

# BroadBand 150 BROADBAND PROJECTOR



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

## FEATURES



The BroadBand 150 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 110-200kHz.

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

The BroadBand 150 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 0811-0261

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

## TECHNICAL SPECIFICATION

Nominal resonant frequency (without tuning)	150kHz
Integral pre amplifier or tuning element	Tuning Element
Receive Sensitivity @ 154 kHz	-203 dB re 1V/ $\mu$ Pa
Recommended receive frequency range	110-200kHz
Linear frequency range	110-200kHz
Maximum acoustic input @154kHz	+ 252 dB re 1 $\mu$ Pa
Transmit sensitivity @ 154 kHz	+148 dB re 1 $\mu$ Pa/V at 1m
-3dB bandwidth	42 kHz
Quality Factor	3.6
Recommended transmit frequency range	110kHz – 200kHz
Maximum source level @ 154kHz	+ 197 dB re 1 $\mu$ Pa at 1m
Maximum applied voltage	240Vrms
Low Frequency capacitance (@ 1kHz)	2.5 nF
Horizontal beam pattern	Omnidirectional +/- 5 dB at 110kHz
Vertical beam pattern	>270°

## MECHANICAL SPECIFICATION

Dimensions	Maximum outer diameter 104mm, Length 130mm
Transducer head weight in air	***
Transducer head weight in water	***
Maximum recommended operating depth	600m
Survival depth	1200m
Operating temperature range	-5 to +35°C
Cable	Flying lead with female connector
Connector	Subconn LPBH5M
Mounting	N/a

## MECHANICAL DRAWING

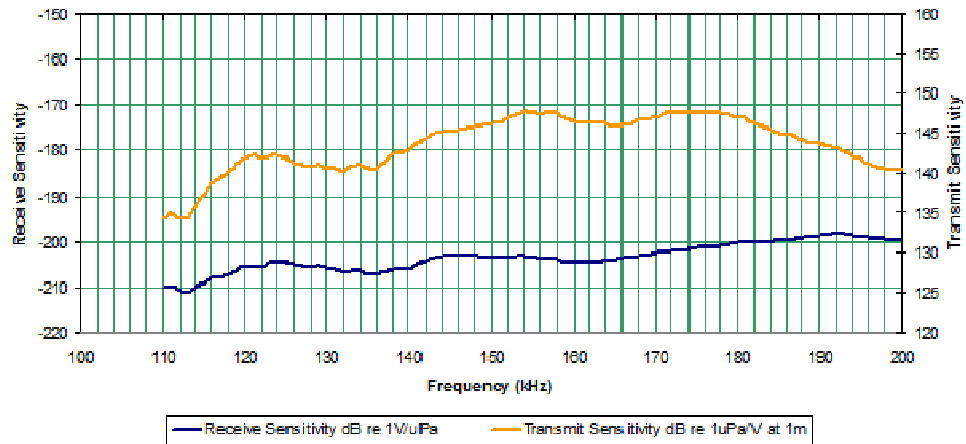
\*\*\*

## CONNECTOR LAYOUT

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

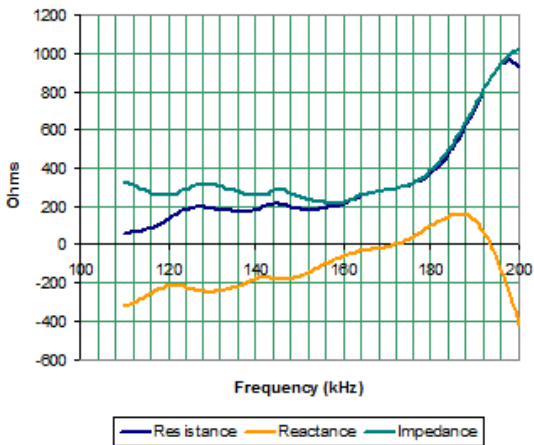
## SENSITIVITY

Broad Band 150 Sensitivity



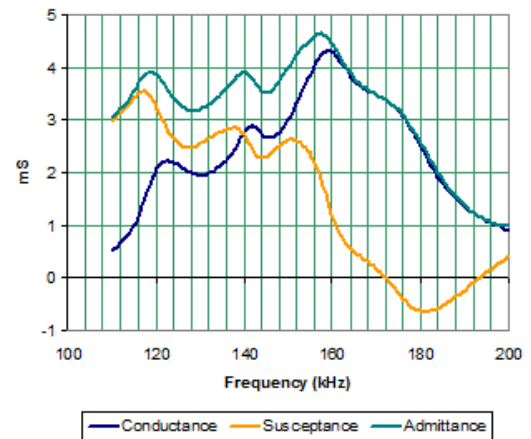
## IMPEDANCE

BroadBand 150 Impedance



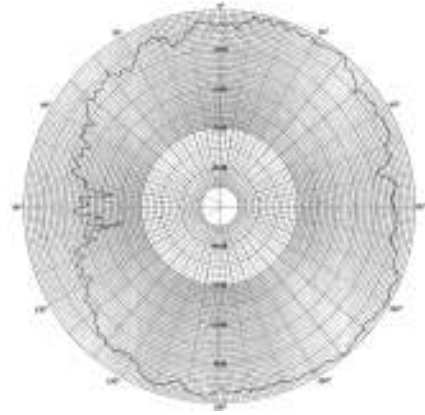
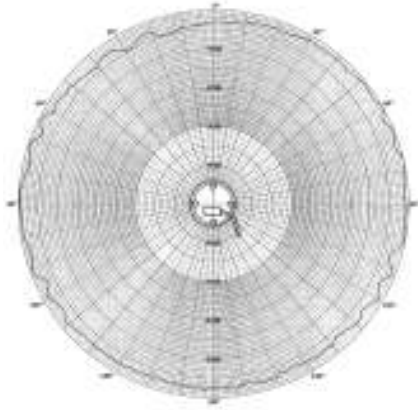
## ADMITTANCE

BroadBand 150 Admittance



## HORIZONTAL BEAM PATTERN @ 110kHz

## VERTICAL BEAM PATTERN @ 110kHz



## VARIATIONS

N/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

\*\*\* 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 2271-018-RS-A)