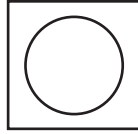


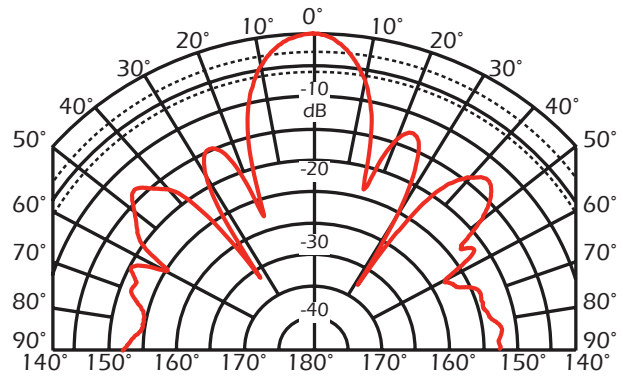
200 kHz-A

Power Rating: 300W @ 2% duty cycle
 27 mm (1.08") PZT
 Active Area: 5.7 cm²
 Radiating Surface:
 Layered HPC Window

Array



Transmit Radiation Pattern

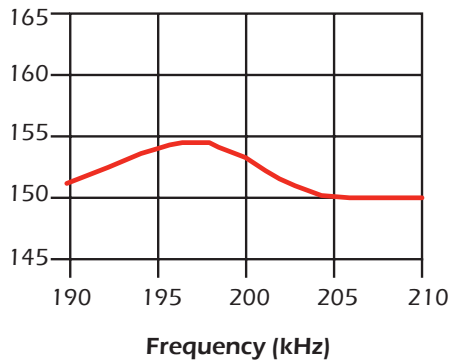


Beamwidth:

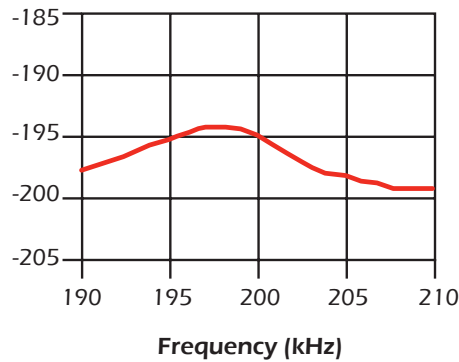
-3 dB: 15°
 -6 dB: 21°
 -10 dB: 26°

Directivity Index: 21
 Frequency Tolerance: ± 4 kHz
 Peak TVR⁽¹⁾, nominal: 154 dB
 Peak TVR⁽¹⁾, minimum: 152 dB
 Q (transmit): 17
 Peak Source Level⁽⁴⁾: 209 dB
 Peak RVR⁽²⁾, nominal: -194 dB
 Peak Figure of Merit⁽³⁾: -40 dB

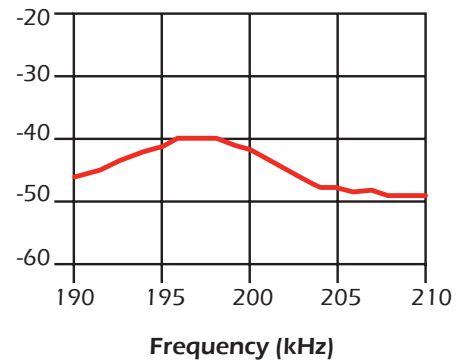
TVR dB⁽¹⁾



RVR dB⁽²⁾



FOM dB⁽³⁾



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) Nominal peak TVR, rated power, and no cavitation

Technical Data Catalog

200 kHz-A

27 mm (1.08") PZT

Cable Type: C33

Cable Length: 10 m (33')

Note:

Impedance data includes cable

Impedance Data	
	<i>Unbalanced</i>
Parallel: Rp.	1100 Ω: -20%, +40%
Parallel: Cp. (nominal)	1,900 pF
Series [R - jX]: (nominal)	100 - j390 Ω
1 kHz capacitance: (nominal)	1970 pF: ±20%

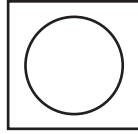
Unbalance Impedance Table

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)
190.00	349.40	-80.22	59.35	-344.32	0.49	2.82	2057.03	2362.58
191.00	346.84	-79.11	65.55	-340.59	0.54	2.83	1835.28	2359.19
192.00	345.60	-77.98	71.97	-338.03	0.60	2.83	1659.61	2345.92
193.00	345.99	-76.72	79.47	-336.73	0.66	2.81	1506.21	2319.71
194.00	348.77	-75.49	87.39	-337.65	0.72	2.78	1391.91	2277.17
195.00	353.95	-74.05	97.26	-340.33	0.78	2.72	1288.16	2217.15
196.00	360.74	-73.02	105.33	-345.03	0.81	2.65	1235.54	2152.86
197.00	371.47	-72.46	111.98	-354.19	0.81	2.57	1232.29	2073.70
198.00	383.26	-72.55	114.94	-365.62	0.78	2.49	1277.98	2000.74
199.00	395.26	-73.21	114.18	-378.40	0.73	2.42	1368.24	1937.16
200.00	404.04	-74.38	108.81	-389.11	0.67	2.38	1500.25	1896.77
201.00	407.98	-75.89	99.44	-395.67	0.60	2.38	1673.77	1882.30
202.00	410.35	-77.33	90.00	-400.36	0.53	2.38	1870.96	1873.32
203.00	408.20	-78.71	79.89	-400.31	0.48	2.40	2085.66	1883.51
204.00	403.53	-79.85	71.09	-397.22	0.44	2.44	2290.56	1903.13
205.00	398.79	-80.71	64.39	-393.56	0.40	2.47	2469.80	1921.24
206.00	391.28	-81.16	60.13	-386.63	0.39	2.53	2546.33	1951.08
207.00	388.21	-81.54	57.08	-384.00	0.38	2.55	2640.27	1958.99
208.00	382.50	-81.75	54.86	-378.54	0.38	2.59	2666.98	1979.76
209.00	378.52	-81.85	53.64	-374.70	0.37	2.62	2671.20	1991.49
210.00	374.07	-81.85	53.04	-370.29	0.38	2.65	2638.46	2005.56

200 kHz-A

Power Rating: 300 W rms @ 2% duty cycle
 27 mm (1.08") PZT
 Active Area: 5.7 cm²
 Layered Plastic Epoxy Window

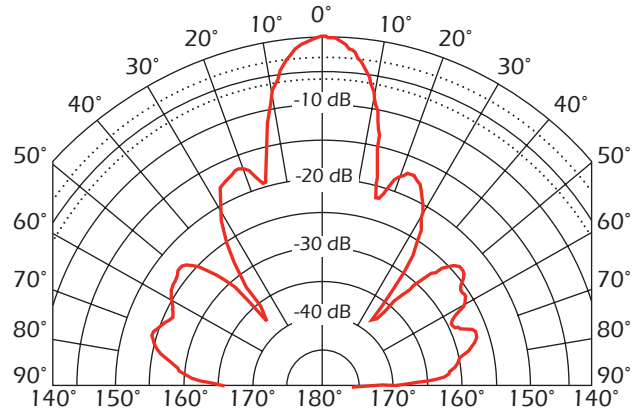
Array



Beamwidth:
 -3 dB: 13°
 -6 dB: 18°
 -10 dB: 22°

Directivity Index: 21
 Frequency Tolerance: ± 4 kHz
 Peak TVR⁽¹⁾, nominal: 159 dB
 Peak TVR⁽¹⁾, minimum: 156 dB
 Q (transmit): 26
 Peak Source Level⁽⁴⁾: 213 dB
 Peak RVR⁽²⁾, nominal: -188 dB
 Peak Figure of Merit⁽³⁾: -29 dB

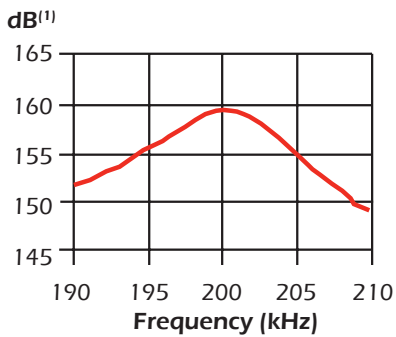
Transmit Radiation Pattern



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) Nominal peak TVR, rated power, and no cavitation

TVR



RVR

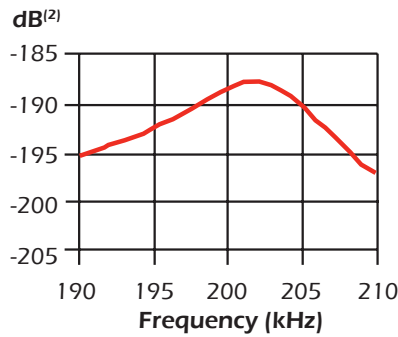
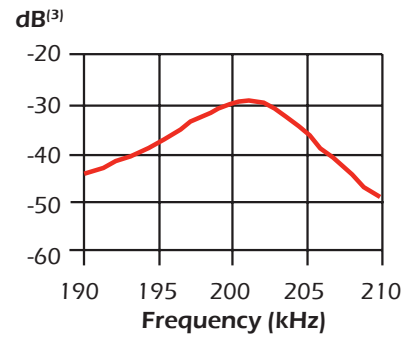


Figure of Merit



Technical Data Catalog

200 kHz-A

27 mm (1.08") PZT

Cable Type: C172

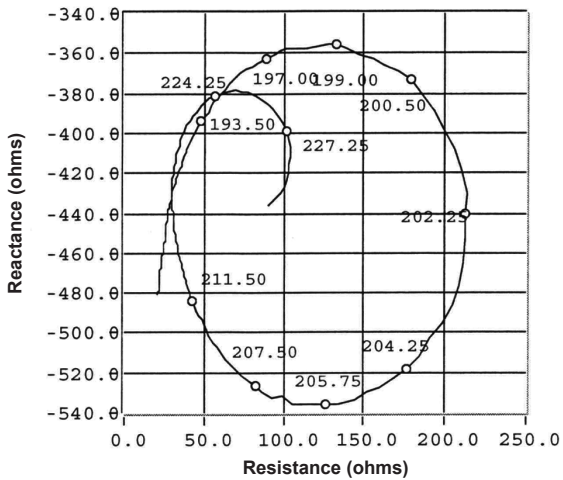
Cable Length: 10.1 m (33')

Note:

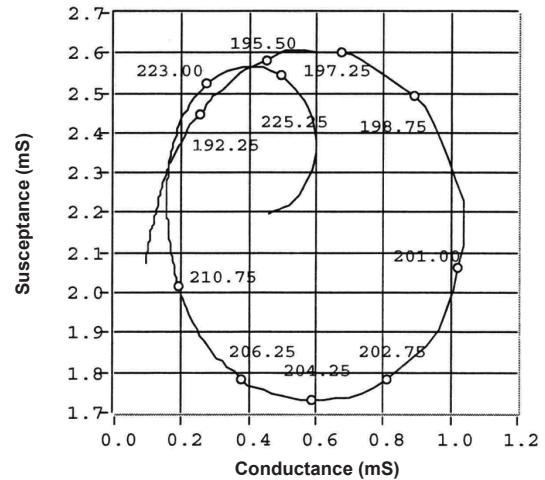
Impedance data includes cable

Impedance Data	
	<i>Unbalanced</i>
Parallel: Rp.	970 Ω: -20%, +40%
Parallel: Cp. (nominal)	1,630 pF
Series [R - jX]: (nominal)	190 - j390 Ω
1 kHz capacitance: (nominal)	2020 pF: ±20%

Unbalance Impedance



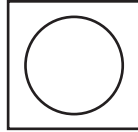
Unbalance Admittance



200 kHz-A

Power Rating: 300 W rms @ 2% duty cycle
 27 mm (1.08") PZT
 Active Area: 5.7 cm²
 Layered Plastic Urethane Window

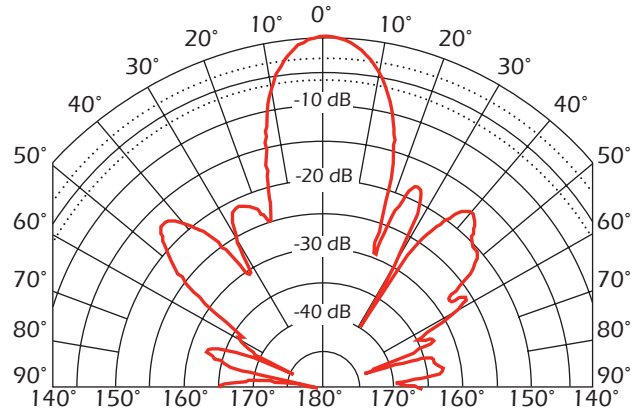
Array



Beamwidth:
 -3 dB: 15°
 -6 dB: 20°
 -10 dB: 26°

Directivity Index: 21
 Frequency Tolerance: ± 4 kHz
 Peak TVR⁽¹⁾, nominal: 159 dB
 Peak TVR⁽¹⁾, minimum: 157 dB
 Q (transmit): 33
 Peak Source Level⁽⁴⁾: 210 dB
 Peak RVR⁽²⁾, nominal: -190 dB
 Peak Figure of Merit⁽³⁾: -30 dB

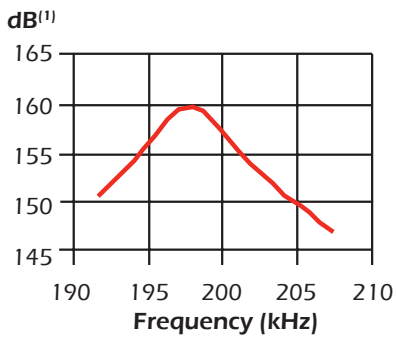
Transmit Radiation Pattern



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) Nominal peak TVR, rated power, and no cavitation

TVR



RVR

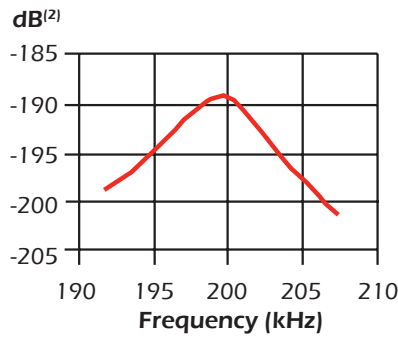
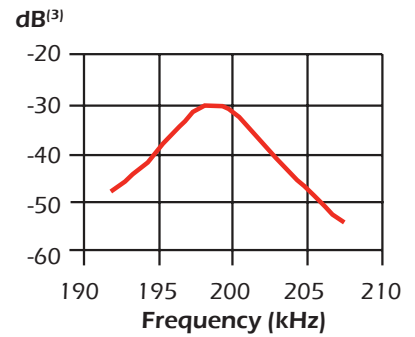


Figure of Merit



Technical Data Catalog

200 kHz-A

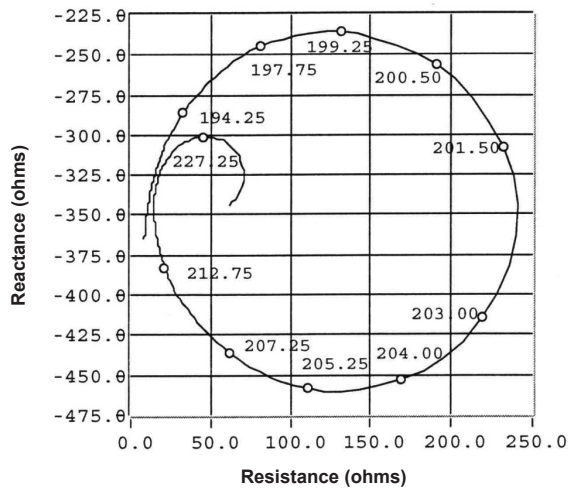
27 mm (1.08") PZT

Cable Type: C2
Cable Length: 10.4 m (34')

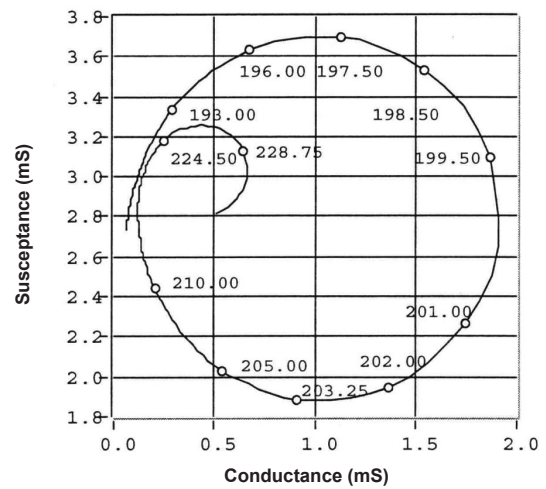
Note:
Impedance data includes cable

Impedance Data		
	Balanced	Unbalanced
Parallel: Rp.	525 Ω: -20%, +40%	525 Ω: -20%, +40%
Parallel: Cp. (nominal)	560 pF	560 pF
Series [R - jX]: (nominal)	465 - j170 Ω	465 - j170 Ω
1 kHz capacitance: (nominal)	860 pF: ±20%	860 pF: ±20%

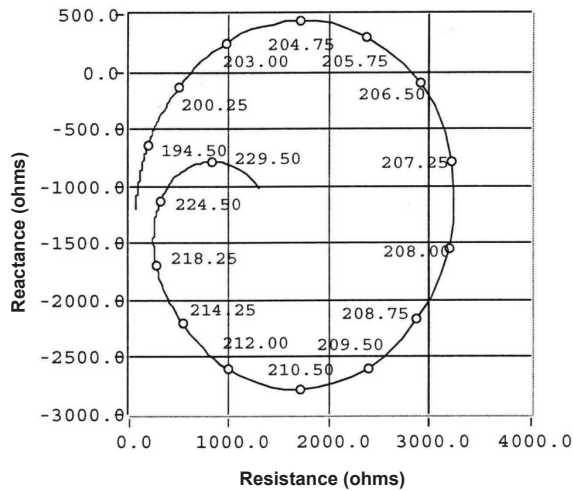
Unbalance Impedance



Unbalance Admittance



Balanced Impedance



Balanced Admittance

