

# DualSense 060H

Spherical Projector



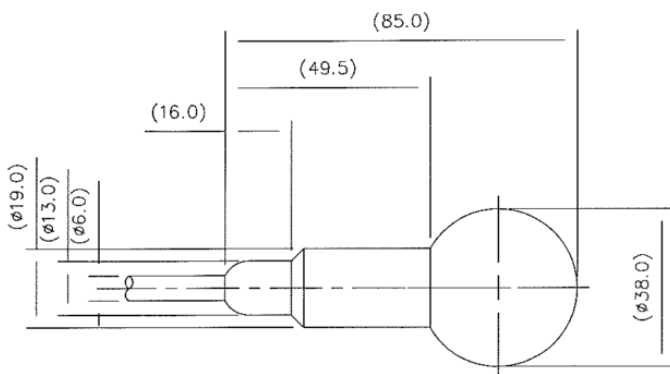
# DualSense 060H Spherical Projector

**DualSense 060H is a reliable, horizontally omni-directional, spherical, reciprocal transducer.**

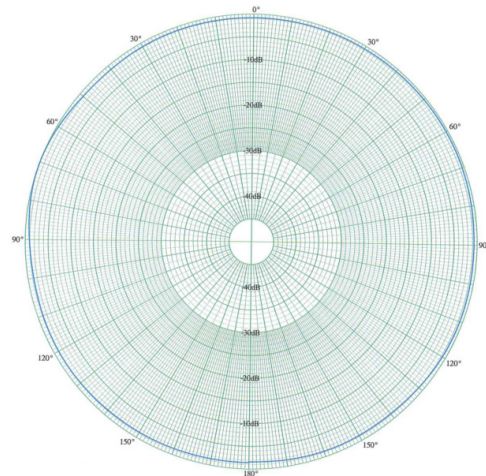
The DualSense 060H is useful in applications requiring an acoustic source reference. Made in a hard ceramic, it is ideal for transmitting applications; however, due to the reciprocal nature the transducer is equally usable as a hydrophone over low frequencies.

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

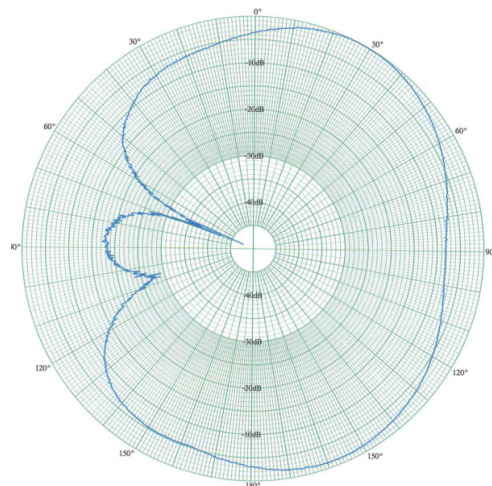
## ▲ Mechanical Drawing



## ▲ Horizontal Beam Pattern @ 50 kHz

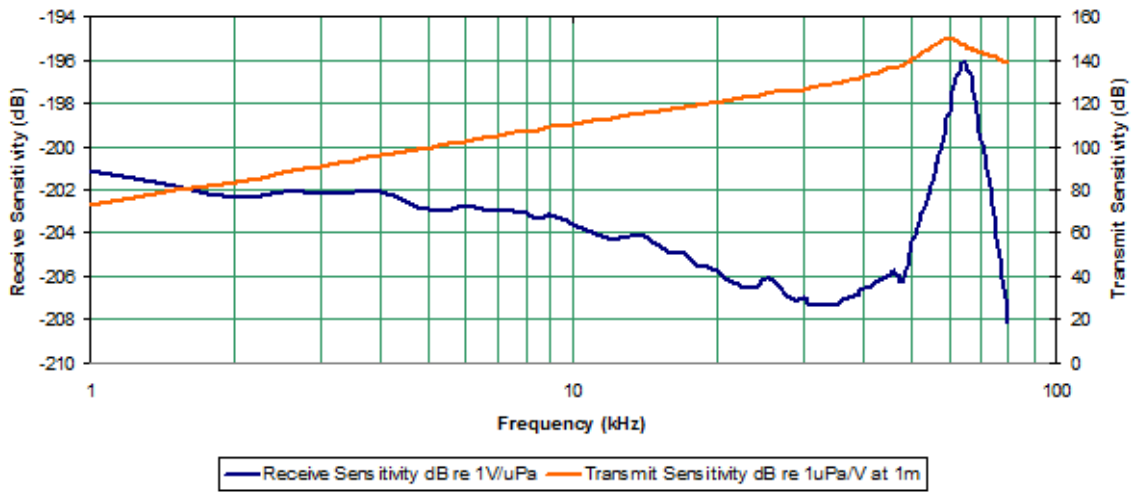


## ▲ Vertical Beam Pattern @ 50 kHz



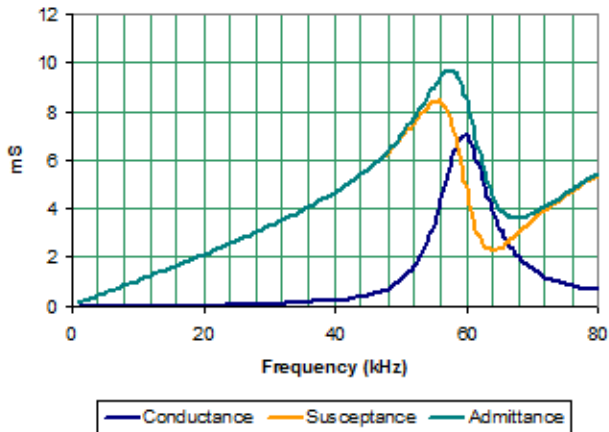


## ▲ Sensitivity

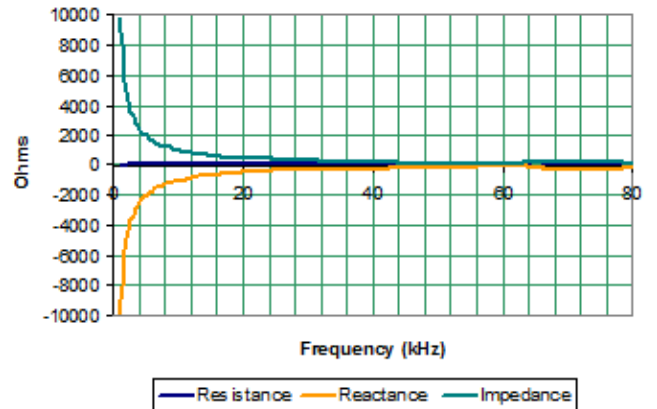


2435-037

## ▲ Admittance



## ▲ Impedance



# DualSense 060H Spherical Projector

## Advantages

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

## Applications

- Acoustic reference standard
- High power noise source
- Underwater communication systems

## Variations

### DualSense 060S-BH

- Bulkhead mounting

### DualSense 060S-DM-HS

- Flush-mounted
- Higher sensitivity levels

## Technical Specification

Nominal resonant frequency	60 kHz
Receive Sensitivity @ 65 kHz	-196 dB re 1V/ $\mu$ Pa
Recommended receive frequency range	10 Hz - 80 kHz
Linear frequency range	10 Hz - 10 kHz
Maximum acoustic input @ 65 kHz	+251 dB re 1 $\mu$ Pa/V at 1 m
Transmit Sensitivity @ 60 kHz	+149 dB re 1 $\mu$ Pa/V at 1 m
-3 dB bandwidth	8 kHz
Quality factor (3 dB)	7.5
Recommended transmit frequency range	50 kHz - 80 kHz
Maximum source level @ 60 kHz	+204 dB re 1 $\mu$ Pa/V at 1 m
Maximum applied voltage at resonance	600 Vrms
Low frequency capacitance (@ 1 kHz)	16 nF
Horizontal beam pattern	Omni-directional +2 dB at 50 kHz
Vertical beam pattern	> 270°

## Mechanical Specification

Dimensions	38 mm outer diameter x 85 mm length
Transducer head weight in air	Approx. 100 g
Transducer head weight in water	Approx. 70 g
Maximum recommended operating depth	1,000 m
Survival depth	2,000 m
Operating temperature range	-2 to +35 °C
Cable	5 m screened, twisted pair cable
Connector	Bare ends, or customer specified
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



Chelsea Technologies Ltd  
55 Central Avenue | West Molesey | Surrey KT8 2QZ | United Kingdom  
T +44 (0)20 8481 9000 | E sales@chelsea.co.uk | W chelsea.co.uk

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