

200 kHz-BFIq

Broadband

Transformed to 60 ohms

Power Rating: 2 kW @ 1% duty cycle

89 mm (3.46") PZT

Active Area: 61 cm² (9.4 in²)

Radiating Surface:

Cast Resin/Urethane

Beamwidth:

-3 dB: 5°

-6 dB: 7°

-10 dB: 9°

Directivity Index: 31.6

Frequency Tolerance: ± 8 kHz

Peak TVR⁽¹⁾, nominal: 181.0 dB

Peak TVR⁽¹⁾, minimum: 179.0 dB

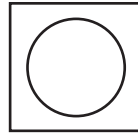
Q (transmit): 2.1

Peak Source Level⁽⁴⁾: 231 dB

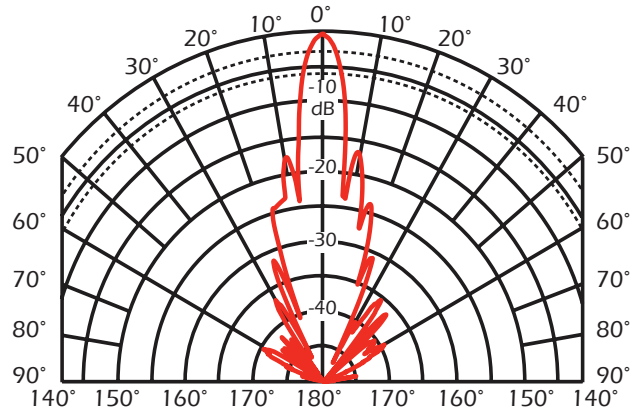
Peak RVR⁽²⁾, nominal: -184.0 dB

Peak Figure of Merit⁽³⁾: -2.6 dB

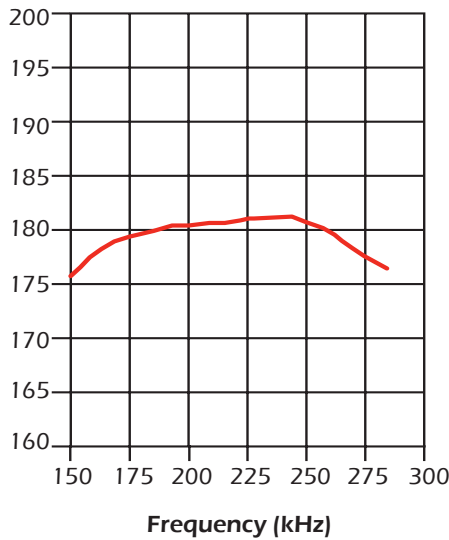
Array



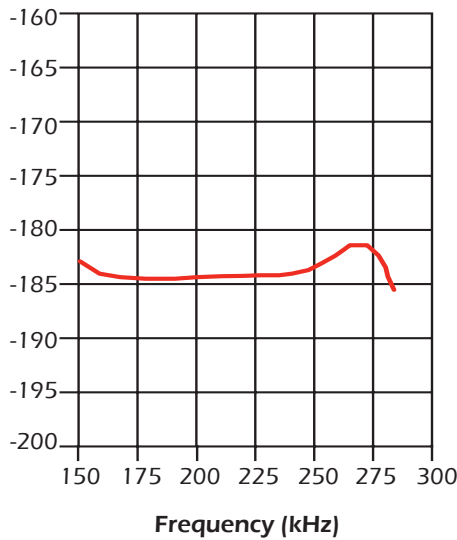
Transmit Radiation Pattern



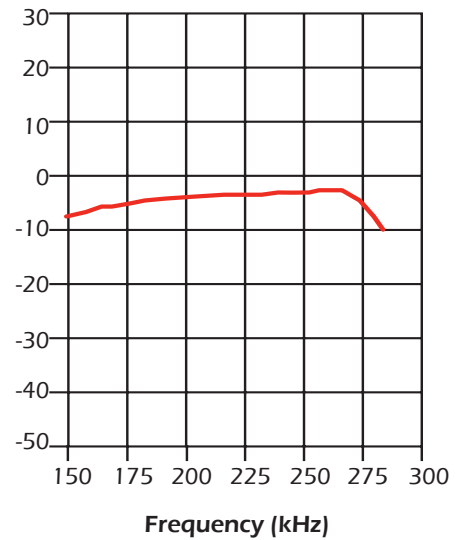
TVR dB⁽¹⁾



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-BFIq

Broadband

88 mm (3.46") PZT

Cable Type: C33

Cable Length: 10 m (33')

Note:

Impedance data includes cable

| Impedance Data w/transformer | | |
|-------------------------------------|------------------|-------------------|
| | <i>Balanced</i> | <i>Unbalanced</i> |
| Parallel: Rp. | 60 Ω: -20%, +40% | 60 Ω: -20%, +40% |
| Parallel: Cp. (nominal) | -2740 pF | -1220 pF |
| Series [R - jX]: (nominal) | 50 - j10 Ω | 50 - j10 Ω |
| 1 kHz capacitance: (nominal) | n/a | n/a |

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) |
|----------------------|-------------------------|-----------------|-----------------------|----------------------|---------------------------|---------------------------|-------------------------|---------------------------|
| 150.00 | 85.97 | -10.52 | 84.53 | -15.70 | 11.44 | 2.12 | 87.44 | 2253.55 |
| 155.00 | 69.77 | -9.85 | 68.74 | -11.94 | 14.12 | 2.45 | 70.81 | 2518.83 |
| 160.00 | 63.14 | -6.02 | 62.79 | -6.62 | 15.75 | 1.66 | 63.49 | 1652.62 |
| 165.00 | 56.93 | -4.67 | 56.74 | -4.63 | 17.51 | 1.43 | 57.12 | 1379.65 |
| 170.00 | 56.03 | -0.03 | 56.03 | -0.03 | 17.85 | 0.01 | 56.03 | 10.07 |
| 175.00 | 55.84 | 1.21 | 55.83 | 1.18 | 17.90 | -0.38 | 55.85 | -344.25 |
| 180.00 | 54.85 | 2.24 | 54.80 | 2.14 | 18.22 | -0.71 | 54.89 | -629.00 |
| 185.00 | 54.40 | 4.44 | 54.24 | 4.21 | 18.33 | -1.42 | 54.57 | -1224.32 |
| 190.00 | 55.10 | 5.25 | 54.87 | 5.04 | 18.07 | -1.66 | 55.34 | -1390.45 |
| 195.00 | 55.60 | 6.15 | 55.28 | 5.96 | 17.88 | -1.93 | 55.92 | -1573.13 |
| 200.00 | 56.76 | 5.53 | 56.50 | 5.47 | 17.54 | -1.70 | 57.03 | -1350.90 |
| 205.00 | 57.29 | 5.65 | 57.01 | 5.64 | 17.37 | -1.72 | 57.57 | -1335.00 |
| 210.00 | 58.45 | 6.20 | 58.11 | 6.31 | 17.01 | -1.85 | 58.79 | -1399.71 |
| 215.00 | 59.64 | 4.53 | 59.46 | 4.71 | 16.71 | -1.32 | 59.83 | -979.62 |
| 220.00 | 59.94 | 4.78 | 59.73 | 4.99 | 16.62 | -1.39 | 60.15 | -1004.91 |
| 225.00 | 60.99 | 4.58 | 60.79 | 4.87 | 16.34 | -1.31 | 61.18 | -925.72 |
| 230.00 | 61.07 | 3.93 | 60.93 | 4.19 | 16.33 | -1.12 | 61.22 | -776.86 |
| 235.00 | 62.69 | 5.77 | 62.37 | 6.30 | 15.87 | -1.60 | 63.01 | -1086.16 |
| 240.00 | 64.62 | 6.37 | 64.22 | 7.17 | 15.38 | -1.72 | 65.02 | -1138.18 |
| 245.00 | 67.53 | 8.70 | 66.75 | 10.21 | 14.64 | -2.24 | 68.31 | -1454.75 |
| 250.00 | 76.84 | 10.54 | 75.54 | 14.05 | 12.79 | -2.38 | 78.16 | -1515.33 |
| 255.00 | 87.09 | 9.04 | 86.01 | 13.69 | 11.34 | -1.80 | 88.18 | -1126.52 |
| 260.00 | 102.20 | 5.74 | 101.69 | 10.22 | 9.74 | -0.98 | 102.72 | -598.93 |
| 265.00 | 123.82 | -2.75 | 123.68 | -5.93 | 8.07 | 0.39 | 123.97 | 232.39 |
| 270.00 | 138.43 | -16.11 | 132.99 | -38.42 | 6.94 | 2.00 | 144.09 | 1181.75 |
| 275.00 | 142.86 | -32.04 | 121.10 | -75.78 | 5.93 | 3.71 | 168.52 | 2149.02 |
| 280.00 | 130.58 | -48.24 | 86.96 | -97.41 | 5.10 | 5.71 | 196.08 | 3247.18 |
| 285.00 | 110.69 | -58.83 | 57.29 | -94.70 | 4.68 | 7.73 | 213.84 | 4316.72 |