Airmar introduces full line of broadband transducers for next generation for CHIRP & Spread-Spectrum fishfinder

Leading marine transducer manufacturer, Airmar Technology Corporation recently unveiled its new line of fully tunable, broadband transducers for sport and commercial fishing vessels. These transducers are designed to work with next-generation CHIRP, FM, and Spread-Spectrum fishfinders as they are introduced by marine electronics manufacturers in the months and years to come. “Broadband transducers represent the next generation of technology that will help fishermen to unlock new secrets in fishfinding,” said Stephen Boucher, CEO and founder of Airmar. “While broadband transducers enhance conventional echo sounder performance, maximum benefit is when they are driven by next-generation CHIRP and Spread Spectrum fishfinders.” Boucher added.

These revolutionary transducers continuously operate across a range of frequencies, rather than at the traditional dedicated frequencies of 50 kHz or 200 kHz. When transmitting at dedicated frequencies, targets that are smaller than the 50 kHz or 200 kHz sound wave may be undetected and therefore not shown on the fishfinder display. With CHIRP, the transmitted signal covers a wide band of frequencies, providing significant improvements in the ability to detect all targets in the water column. More bottom and water column area is covered as the beamwidth constantly changes from narrow to wide while the transducer is "chirped" across the specified band. It is proven that some fish species return better signals at specific frequencies, which makes CHIRP systems the optimal choice for fishfinding. Additional benefits include 25 to 50 times more energy on targets, enhanced detail and resolution, precise location (within inches) of fish in the water column or tight to the seabed, no noise interference, and extreme deep-water sounding below 10,000 ft.

Depending on the model, these transducers contain a low-frequency ceramic array capable of running at either 28 to 60 kHz or 42 to 65 kHz. To complement the deep-water detection, either a high-frequency or medium frequency broadband ceramic is also included. The high-frequency ceramics operate in the 130 to 210 kHz band.
The medium-frequency ceramics cover the 85 to 135 kHz band, which has historically been used in commercial fishing, especially 88 and 107 kHz—due to certain fish species being better detected at these frequencies.

This band has rarely been used in the sport fishing market, until now. Medium-frequency benefits include the ability to sound deeper than the high-frequency, along with better target resolution than the low-frequency. All low and high-frequency broadband transducers will carry an “LH” suffix after the model name while the low and medium-frequency transducers will carry an “LM” suffix after the model name.

The **R209LH** thru-hull transducer has 25 internal, broadband ceramic elements. The low-frequency can be chirped from 28 to 60 kHz while the high-frequency can be chirped from 130 to 210 kHz. Beamwidths range from 11° to 17° on the low-frequency band and 5° to 7° on the high-frequency band. This transducer is optionally available as **R209LM**, low and medium-frequency (80 to 130 kHz).

The **B265LH** thru-hull transducer has 8 internal, broadband ceramic elements. The low-frequency can be chirped from 42 to 65 kHz while the high-frequency chirps from 130 to 210 kHz. Beamwidths range from 18° to 25° on the low-frequency band and 6° to 10° on the high-frequency band. This transducer is optionally available as **B265LM**, low and medium-frequency (85 to 135 kHz).

Both units include a high-precision water-temperature sensor for accurate sea-surface temperature readings—critical to fishing success when tournament angling or making a living on the water. Both transducers also come with a High-Performance Fairing for crystal clear bottom imaging at vessel speeds over 30 knots.

The transducers detailed above are also available in various mounting styles to accommodate any vessel size and type. The in-hull R299LH / LM (25 ceramic elements-available Spring 2011) and M265LH / LM (8 ceramic elements-available Summer 2011) can install in the bilge of a solid fiberglass boat without drilling any hole in the hull. The commercial / keel mount CM299LH / LM (25 ceramic elements-available Spring 2011) and CM265LH / LM (8 ceramic elements-available Spring 2011) can mount in a commercial fishing vessel’s transducer tank. The transom-mount TM265LH / LM (8 ceramic elements-available Spring 2011) is best suited for smaller outboard and I/O powered vessels. All of these transducers have similar performance specifications to the R209 and B265 models detailed above.