

DualSense 030 SPHERICAL PROJECTOR



Typical Uses: Acoustic Reference Standard, High Power Sound Source, Underwater Communication Applications

FEATURES

The DualSense 030 transducer is a horizontally omnidirectional, spherical, reciprocal transducer. It is useful in applications requiring a mid frequency acoustic source references.

This transducer is made with a harder ceramic making it ideal for transmitting applications; however, due to the DualSense 030's reciprocal nature the transducer is equally useable as a hydrophone over low frequencies. The DualSense series are highly reliable transducers and come in a protective, durable, polyurethane coating.

ADVANTAGES

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

ORDER NUMBER

CTG 2257-003

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

TECHNICAL SPECIFICATION

Nominal resonant frequency	30 kHz
Integral Amplifier or Tuning Element	No
Receive Sensitivity @ 30Khz	-191 dB re 1V/ μ Pa
Recommended receive frequency range	10Hz - 50kHz
Linear frequency range	10Hz - 10kHz
Maximum acoustic input @30kHz	+ 251 dB re 1 μ Pa
Transmit sensitivity @ 30 kHz	+149 dB re 1 μ Pa/V at 1m
-3dB bandwidth	8.5kHz
Quality Factor	3.5
Recommended transmit frequency range	20 – 60kHz
Maximum source level @ 30 kHz	+209 dB re 1 μ Pa at 1m
Maximum applied voltage at resonance	1,000 Vrms
Low Frequency capacitance (@ 1kHz)	37 nF
Horizontal beam pattern	Omnidirectional
Vertical beam pattern	Hemispherical

MECHANICAL SPECIFICATION

Dimensions	Maximum outer diameter 70 mm, Length 105mm
Transducer head weight in air	***
Transducer head weight in water	***
Maximum recommended operating depth	1,000m
Survival depth	2,000m
Operating temperature range	-5 to +35°C
Cable	5m screen twisted pair cable
Connector	Bare ends
Mounting	Dunking

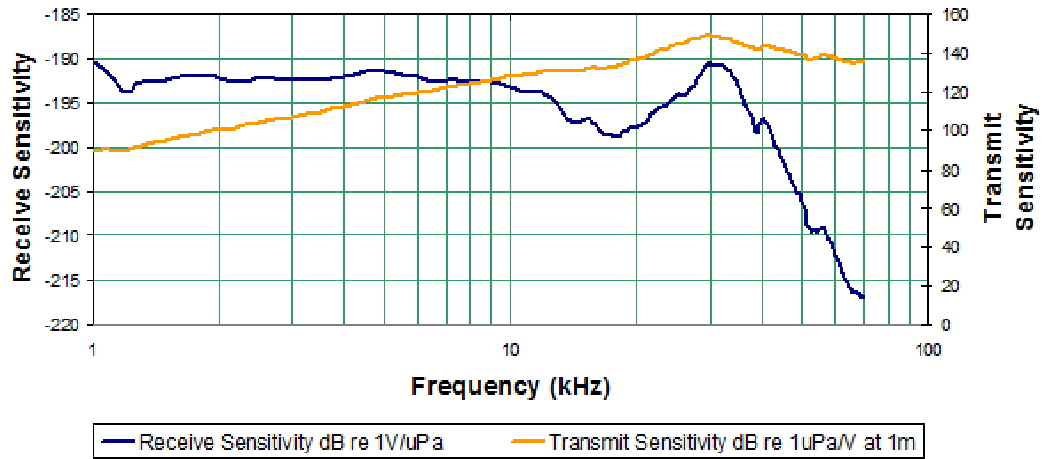
MECHANICAL DRAWING

CONNECTOR LAYOUT

Not applicable

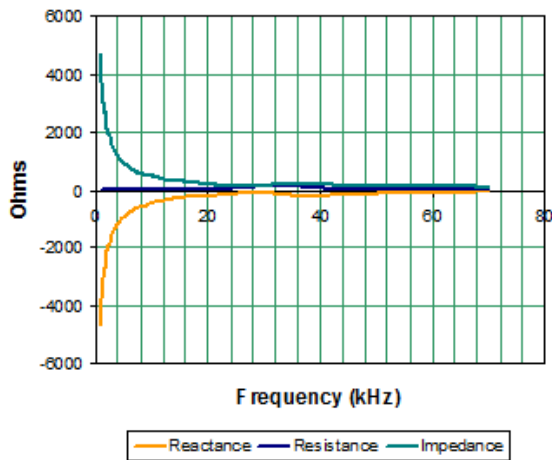
SENSITIVITY

DualSense 030 Sensitivity



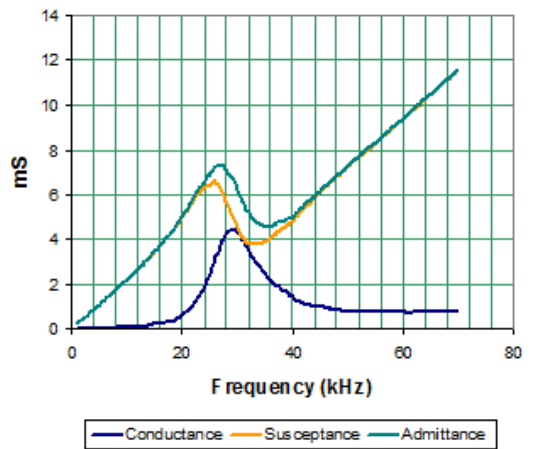
IMPEDANCE

DualSense 030 Impedance



ADMITTANCE

DualSense 030 Admittance



HORIZONTAL BEAM PATTERN

VERTICAL BEAM PATTERN

VARIATIONS

BroadBand 030 is also available as a broadband tuned transducer with resonant frequency of approximately 30kHz.



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*** Please contact CTG for more information
In view of our policy of continual improvement, the designs and specifications of our products may vary from those described 2271-014-RS-A)