



Model Number	C55	C55RS	C304
Linear Frequency Range ( $\pm 3$ dB) [kHz]	0.016 – 44	0.016 – 50 & 122 – 250+	0.007 – 250+
Useable Frequency Range (+3/-20dB) [kHz]	0.006 – 203	0.006 – 82 & 92 – 250+	0.005 – 250+
Transducer Sensitivity [dB, re 1V/ $\mu$ Pa]	-185	-200	-203
Preamplifier Gain [dB]	20	20	34
Effective Sensitivity* [dB, re 1V/ $\mu$ Pa]	-165	-180	-169
SPL Equiv. Self Noise at 1kHz [dB, re 1 $\mu$ Pa]	42 (< <i>Sea State Zero</i> )	58	63
Power Requirement [Vdc]	5 to 32	5 to 32	5 to 32
RMS Overload Acoustic Pressure [dB, re 1 $\mu$ Pa]	169 to 186	184 to 201	173 to 190
Maximum Operating Depth <sup>†</sup> [m]	460	460	460
Operating Temperature Range [°C]	-40 to 60	-40 to 60	-40 to 60
Output Impedance [ $\Omega$ ]	2.5	2.5	2.5
Dimensions [mm]	119L x (25 to 16) dia.	119L x (25 to 16) dia.	83L x 32W x (25 to 6)T
Integral Connector <sup>‡</sup>	Subconn MCBH3MSS	Subconn MCBH3MSS	Subconn MCBH3MSS
Base Price [US dollars]	Please contact us	crinfo [at] cetaceanresearch dot com	206-297-1310

\* Add preamplifier gain to transducer sensitivity to get effective hydrophone sensitivity. <sup>†</sup> Append “-1k” to model number for depth rating >1000m. <sup>‡</sup> Connectors are rated to a depth of 7000m; see below for mating connector and cables. Calibrated frequency response measurements can be performed for an additional fee.

**Directionality:**

The C304 is very directional at high frequencies (e.g., 15° solid angle at 200 kHz, -3dB). This is also true of the C55, but its directionality will be focused in a plane rather than in a dipole pattern. All hydrophones are omnidirectional below 10kHz.

**Battery/Connector Box:**

Battery boxes are rated NEMA-4X water resistant. Signal connection is through a water-tight, BNC connector with gold center contact. The hydrophones are powered by a single 9V battery (not included) or an optional long-life, rechargeable, external power supply.

Standard Signal Output	Female BNC connector
Battery Life [hours]	>20
Box Dimensions [mm]	98 long x 64 wide x 40 high
Price [US dollars]	Contact us: crinfo [at] cetaceanresearch dot com or 206-297-1310

**Mating Connector & Cable:**

Connector molded to 15m of cable  
Connector molded to 30m of cable

Connector molded to 50m of cable  
Connector molded to custom length

**Additional Options:**

Headphone amplifier w/adapter cable  
High-pass filter  
Isolation Transformer  
External power supply  
Custom orders not listed above

**Selected Accessories (many more items available):**

TASCAM *US-122L* 24-bit/96kHz USB Interface  
Fender *Amp Can™* portable speaker  
M-Audio *MicroTrack II* Flash Recorder  
Sound Technology ST200 Preamplifier  
Fostex *FR-2* 24-bit/192kHz Flash Recorder

Hydrophones not in stock will ship within 6 weeks of the receipt of payment. Add 2 weeks to delivery time for custom orders. Acceptable payment includes: check or money order made out in US funds and drawn on a US bank; VISA, MasterCard, Discover or American Express cards; or money wire transfers. There is a \$30 added fee for foreign wire transfers. Qualifying nonprofit organizations may receive discounts.

All hydrophones carry a 90-day limited warranty. Extended warranties are available. Units will either be repaired or replaced at the discretion of Cetacean Research Technology. Misuse or damage to the connectors or cable voids the warranty.

Prices are for advance payment only (cash discounts are available) and subject to change without notice. All sales are final.



<b>Model Number</b>	<b>CR1</b>	<b>CR2</b>	<b>CR3 (preliminary)</b>
Linear Frequency Range ( $\pm 3$ dB) [kHz]	0.0002 <sup>†</sup> – 50	0.002 <sup>†</sup> – 28	0.0006 <sup>†</sup> – 125
Useable Frequency Range (+3/-20dB) [kHz]	0.00002 <sup>†</sup> – 110	0.0002 <sup>†</sup> – 250	0.0001 <sup>†</sup> – 250
Transducer Sensitivity [dB, re 1V/ $\mu$ Pa]	-198 <sup>‡</sup>	-214	-205 <sup>‡</sup>
SPL Equiv. Self Noise at 1kHz [dB, re 1 $\mu$ Pa]	TBD	TBD	TBD
Maximum Operating Depth [m]	100	460	250
Operating Temperature Range [°C]	-25 to 60 <sup>‡</sup>	-40 to 70	-40 to 60 <sup>‡</sup>
Capacitance [nF]	10	0.82	2.8
Dimensions [mm]	73L x 32 dia.	56L x 14 dia.	50L x 18 dia.
Coaxial Cable Length [m]	15	10	15
Directionality	Omni below 10kHz	Omni below 10kHz	Omnidirectional
Base Price [US dollars]	Please contact us	crinfo [at] cetaceanresearch dot com	206-297-1310

<sup>†</sup> Requires a preamplifier with 100M  $\Omega$  input impedance. If a preamplifier with 1M  $\Omega$  input impedance is used, then the low frequency -3dB point will be increased by a factor of 100 (e.g. 2Hz instead of 0.02Hz). <sup>‡</sup> Hydrophone is spot calibrated at the factory; calibration is guaranteed between -5C and 30C. Calibrated frequency response measurements can be performed for an additional fee.

**Additional Options and Selected Accessories (many more items available):**

Terminate cable with BNC or 1/4" connector  
Additional cable length  
ART *USB Dual Pre* Preamp with USB  
Fender *Amp Can*<sup>TM</sup> portable speaker

Sound Technology *ST200* Preamplifier  
Reson *VP1000* Preamplifier  
Sound Technology *ST191* DAQ  
*ST1400ENV* Mobile Data Recorder & SLM

Hydrophones not in stock will ship within 6 weeks of the receipt of payment. Add 2 weeks to delivery time for custom orders. Acceptable payment includes: check or money order made out in US funds and drawn on a US bank; VISA, MasterCard, Discover or American Express cards; or money wire transfers. There is a \$30 added fee for foreign wire transfers. Qualifying nonprofit organizations may receive discounts.

All hydrophones carry a 90-day limited warranty. Extended warranties are available. Units will either be repaired or replaced at the discretion of Cetacean Research Technology. Misuse or damage to the connectors or cable voids the warranty.

Prices are for advance payment only (cash discounts are available) and subject to change without notice. All sales are final.