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 137 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)
 - Medium Ultra Wide/High Wide
- Single Band:
 - Low
 - Medium
 - Medium Ultra Wide (MW)
 - Hiah
 - High Wide

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

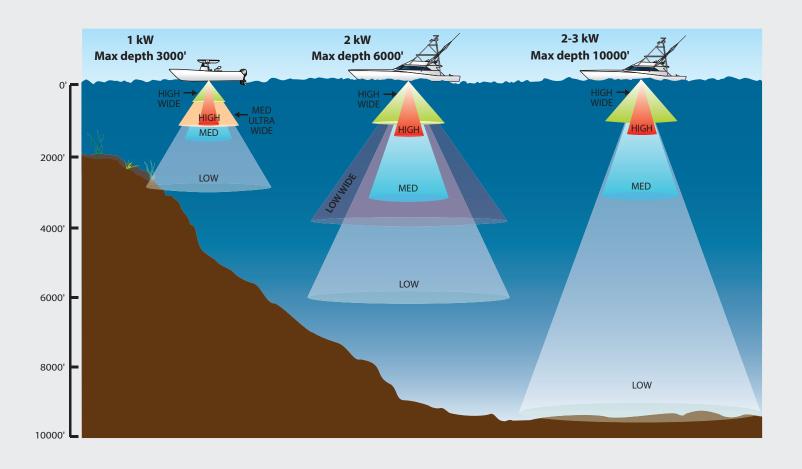
- Sound waves will not present as clear a picture of the bottom on the display, but will sound down in very deep areas where high frequency sound waves cannot reach
- Provides greater depth range, wider beamwidth, and ultimately more coverage under the boat
- Chirp signal processing technology used with 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

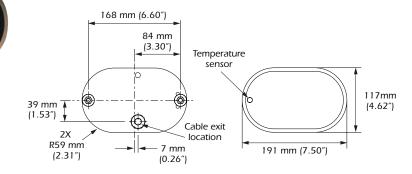


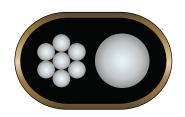
Pocket/Keel Mount

1 kW

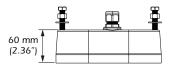
Features:

- 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 Max. depth 914 m (3000')
- High—130 kHz to 210 kHz 10° to 6° beamwidth Max. depth 304 m (1000')
- 103 kHz of total bandwidth from one transducer

PM265LM

Low & Medium Frequency

- Low—42 kHz to 65 kHz 25° to 16° beamwidth Max. depth 914 m (3000')
- Medium—85 kHz to 135 kHz 16° to 11° beamwidth Max. depth 457 m (1500')
- 73 kHz of total bandwidth from one transducer



PM275LHW

Low & High Frequency Wide-Beam

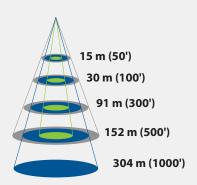
- Low—42 kHz to 65 kHz 25° to 16° beamwidth Max. depth 914 m (3000')
- High—150 kHz to 250 kHz 25° constant beamwidth Max. depth 152 m (500')
- 123 kHz of total bandwidth from one transducer

Bottom Coverage Relative to Frequency and Depth

	Bottom Coverage at Widest Beam				
Depth	PM265LH 130 kHz-210 kHz	PM265LM 85 kHz-135 kHz	PM275LHW 150 kHz-250 kHz		
15 m (50')	3 m (10')	5 m (16')	7 m (24')		
30 m (100')	6 m (20')	9 m (28')	14 m (46')		
91 m (300')	18 m (58')	26 m (84')	40 m (132')		
152 m (500')	27 m (88')	42 m (140')	68 m (222')		
304 m (1000')	Too Deep	86 m (282')	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 914 m (3000').





Pocket/Keel Mount

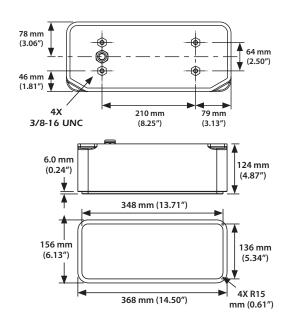
2 kW

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 1829 m (6000')
- High—130 kHz to 210 kHz 8° to 4° beamwidth Max. depth 457 m (1500')
- 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 1829 m (6000')
- Medium—80 kHz to 130 kHz 13° to 8° beam Max. depth 914 m (3000')
- 87 kHz of total bandwidth from one transducer

PM111LHW

Low & High Frequency Wide-Beam

- Low—38 kHz to 75 kHz
 19° to 10° port/star
 10° to 5° fore-aft beam
 Max. depth 1829 m (6000')
- High—150 kHz to 250 kHz 25° constant beam Max. depth 152 m (500')
- 137 kHz of total bandwidth from one transducer

ULTRA WIDE

PM411LWM

Low Frequency Utra Wide-Beam & Medium Frequency

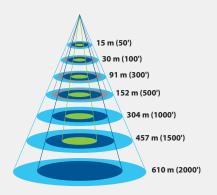
- Low—40 kHz to 60 kHz 40° constant beam Max. depth 1219 m (4000')
- Medium—80 kHz to 130 kHz 13° to 8° beam Max. depth 914 m (3000')
- 70 kHz of total bandwidth from one transducer

Bottom Coverage Relative to Frequency and Depth

	Bottom Coverage at Widest Beam				
Depth	PM111LH 130 kHz- 210 kHz	PM111LM 80 kHz- 130 kHz	PM111LHW 150 kHz- 250 kHz	PM411LWM 40 kHz- 60 kHz	
15 m (50')	2 m (6')	4 m (12')	7 m (22')	11 m (36')	
30 m (100')	4 m (14')	7 m (22')	14 m (46')	21 m (70')	
91 m (300')	13 m (42')	21 m (68')	41 m (134')	67 m (220')	
152 m (500')	27 m (88')	35 m (114')	68 m (222')	111 m (364')	
304 m (1000')	43 m (140')	69 m (228')	Too Deep	222 m (730')	
457 m (1500')	64 m (210')	104 m (342')	Too Deep	332 m (1090')	
610 m (2000')	Too Deep	139 m (456')	Too Deep	444 m (1456')	

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 $1219 \,\mathrm{m}$ (4,000°).



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

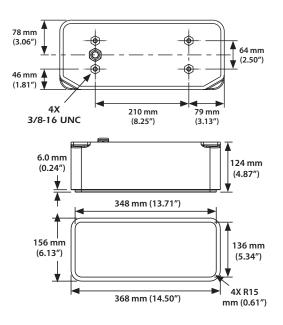
2-3 kW

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 Max. depth 3048 m (10000')
- High—130 kHz to 210 kHz 8° to 4° beamwidth Max. depth 457 m (1500')
- 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 Max. depth 3048 m (10000')
- Medium—80 kHz to 130 kHz 13° to 8° beamwidth Max. depth 914 m (3000')
- 82 kHz of total bandwidth from one transducer

WIDE

CM599LHW

Low & High Frequency Wide-Beam

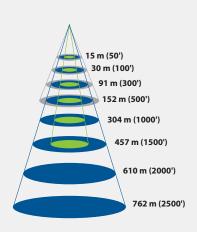
- Low—28 kHz to 60 kHz
 23° to 9° port-starboard
 11° to 5° fore-aft beamwidth
 Max. depth 3048 m (10000')
- High—150 kHz to 250 kHz 25° constant beamwidth Max. depth 152 m (500')
- 132 kHz of total bandwidth from one transducer

Bottom Coverage Relative to Frequency and Depth

	Bottom Coverage at Widest Beam			
Depth	CM599LH 130 kHz-210 kHz	CM599LM 80 kHz-130 kHz	CM599LHW 150 kHz-250 kHz	
15 m (50')	2 m (6')	4 m (12')	7 m (22')	
30 m (100')	4 m (14')	7 m (22')	13 m (42')	
91 m (300')	13 m (42')	21 m (70')	41 m (134')	
152 m (500')	21 m (70')	35 m (114')	68 m (222')	
304 m (1000')	43 m (140')	69 m (228')	Too Deep	
457 m (1500')	Too Deep	104 m (342')	Too Deep	
610 m (2000')	Too Deep	139 m (456')	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 3048 m (10000').





The Chirp Advantage

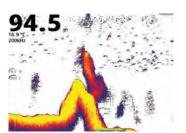
Traditional sounders operate at only two discrete frequencies – typically 50 kHz and 200 kHz. This results in limited depth range, resolution, and ultimately what targets can be detected in the water column.

In contrast, AIRMAR's game-changing Chirp-ready transducers provide over 70+ kHz of bandwidth.

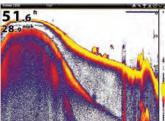
Transmitting over a wide frequency band results in a greater opportunity to detect what is in the water column. As a result, all targets detected in the entire bandwidth will be seen on the display–even those fish holding close to the bottom–ultimately improving target detection, detail, and range resolution.

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.

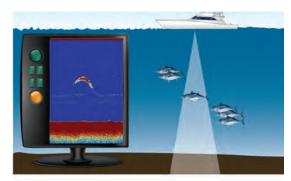
AIRMAR's new wide beam Chirp transducers are the exception to this rule and have a fixed beam width of either 25° or 40° across the frequency band. This translates into even more coverage under the boat, revealing more fish in the water column than ever before.

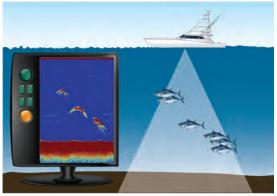


Courtesy of Navico

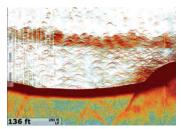


Courtesy of Humminbird

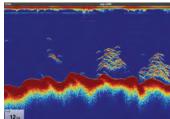




The fish must be in the beam to be represented on the display.



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.











www.airmar.com

©Airmar Technology Corporation

Pocket_Keel_Mount Chirp_BR_rl 05/07/25

As Airmar constantly improves its products, all specifications are subject to change without notice. All Airmar products are designed to provide high levels of accuracy and reliability, however they should only be used as aids to navigation and not as a replacement for traditional navigation aids and techniques. Xducer ID' is a registered trademark of Airmar Technology Corporation. Other company or product names mentioned in this document may be trademarks or registered trademarks of their respective companies, which are not affiliated with Airmar.