

# BroadBand 030 BROADBAND PROJECTOR



Typical Uses: Acoustic Reference Standards, Underwater Positioning Transducers, Environmental Monitoring

## FEATURES



The BroadBand 030 transducer is a horizontally omnidirectional transducer with an integrated tuning circuit (mounted in the anodized aluminum housing) to provide the exceptionally wide flat transmit and receive sensitivity response across the frequency range of 15-50kHz.

It is useful as an acoustic reference standard, for underwater positioning systems or for use in high frequency environmental monitoring systems.

The BroadBand 030 is made with a harder ceramic making it ideal transmitting applications. The BroadBand series are highly reliable transducers and come in a protective, durable polyurethane coating.

## ADVANTAGES

- Wide flat broadband response
- Horizontally omni-directional
- Versatile
- Durable and reliable construction

## ORDER NUMBER

CTG 0811-0259

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

## TECHNICAL SPECIFICATION

Nominal resonant frequency (without tuning)	30kHz
Integral pre amplifier or tuning element	Tuning Element
Receive Sensitivity @ 20 kHz	-181 dB re 1V/ $\mu$ Pa
Recommended receive frequency range	16-40kHz
Linear frequency range	N/a
Maximum acoustic input @20kHz	+ 232.5 dB re 1 $\mu$ Pa
Transmit sensitivity @ 32kHz	+147 dB re 1 $\mu$ Pa/V at 1m
-3dB bandwidth	9 kHz
Quality Factor	3.5
Recommended transmit frequency range	15-50kHz
Maximum source level @ 32kHz	+ 198 dB re 1 $\mu$ Pa at 1m
Maximum applied voltage	240Vrms
Low Frequency capacitance (@ 1kHz)	13.5 nF
Horizontal beam pattern	Omnidirectional +/- 2 dB at 30 kHz
Vertical beam pattern	>270°

## MECHANICAL SPECIFICATION

Dimensions	Maximum outer diameter 97mm, Length 250mm
Transducer mass in air	1.7 kg
Approximate Transducer mass in water	0.7 kg
Maximum recommended operating depth	600m
Survival depth	1200m
Operating temperature range	-5 to +35°C
Cable	Flying lead with female connector
Connector	Subconn LPBH4M
Mounting	N/a

## MECHANICAL DRAWING

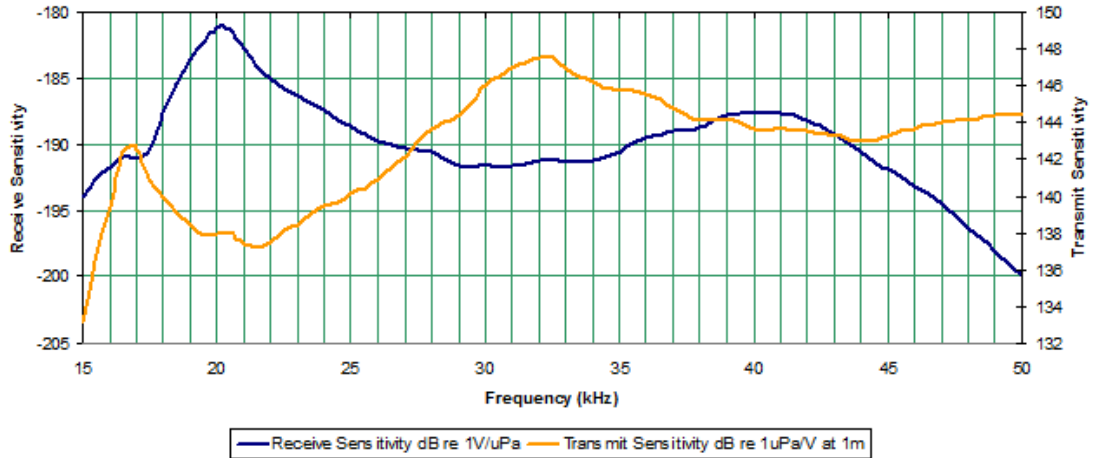
\*\*\*

## CONNECTOR LAYOUT

Pin	Signal Name
1	N/a
2	+Signal
3	-Signal
4	N/a
Screen	Gnd

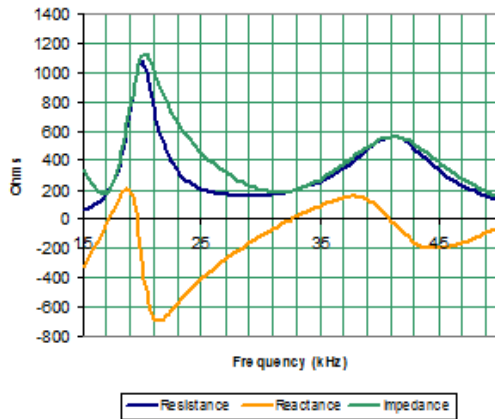
# SENSITIVITY

BroadBand 030 Sensitivity



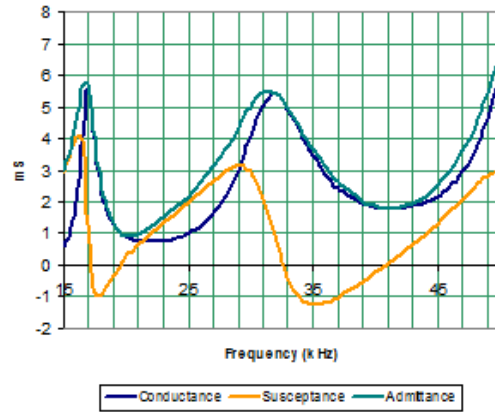
# IMPEDANCE

BroadBand 030 Impedance



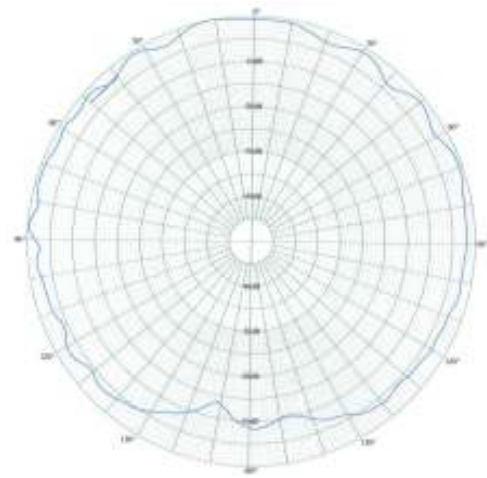
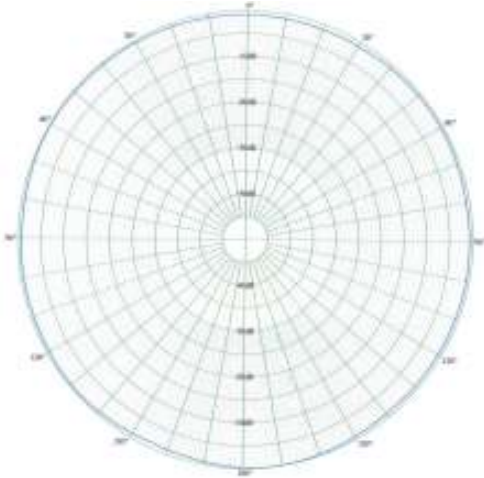
# ADMITTANCE

BroadBand 030 Admittance



# HORIZONTAL BEAM PATTERN @ 30 kHz

# VERTICAL BEAM PATTERN @ 30 kHz



## VARIATIONS

The DualSense 030 is also available as an un-tuned spherical transducer with 30kHz resonant frequency.



\*\*\* 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 2271-019-RS-A)

Chelsea  
Technologies  
Group Ltd

55 Central Avenue  
West Molesey  
Surrey KT8 2QZ  
United Kingdom  
Tel: +44 (0)20 8481 9000  
Fax: +44 (0)20 8941 9319  
sales@chelsea.co.uk  
www.chelsea.co.uk