Pocket/Keel Chirp Transducers

Unlock the true potential of your fishfinder with the superior quality and performance of an AIRMAR Chirp-ready transducer.

PM411LWM screenshot courtesy of Garmin

The Benefits of AIRMAR's Chirp-ready Transducers

- One broadband transducer covers up to 117 kHz of bandwidth – greater opportunities to detect fish in the water column
- Superior resolution precise separation between baitfish and gamefish represented on the display with crisp images
- Enhanced bottom fishing resolve targets close to the bottom or near structure/wrecks
- Amazing detail recognize haloclines and thermoclines
- Improved signal to noise ratio find fish and track bottom at high boat speeds



Benefits of Pocket Mount Transducers

A popular choice for boat builders, pocket mount transducers are installed within a small custom pocket in your vessel's hull or keel, flush to the surface. Though retrofit installation is possible, these transducers are most commonly used in vessels with a suitable pre-cut pocket.

Advantages:

- All the benefits of a thru-hull without the need for a high-performance fairing
- Can accommodate any deadrise angle based on pocket construction
- Can be used with all propulsion types
- Reliable, accurate sonar performance with less drag than thru-hull transducers



Why does frequency matter?

Selecting the best frequency for your specific application is very important. The good news is that once you know what frequency will work best for the type of fishing you do, there's an AIRMAR transducer designed to maximize the performance of your sounder.

AIRMAR Chirp transducers are available in various frequency combinations:

- · Dual Band:
 - Low/High (LH)
 - Low/Medium (LM)
 - Low/High Wide (LHW)
 - Low Wide/Medium (LWM)
- · Single Band:
 - Low
 - Medium
 - Medium Ultra Wide (MW)
 - Hiah
 - High Wide

Low Frequency = Greater Depth (ex. 42-65 kHz)

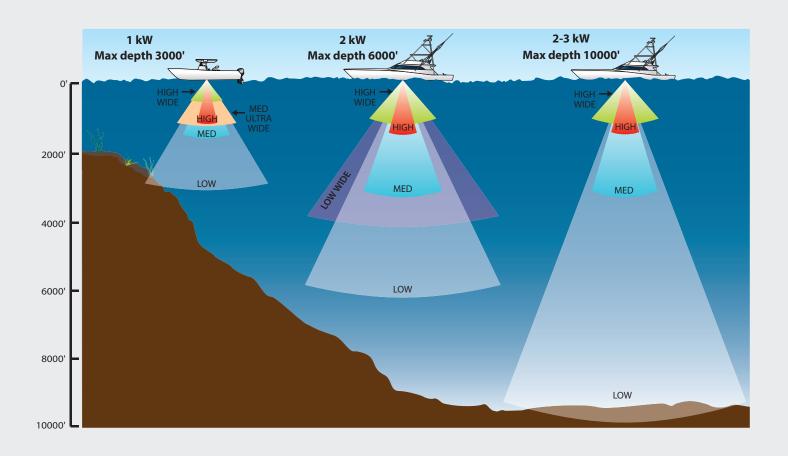
- Sound waves will not present as clear a picture of the bottom on the display, but will sound down in very deep areas where high frequency sound waves cannot reach
- Provides greater depth range, wider beamwidth, and ultimately more coverage under the boat
- Chirp signal processing technology used with AIRMAR broadband, Chirp-ready transducers provides more detail at greater depths and is less susceptible to noise
- Great for operating at high boat speeds

High Frequency = Greater Detail (ex. 130-210 kHz)

- More sensitive to small targets and will send back detailed information which will display as crisp, high-resolution images on the echosounder screen
- Best for shallower water and popular with anglers fishing at depths less than 1500 feet

Medium Frequency = The Best of Both Worlds (ex. 80-130 kHz)

- Provides the ability to sound deeper than the high frequency, along with better resolution than the low frequency
- Wider beam than the high frequency, achieving more coverage under the boat and greater opportunity to find fish
- Clear images at higher boat speeds

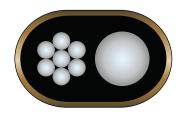


Pocket/Keel Mount

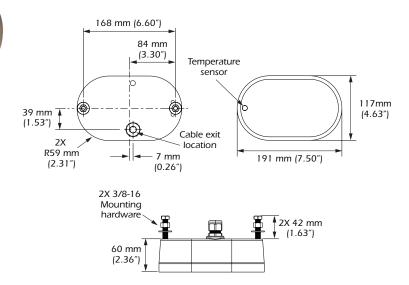
1 kW

Features:

- Depth & fast-response water-temperature sensor
- Hull Type: Fiberglass and metal stepped, planing or displacement hull types
- Hull Deadrise: Can accommodate any deadrise angle
- Engine Type: Can be used with all propulsion types



8-Internal Broadband Ceramic Assemblies



PM265LH

Low & High Frequency

- Low—42 kHz to 65 kHz
 25° to 16° beamwidth
 Maximum depth 3000 ft
- High—130 kHz to 210 kHz
 10° to 6° beamwidth
 Maximum depth 1000 ft
- 103 kHz of total bandwidth from one transducer

PM265LM

Low & Medium Frequency

- Low—42 kHz to 65 kHz
 25° to 16° beamwidth
 Maximum depth 3000 ft
- Medium—85 kHz to 135 kHz
 16° to 11° beamwidth
 Maximum depth 1500 ft
- 73 kHz of total bandwidth from one transducer



PM275LHW

Low & High Frequency Wide-Beam

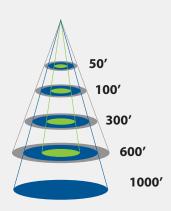
- Low—42 kHz to 65 kHz
 25° to 16° beamwidth
 Maximum depth 3000 ft
- High—150 kHz to 250 kHz
 25° constant beamwidth
 Maximum depth 500 ft
- 123 kHz of total bandwidth from one transducer

Bottom Coverage Relative to Frequency and Depth

	Beam Coverage at Highest Frequency			
Depth	PM265LH 130 kHz-210 kHz	PM265LM 85 kHz-135 kHz	PM275LHW 150 kHz-250 kHz	
50 ft	10 ft	16 ft	24 ft	
100 ft	20 ft	28 ft	46 ft	
300 ft	58 ft	84 ft	132 ft	
600 ft	104 ft	168 ft	266 ft	
1000 ft	Too Deep	282 ft	Too Deep	

This chart compares the high and medium ceramic elements inside the transducer, showing the difference in bottom coverage under the boat.

The low frequency in each of these transducer models is the same (42 kHz-65 kHz). The maximum depth range sounds to 3,000 ft.





Pocket/Keel Mount

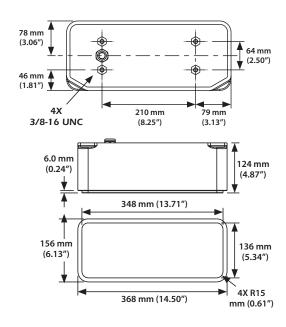
2 kW

Features:

- Depth & fast-response water-temperature sensor
- Hull Type: Fiberglass and metal stepped, planing or displacement hull types
- · Hull Deadrise: Can accommodate any deadrise angle
- Engine Type: Can be used with all propulsion types



16-Internal Broadband Ceramic Assemblies



PM111LH

Low & High Frequency

- Low—38 kHz to 75 kHz
 19° to 10° port/star
 10° to 5° fore-aft beam
 Max. depth 6000 ft
- High—130 kHz to 210 kHz 8° to 4° beamwidth Max. depth 1500 ft
- 117 kHz of total bandwidth from one transducer

PM111LM

Low & Medium Frequency

- Low—38 kHz to 75 kHz
 19° to 10° port/star
 10° to 5° fore-aft beam
 Max. depth 6000 ft
- Medium—80 kHz to 130 kHz 13° to 8° beam Max. depth 3000 ft
- 87 kHz of total bandwidth from one transducer

PM111LHW

Low & <u>High Frequency</u> Wide-Beam

- Low—38 kHz to 75 kHz
 19° to 10° port/star
 10° to 5° fore-aft beam
 Max. depth 6000 ft
- High—150 kHz to 250 kHz 25° constant beam Max. depth 500 ft
- 137 kHz of total bandwidth from one transducer

ULTRA WIDE

PM411LWM

Low Wide-Beam &

Medium Frequency

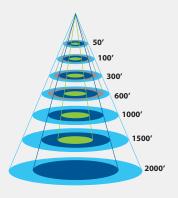
- Low—40 kHz to 60 kHz 40° constant beam Max. depth 4000 ft
- Medium—80 kHz to 130 kHz 13° to 8° beam Max. depth 3000 ft
- 70 kHz of total bandwidth from one transducer

Bottom Coverage Relative to Frequency and Depth

	Beam Coverage at Highest Frequency				
Depth	PM111LH 130 kHz- 210 kHz	PM111LM 80 kHz- 130 kHz	PM111LHW 150 kHz- 250 kHz	PM411LWM 40 kHz- 60 kHz	
50 ft	6 ft	12 ft	22 ft	36 ft	
100 ft	14 ft	22 ft	46 ft	70 ft	
300 ft	42 ft	68 ft	134 ft	220 ft	
600 ft	84 ft	136 ft	266 ft	438 ft	
1000 ft	140 ft	228 ft	Too Deep	730 ft	
1500 ft	210 ft	342 ft	Too Deep	1090 ft	
2000 ft	Too Deep	456 ft	Too Deep	1456 ft	

This chart compares the high and medium ceramic elements inside the transducer, showing the difference in bottom coverage under the boat.

Low frequency in each of these transducers models is the same (38-75 kHz) except the PM411LWM. This low frequency can range to 4,000 ft.



PM111LH – High Frequency 130 kHz-210 kHz

PM111LM – Medium Frequency 80 kHz-130 kHz

PM111LHW – High Frequency Wide-Beam 150 kHz-250 kHz

PM411LWM – Ultra Wide Low Frequency 40 kHz-60 kHz

Pocket/Keel Mount

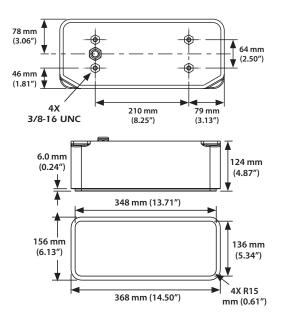
2-3 kW

Features:

- Depth & fast-response water-temperature sensor
- Hull Type: Fiberglass and metal stepped, planing or displacement hull types
- Hull Deadrise: Can accommodate any deadrise angle
- Engine Type: Can be used with all propulsion types



25-Internal Broadband Ceramic Assemblies



CM599LH

Low & High Frequency

- Low—28 kHz to 60 kHz
 23° to 9° port-starboard
 11° to 5° fore-aft beamwidth
 Maximum depth 10000 ft
- High—130 kHz to 210 kHz 8° to 4° beamwidth Maximum depth 1500 ft
- 112 kHz of total bandwidth from one transducer

CM599LM

Low & Medium Frequency

- Low—28 kHz to 60 kHz
 23° to 9° port-starboard
 11° to 5° fore-aft beamwidth
 Maximum depth 10000 ft
- Medium—80 kHz to 130 kHz
 13° to 8° beamwidth
 Maximum depth 3000 ft
- 82 kHz of total bandwidth from one transducer

WIDE

CM599LHW

Low & High Frequency Wide-Beam

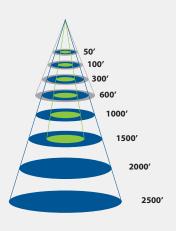
- Low—28 kHz to 60 kHz
 23° to 9° port-starboard
 11° to 5° fore-aft beamwidth
 Maximum depth 10000 ft
- High—150 kHz to 250 kHz
 25° constant beamwidth
 Maximum depth 500 ft
- 132 kHz of total bandwidth from one transducer

Bottom Coverage Relative to Frequency and Depth

	Beam Coverage at Highest Frequency			
Depth	CM599LH 130 kHz-210 kHz	CM599LM 80 kHz-130 kHz	CM599LHW 150 kHz-250 kHz	
50 ft	6 ft	12 ft	22 ft	
100 ft	14 ft	22 ft	42 ft	
300 ft	42 ft	70 ft	134 ft	
600 ft	84 ft	136 ft	264 ft	
1000 ft	140 ft	228 ft	Too Deep	
1500 ft	Too Deep	342 ft	Too Deep	
2000 ft	Too Deep	456 ft	Too Deep	

This chart compares the high and medium ceramic elements inside the transducer, showing the difference in bottom coverage under the boat.

Low frequency in each of these transducer models is the same (28 kHz - 60 kHz). The maximum depth range sounds to 10,000 ft.



CM599LH – High Frequency 130 kHz-210 kHz CM599LM – Medium Frequency 80 kHz-130 kHz

> CM599LHW – High Frequency Wide-Beam 150 kHz-250 kHz

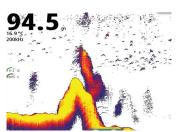
The Chirp Advantage

Traditional sounders operate at only two discrete frequencies – typically 50 kHz and 200 kHz. This results in limited depth range, resolution, and ultimately what targets can be detected in the water column.

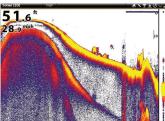
In contrast, AIRMAR's game-changing Chirp-ready transducers provide over 70+ kHz of bandwidth. Transmitting over a wide frequency band results in a greater opportunity to detect what is in the water column. As a result, all targets detected in the entire bandwidth will be seen on the display-even those fish holding close to the bottom-ultimately improving target detection, detail, and range resolution.

Most Chirp transducers vary their beam width as they sweep through their frequency range (low, medium, and high). At the lowest frequency the beam is the widest and it narrows as the frequency increases.

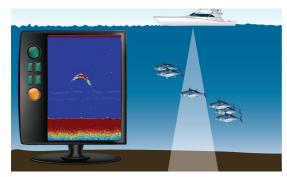
AIRMAR's new wide beam Chirp transducers are the exception to this rule and have a fixed beam width of either 25° or 40° across the frequency band. This translates into even more coverage under the boat, revealing more fish in the water column than ever before.

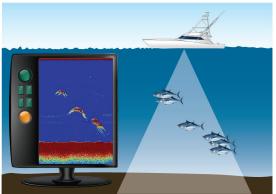


Courtesy of Navico

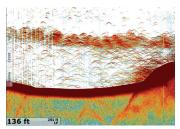


Courtesy of Humminbird

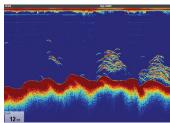




The fish must be in the beam to be represented on the display.



Courtesy of Furuno



Courtesy of Raymarine

Additional Mounting Options

Choosing your mounting option depends on the design of the hull as well as the material it's manufactured with, the boats intended use, and the desired level of performance.











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Pocket_Keel_Mount Chirp_BR_rH 3/29/24

