Hydrophone Calibration Services

Standard Calibrations--available for Onda Hydrophones Only

Order Number	Frequency			With New Hydrophone				Re-Calibration
	From	To	Step	EOC(1)	HM Hydrophone	With new Onda Amp (2)	Customer's Onda Amp	
HC-0.25-1	250 KHz	1 MHz	50 KHz	Request price	Request price	Request price	Request price	Request price
HC-0.25-20	250 KHz	20 MHz	50 KHz	-	-	Request price	Request price	Request price
HC-1-20	1 MHz	20 MHz	50 KHz	Included	Included	Request price	Request price	Request price
HC-20-40	20 MHz	40 MHz	2MHz	NA	Request price	Request price	Request price	Request price
HC-20-60	20 MHz	60 MHz	2MHz	NA	Request price	Request price	Request price	Request price
HC-AMP	AH/AG-20XX					Included	Request price	Request price
HC-G2 (3)	Any	Any	Any	-	-	Request price	Request price	Request price

NOTES:

1) - EOC (open circuit) calibration applies to hydrophones without integral amplifier

2) - New amplifier purchased with hydrophone

3) – additional calibration at 2nd gain setting for AH-2020 and AG-2020

All calibrations are traceable to a National Reference Standard, and are supplied with measurement uncertainties.

- All Onda Hydrophones are supplied with a calibration from 1-20 MHz. For HMA or HMB hydrophones, which have an integral amplifier, this calibration is supplied into a 50 ohm impedance. All other models are modular, allowing substitution of a variety of different amplifiers, and are therefore supplied with an EOC (end-of-connector, open circuit) calibration.
- For an EOC calibration, the sensitivity with a preamplifier attached may be calculated if the preamplifier gain and input impedance are known, using well-established methods (see AIUM, *Acoustic Output Measurement Standard for Diagnostic Ultrasound Equipment*, Sec. 3.3.1. Standard calibrations are performed only for Onda hydrophones, in either EOC configuration or with an Onda amplifier without additional cables or adaptors between the hydrophone and amplifier. Calibrations made with either an integral or modular amplifier are made with a 50 ohm terminating impedance. Onda may be able to calibrate other configurations or other equipment on a customized basis. Contact us with a specification of your equipment and configuration and we will determine whether we can help.
- Calibrations will be made at room temperature (approximately 21 – 24 deg C) and the temperature will be recorded on the calibration sheet.
- Hydrophones with switchable-gain amplifiers (e.g., AH-2020 or AG-2020) will be measured at the gain setting which Onda determines provides the maximum calibration accuracy (usually the highest gain setting). For an additional fee, Onda can provide the calibration at a second gain setting, by compensating the measured data for the difference in gain between the two settings.
- Standard turn around for calibrations is 2 weeks, above 20 MHz takes up to 4 weeks.

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