

BroadBand 012 SPHERICAL BROADBAND PROJECTOR



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



FEATURES

The BroadBand 012 transducer is a horizontally omni-directional transducer with an integrated +10dB transformer (mounted in the anodized housing). The BroadBand 012 has a wide flat transmit and receive response across the frequency range of 8kHz-20kHz. It is useful in applications requiring low frequency acoustic source references.

This transducer is made with a harder ceramic making it ideal for transmitting applications. The BroadBand series are highly reliable transducers and the BroadBand 012 comes in a robust and durable bulkhead mounted housing.

ADVANTAGES

- Horizontally omni-directional
- Long-term stability
- Durable and reliable construction
- Low Frequency Acoustic Source

ORDER NUMBER

CTG 1273-0001

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

TECHNICAL SPECIFICATION

Nominal resonant frequency	12 kHz
Integral Amplifier or Tuning Element	Yes
Receive Sensitivity @ 14kHz	- 191 dB re 1V/ μ Pa
Recommended receive frequency range	10Hz – 15kHz
Linear frequency range	10Hz – 15kHz
Maximum acoustic input @14kHz	+ 245 dB re 1 μ Pa
Transmit sensitivity @ 13.5 kHz	+ 159 dB re 1 μ Pa/V at 1m
-3dB bandwidth	4.5 kHz
Quality Factor	2.67
Recommended transmit frequency range	8-20 kHz
Maximum source level @ 13.5kHz	+ 213 dB re 1 μ Pa at 1m
Maximum applied voltage	540 Vrms
Low Frequency capacitance (@ 1kHz)	***
Horizontal beam pattern	Omni-directional +/- 1.5 dB at 5kHz
Vertical beam pattern	>180° +/- 2dB

MECHANICAL SPECIFICATION

Dimensions	Maximum outer diameter 248mm, Length 336mm
Transducer mass in air	***
Transducer mass in water	***
Maximum recommended operating depth	625m
Survival depth	1250m
Operating temperature range	-5 to +35°C
Cable	None as standard
Connector	LPMBH-6-M Connector
Mounting	Bulkhead mounting

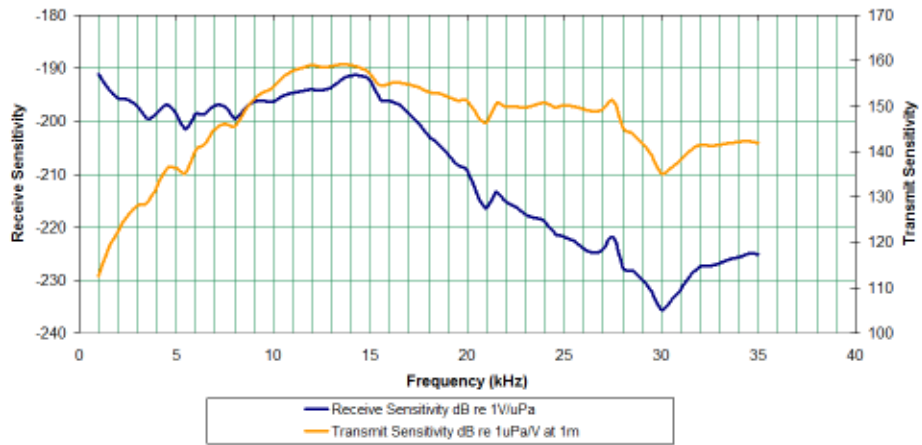
MECHANICAL DRAWING

CONNECTOR LAYOUT

Pin	Signal Name
1	+Signal (without 10dB transformer)
2	-Signal (without 10dB transformer)
3	Ground
4	+ Signal (with 10dB transformer)
5	Short with 2 to achieve +10dB
6	-Signal (with 10dB transformer)

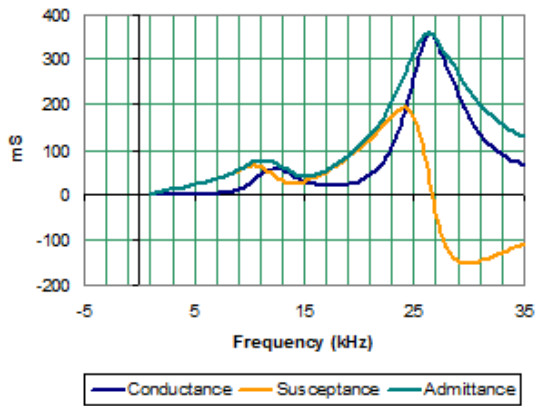
SENSITIVITY

BroadBand 012 Sensitivity



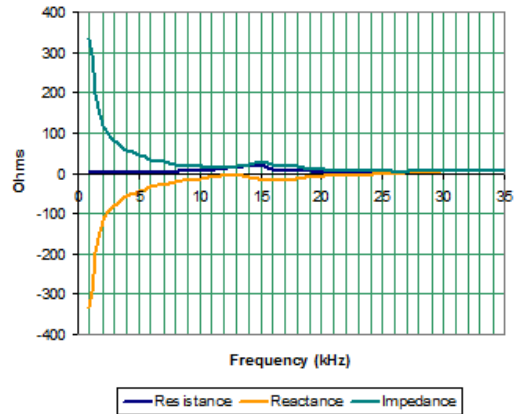
IMPEDANCE

BroadBand 012 Admittance



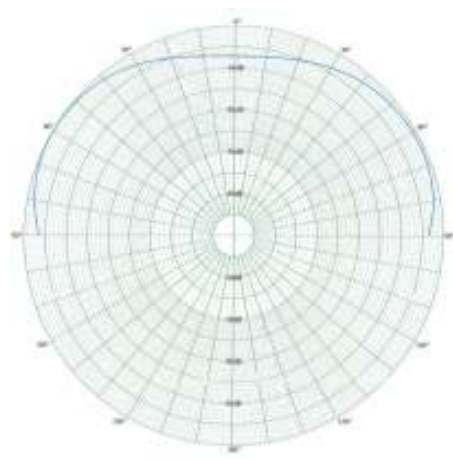
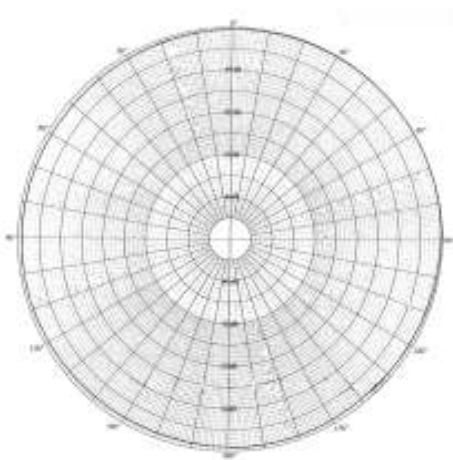
ADMITTANCE

BroadBand 012 Impedance



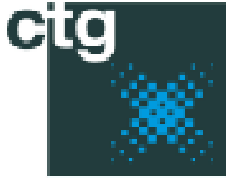
HORIZONTAL BEAM PATTERN @ 5kHz

VERTICAL BEAM PATTERN @ 5kHz



VARIATIONS

DualSense 012 is also available as an un-tuned option.



*** Please contact CTG for further information

In view of our policy of continual improvement, the designs and specifications of our products may vary from those described 2271-021-RS-A)

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