

**95 to 155 kHz-A (Broadband)**  
Transformed to 100 ohms minimum (B1)

Power Rating:

- 300 W @ 1% duty cycle
- CW<sup>(4)</sup>: 5W in TM150

33 mm (1.3 in) PZT

Active Area: 8.6 cm<sup>2</sup> (1.33 in<sup>2</sup>)

Radiating Surface: Plastic/Urethane

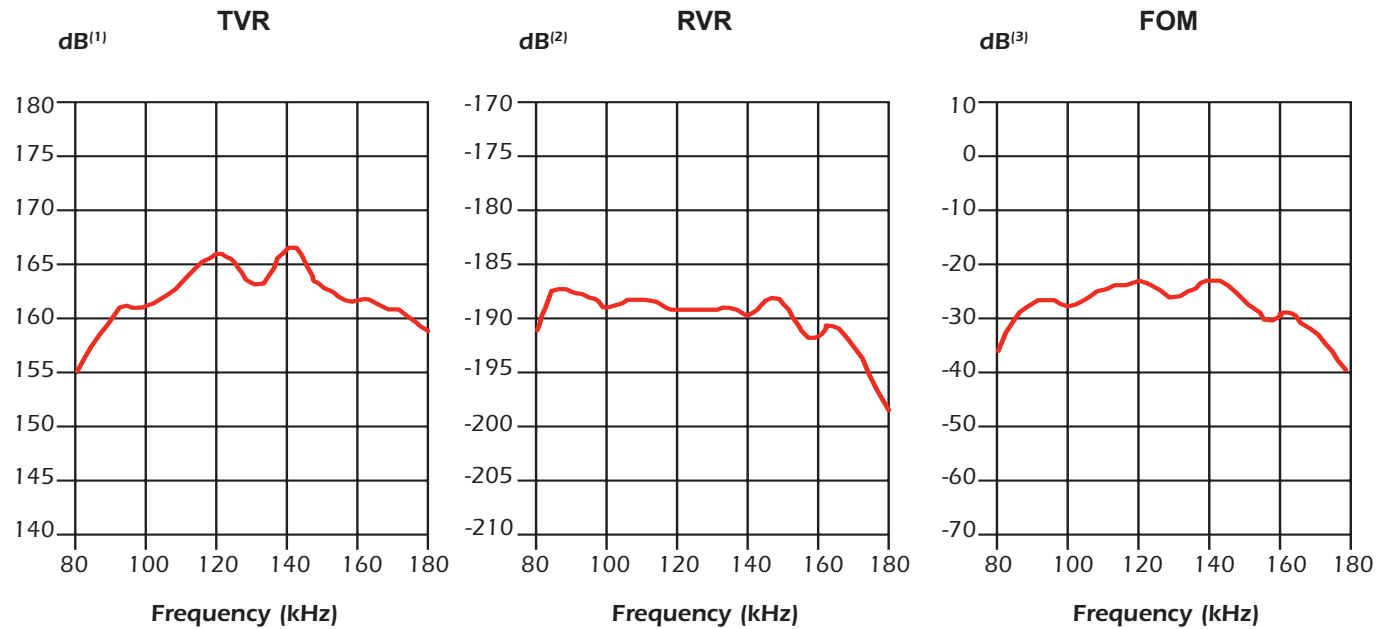
Q ≈ 2

Cable Type: C332

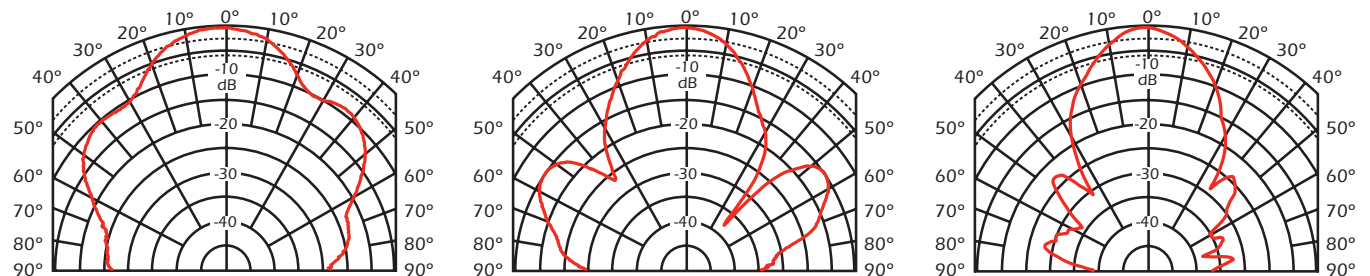
Cable Length: 12.2 m (40 ft)

Notes:

- (1) dB re 1 μPa per volt at 1 meter
- (2) dB re 1 volt per μPa
- (3) Sum of transmitting voltage response and receiving voltage response
- (4) CW Power ratings is for 20°C seawater temperature. Consult Airmar for different housing CW ratings.



**Transmit Radiation Pattern**



Beamwidth	@ 100 kHz
-3 dB	26°
-6 dB	36°
-10 dB	48°

Beamwidth	@ 130 kHz
-3 dB	20°
-6 dB	28°
-10 dB	38°

Beamwidth	@ 155 kHz
-3 dB	17°
-6 dB	27°
-10 dB	37°



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# Technical Data Catalog

## 95 to 155 kHz-A (Broadband)

Note: Impedance data includes cable

**Balanced Impedance Table (Nominal Value) in 20°C Water**

Test Frequency (kHz)	Impedance Magnitude (Ω)	Phase Angle (°)	Series Resistance (Ω)	Series Reactance (Ω)	Parallel Conductance (mS)	Parallel Susceptance (mS)	Parallel Resistance (Ω)	Parallel Capacitance (pF)
80.00	178.44	67.21	69.11	164.52	2.17	-5.17	460.73	-10278.73
82.00	199.11	58.75	103.28	170.23	2.61	-4.29	383.86	-8333.88
84.00	211.58	48.29	140.78	157.95	3.14	-3.53	317.99	-6684.97
86.00	210.94	37.52	167.30	128.47	3.76	-2.89	265.95	-5343.30
90.00	180.92	23.09	166.43	70.94	5.08	-2.17	196.67	-3832.67
92.00	167.53	21.50	155.88	61.40	5.55	-2.19	180.06	-3784.37
94.00	164.56	20.99	153.64	58.93	5.67	-2.18	176.25	-3684.85
96.00	166.98	17.95	158.85	51.45	5.70	-1.85	175.52	-3059.46
100.00	154.41	11.97	151.05	32.04	6.34	-1.34	157.85	-2138.58
102.00	153.02	11.81	149.78	31.33	6.40	-1.34	156.33	-2087.81
104.00	156.97	9.20	154.95	25.10	6.29	-1.02	159.02	-1558.93
106.00	156.66	5.33	155.98	14.54	6.36	-0.59	157.34	-889.60
110.00	145.30	-1.52	145.25	-3.85	6.88	0.18	145.35	263.51
112.00	136.73	-3.95	136.40	-9.42	7.30	0.50	137.06	716.22
114.00	128.11	-5.04	127.61	-11.25	7.78	0.69	128.60	956.61
116.00	119.12	-4.37	118.77	-9.07	8.37	0.64	119.47	877.47
120.00	108.19	0.96	108.18	1.81	9.24	-0.15	108.21	-205.08
122.00	109.22	5.42	108.74	10.31	9.11	-0.86	109.72	-1127.90
124.00	114.75	9.90	113.05	19.73	8.58	-1.50	116.49	-1923.29
126.00	125.70	12.08	122.92	26.30	7.78	-1.66	128.55	-2102.27
130.00	151.43	6.81	150.36	17.96	6.56	-0.78	152.51	-958.67
132.00	162.04	2.38	161.90	6.73	6.17	-0.26	162.18	-309.14
134.00	167.14	-5.39	166.40	-15.71	5.96	0.56	167.88	667.81
136.00	152.99	-14.45	148.15	-38.17	6.33	1.63	157.99	1908.51
140.00	114.09	-9.14	112.64	-18.13	8.65	1.39	115.56	1583.09
142.00	114.08	0.71	114.07	1.41	8.77	-0.11	114.08	-121.62
144.00	130.50	8.12	129.19	18.43	7.59	-1.08	131.82	-1196.05
146.00	159.78	8.97	157.83	24.91	6.18	-0.98	161.76	-1063.50
150.00	206.57	-5.14	205.74	-18.50	4.82	0.43	207.41	459.90
152.00	207.79	-13.71	201.87	-49.26	4.68	1.14	213.89	1194.55
154.00	198.87	-19.31	187.68	-65.78	4.75	1.66	210.73	1718.79
156.00	193.00	-21.28	179.84	-70.03	4.83	1.88	207.12	1918.21
160.00	192.88	-23.41	177.01	-76.63	4.76	2.06	210.18	2048.87
162.00	208.47	-23.87	190.63	-84.37	4.39	1.94	227.98	1907.37
164.00	230.93	-28.91	202.15	-111.64	3.79	2.09	263.81	2031.57
166.00	244.13	-37.53	193.60	-148.72	3.25	2.50	307.85	2392.46
170.00	232.28	-55.00	133.22	-190.28	2.47	3.53	404.99	3301.68
172.00	216.30	-62.14	101.09	-191.22	2.16	4.09	462.79	3782.00
174.00	198.16	-67.77	74.96	-183.43	1.91	4.67	523.85	4272.92
176.00	180.20	-71.90	55.97	-171.28	1.72	5.28	580.14	4770.12
180.00	150.66	-76.77	34.47	-146.66	1.52	6.46	658.53	5713.23



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**95 to 155 kHz-A (Broadband)**  
Transformed to 650 ohms minimum (B4)

Power Rating:

- 300 W @ 1% duty cycle
- CW<sup>(4)</sup>: 5W in TM150

33 mm (1.3 in) PZT

Active Area: 8.6 cm<sup>2</sup> (1.33 in<sup>2</sup>)

Radiating Surface: Plastic/Urethane

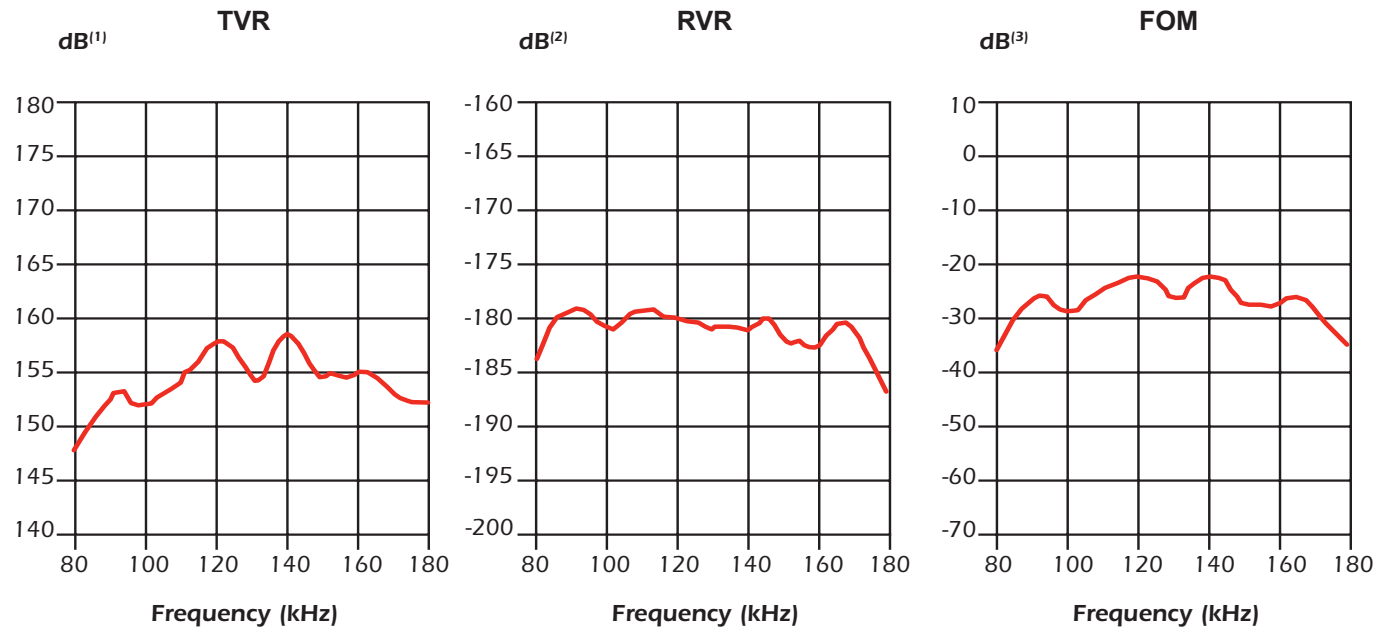
Q ≈ 2

Cable Type: C315

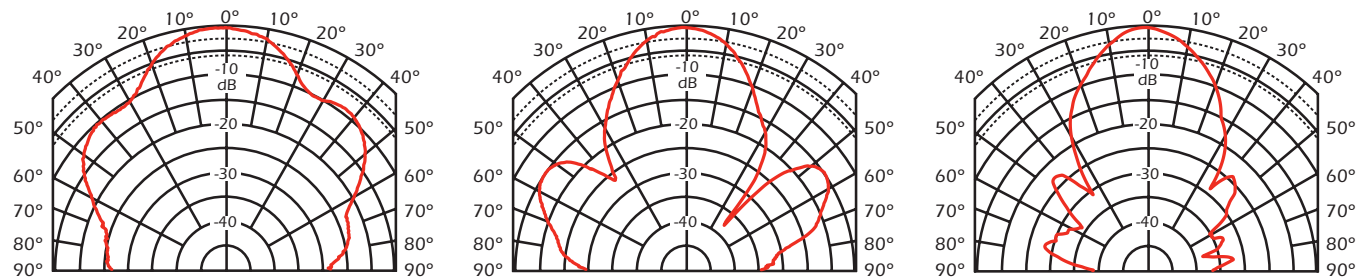
Cable Length: 12.2 m (40 ft)

Notes:

- (1) dB re 1 μPa per volt at 1 meter
- (2) dB re 1 volt per μPa
- (3) Sum of transmitting voltage response and receiving voltage response
- (4) CW Power ratings is for 20°C seawater temperature. Consult Airmar for different housing CW ratings.



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-3 dB	26°
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Beamwidth	@ 155 kHz
-3 dB	17°
-6 dB	27°
-10 dB	37°



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# Technical Data Catalog

## 95 to 155 kHz-A (Broadband) Transformed to 650 ohms minimum (B4)

Note: Impedance data includes cable

**Balanced Impedance Table (Nominal Value) in 20°C Water**

Test Frequency (kHz)	Impedance Magnitude (Ω)	Phase Angle (°)	Series Resistance (Ω)	Series Reactance (Ω)	Parallel Conductance (mS)	Parallel Susceptance (mS)	Parallel Resistance (Ω)	Parallel Capacitance (pF)
80.00	916.49	70.00	313.42	861.23	0.37	-1.03	2679.93	-2039.83
82.00	997.24	62.38	462.34	883.59	0.46	-0.89	2151.00	-1724.48
84.00	1041.05	53.67	616.71	838.72	0.57	-0.77	1757.38	-1466.28
86.00	1037.49	45.50	727.24	739.94	0.68	-0.69	1480.10	-1272.18
90.00	923.15	34.64	759.51	524.75	0.89	-0.62	1122.06	-1088.88
92.00	874.76	34.23	723.19	492.13	0.95	-0.64	1058.08	-1112.59
94.00	880.40	35.21	719.29	507.67	0.93	-0.66	1077.60	-1108.96
96.00	937.96	33.87	778.79	522.73	0.89	-0.59	1129.65	-985.06
100.00	945.48	24.77	858.50	396.11	0.96	-0.44	1041.27	-705.24
102.00	927.80	23.46	851.10	369.38	0.99	-0.43	1011.41	-669.55
104.00	947.77	22.24	877.26	358.74	0.98	-0.40	1023.96	-611.17
106.00	977.01	19.68	919.96	328.97	0.96	-0.34	1037.60	-517.46
110.00	1020.93	9.61	1006.59	170.52	0.97	-0.16	1035.48	-236.71
112.00	969.61	3.07	968.22	51.90	1.03	-0.06	971.01	-78.45
114.00	884.17	-1.33	883.93	-20.54	1.13	0.03	884.41	36.68
116.00	787.44	-2.88	786.44	-39.62	1.27	0.06	788.44	87.67
120.00	641.63	3.70	640.29	41.42	1.56	-0.10	642.97	-133.43
122.00	629.35	11.42	616.89	124.61	1.56	-0.31	642.07	-410.43
124.00	674.02	18.66	638.59	215.64	1.41	-0.47	711.41	-609.24
126.00	769.04	22.06	712.75	288.81	1.21	-0.49	829.78	-616.84
130.00	978.48	18.95	925.45	317.76	0.97	-0.33	1034.56	-406.32
132.00	1110.97	13.31	1081.13	255.77	0.88	-0.21	1141.64	-249.85
134.00	1152.81	0.89	1152.67	17.81	0.87	-0.01	1152.95	-15.91
136.00	987.85	-7.62	979.13	-131.01	1.00	0.13	996.66	157.11
140.00	748.89	0.97	748.78	12.74	1.34	-0.02	748.99	-25.82
142.00	760.08	11.01	746.10	145.11	1.29	-0.25	774.32	-281.53
144.00	868.55	19.58	818.32	291.06	1.08	-0.39	921.85	-426.44
146.00	1077.20	23.04	991.29	421.56	0.85	-0.36	1170.56	-396.03
150.00	1572.14	4.28	1567.75	117.38	0.63	-0.05	1576.54	-50.39
152.00	1428.87	-5.47	1422.36	-136.22	0.70	0.07	1435.41	69.86
154.00	1342.47	-4.58	1338.19	-107.14	0.74	0.06	1346.77	61.44
156.00	1389.17	-5.03	1383.82	-121.85	0.72	0.06	1394.54	64.42
160.00	1392.87	1.12	1392.61	27.12	0.72	-0.01	1393.13	-13.90
162.00	1697.04	7.69	1681.80	226.94	0.58	-0.08	1712.42	-77.42
164.00	2306.70	7.02	2289.40	282.00	0.43	-0.05	2324.13	-51.43
166.00	3240.10	-2.33	3237.41	-131.89	0.31	0.01	3242.79	12.04
170.00	4658.03	-59.88	2337.78	-4028.90	0.11	0.19	9281.12	173.84
172.00	3392.88	-82.65	434.08	-3365.00	0.04	0.29	26519.55	270.48
174.00	2531.45	-91.55	-68.63	-2530.52	-0.01	0.39	-93375.72	361.20
176.00	2038.93	-95.74	-203.98	-2028.70	-0.05	0.49	-20381.06	441.29
180.00	1489.48	-100.18	-263.18	-1466.05	-0.12	0.66	-8429.92	584.29



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