applications requiring mid frequency acoustic source references.

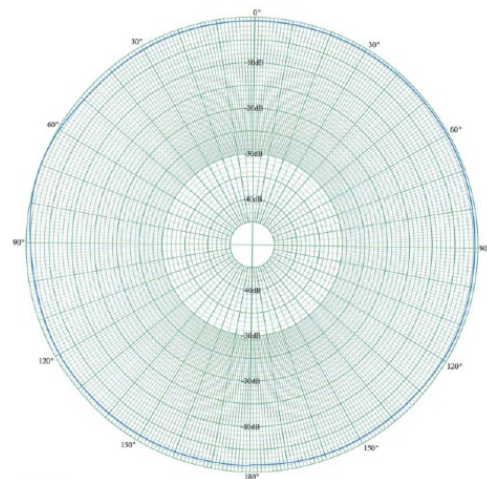
Made in a hard ceramic, the DualSense 030 is ideal for transmitting applications; however, due to the reciprocal nature the transducer is equally usable as a hydrophone over low frequencies.

The DualSense transducer comes in a protective, durable, polyurethane coating.

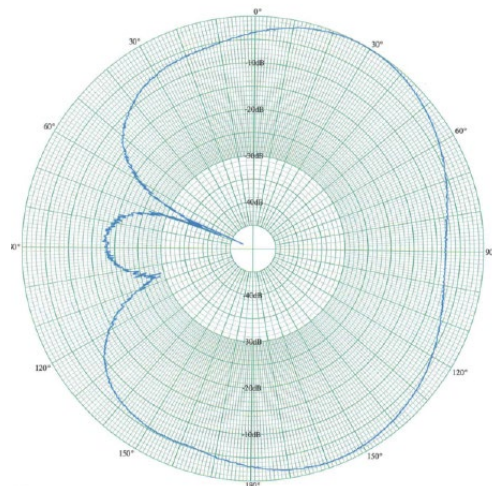
## Mounting Arrangement



## Horizontal Beam Pattern @ 30 kHz

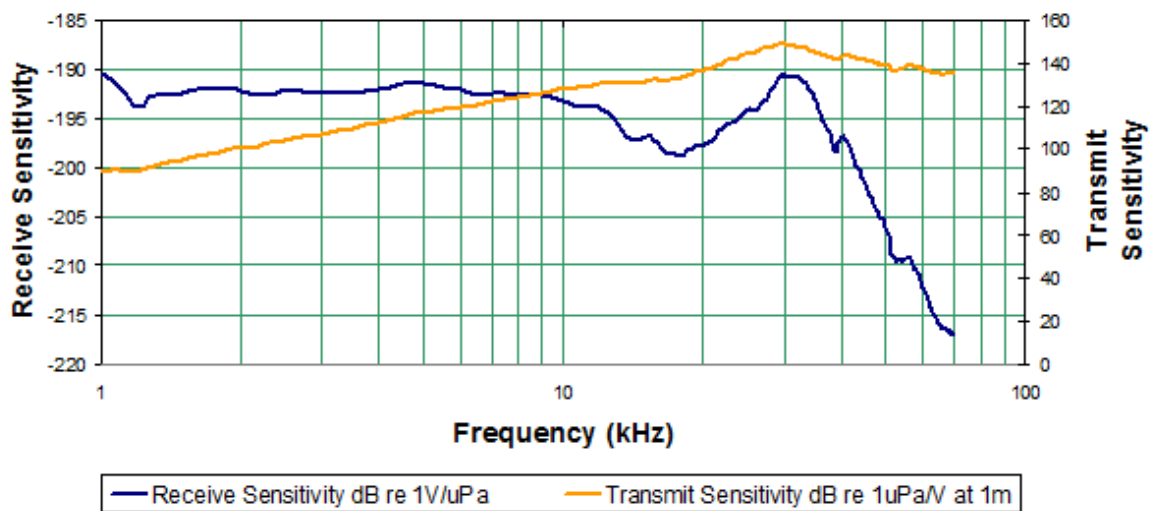


## Vertical Beam Pattern @ 30 kHz

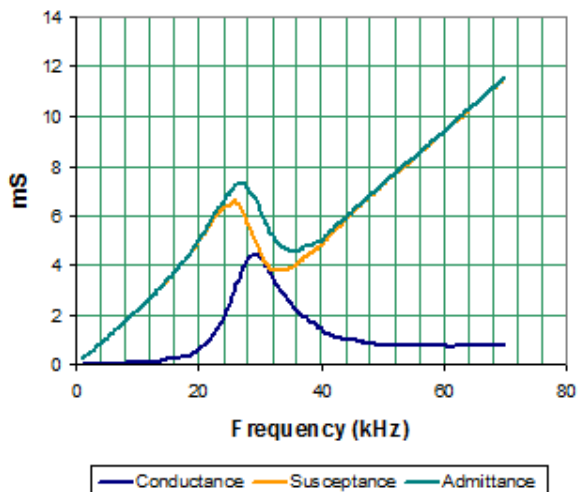




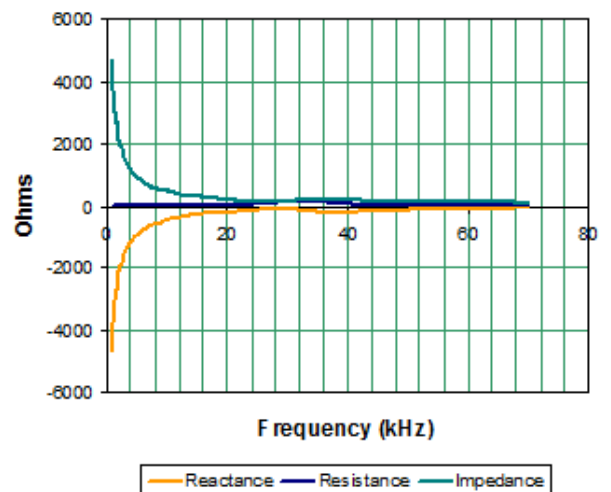
### ▲ Sensitivity



### ▲ Admittance



### ▲ Impedance



# DualSense 030 Spherical Projector

## Advantages

- Horizontally omni-directional
- Long-term stability
- Efficient transmitter
- Durable and reliable construction

## Applications

- Acoustic reference standard
- High power sound source
- Underwater communication applications

## Variations

### Broadband 030

- Broadband tuned transducer
- Resonant frequency approx. 30 kHz

## Technical Specification

Nominal resonant frequency	30 kHz
Receive Sensitivity @ 30 kHz	-191 dB re 1V/ $\mu$ Pa
Recommended receive frequency range	10 Hz - 50 kHz
Linear frequency range	10 Hz - 10 kHz
Maximum acoustic input @ 30 kHz	+251 dB re 1 $\mu$ Pa/V at 1 m
Transmit sensitivity @ 30 kHz	+149 dB re 1 $\mu$ Pa/V at 1 m
-3 dB bandwidth	8.5 kHz
Quality factor	3.5
Recommended transmit frequency range	20 kHz - 60 kHz
Maximum source level @ 30 kHz	+209 dB re 1 $\mu$ Pa/V at 1 m
Maximum applied voltage at resonance	1,000 Vrms
Low frequency capacitance (@ 1 kHz)	37 nF
Horizontal beam pattern	Omni-directional
Vertical beam pattern	Hemispherical >270° +/- 2dB

## Mechanical Specification

Dimensions	70 mm outer diameter x 105 mm length
Transducer head weight in air	Approx. 600 g
Transducer head weight in water	Approx. 400 g
Maximum recommended operating depth	1,000 m
Survival depth	2,000 m
Operating temperature range	-5 to +35 °C
Cable	5 m screened, twisted pair cable
Connector	Bare ends
Mounting	Dunking

\*In view of our continual improvements, the designs and specifications of our products may vary from those described.

Please specify any additional cable, alternative connectors and/or calibration requirements with orders



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