50/200 kHz – Alq (50 kHz)

Power rating: 600 Wrms @ 2% duty cycle
44mm (1.75") PZT
Active Area: 15.5 cm²
Layered Plastic Urethane Window

Beamwidth:
-3 dB: 38°
-6 dB: 57°
-10 dB: 82°

Directivity Index: 12.4
Frequency Tolerance: ±2 kHz
Peak TVR(1), nominal: 148 dB
Peak TVR(1), minimum: 146 dB
Q (transmit): 5
Peak Source Level(4): 207 dB
Peak RVR(2), nominal: -182 dB
Peak Figure of Merit(3): -32 dB

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

[Graph showing Transmit Radiation Pattern]
50/200 kHz – Alq (50 kHz)

44mm (1.75") PZT

Cable Type: C172
Cable Length: 7.6m (25.0')

### Impedance Data

<table>
<thead>
<tr>
<th></th>
<th>Balanced</th>
<th>Unbalanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel: Rp.</td>
<td>860 ohms-20%, +40%</td>
<td>860 ohms-20%, +40%</td>
</tr>
<tr>
<td>Parallel: Cp. (nominal)</td>
<td>2660 pF</td>
<td>2660 pF</td>
</tr>
<tr>
<td>Series [R – jX] (nominal)</td>
<td>600 – j520 ohms</td>
<td>600 – j520 ohms</td>
</tr>
<tr>
<td>1 kHz Capacitance</td>
<td>2200 pF ± 20%</td>
<td>2180 pF ± 20%</td>
</tr>
</tbody>
</table>
50/200 kHz – Alq (200 kHz)

Power rating: 600 Wrms @ 2% duty cycle
44 mm (1.75") PZT
Active Area: 15.5 cm²
Layered Plastic Urethane Window

Beamwidth:
-3dB: 12°
-6dB: 17°
-10dB: 22°

Directivity Index: 25.6
Frequency Tolerance: ±4 kHz
Peak TVR⁽¹⁾, nominal: 162 dB
Peak TVR⁽¹⁾, minimum: 160 dB
Q (transmit): 37
Peak Source Level⁽⁴⁾: 216 dB
Peak RVR⁽²⁾, nominal: -186 dB
Peak Figure of Merit⁽³⁾: -24 dB

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

---

Transmit Radiation Pattern

---

TVR

RVR

Figure of Merit

---

AIRMAR
TECHNOLOGY CORPORATION
Tel: 603.673.9570 • Fax: 603.673.4624 • www.airmar.com
50/200 kHz – Alq (200 kHz)

44mm (1.75”) PZT

Cable Type: C172
Cable Length: 7.6m (25.0’)

<table>
<thead>
<tr>
<th></th>
<th>Balanced</th>
<th>Unbalanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel: Rp.</td>
<td>370ohms-20%,+40%</td>
<td>370ohms-20%,+40%</td>
</tr>
<tr>
<td>Parallel: Cp. (nominal)</td>
<td>240pF</td>
<td>240pF</td>
</tr>
<tr>
<td>1 kHz Capacitance</td>
<td>2180pF±20%</td>
<td>2180 pF±20%</td>
</tr>
</tbody>
</table>
**50/200 kHz – A (50 kHz)**

Power rating: 600 Wrms @ 2% duty cycle
44mm (1.75") PZT
Active Area: 15.5 cm²
Layered Plastic Urethane Window

Beamwidth:
-3dB: 45°
-6dB: 69°
-10dB: 94°

Directivity Index: 13.6
Frequency Tolerance: ±2 kHz
Peak TVR(1), nominal: 151 dB
Peak TVR(1), minimum: 149 dB
Q (transmit): 21
Peak Source Level(4): 205 dB
Peak RVR(2), nominal: -179 dB
Peak Figure of Merit(3): -35 dB

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
50/200 kHz – A (50kHz)
44mm (1.75"")
Cable Type: C2
Cable Length: 7.6m (25.0')

<table>
<thead>
<tr>
<th>Impedance Data</th>
<th>Balanced</th>
<th>Unbalanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel: Rp.</td>
<td>300ohms-20%,+40%</td>
<td>300ohms-20%,+40%</td>
</tr>
<tr>
<td>Parallel: Cp. (nominal)</td>
<td>2000pF</td>
<td>3000pF</td>
</tr>
<tr>
<td>1 kHz Capacitance</td>
<td>2430pF±20%</td>
<td>3470pF±20%</td>
</tr>
</tbody>
</table>

**Unbalanced Impedance**

**Unbalanced Admittance**

**Balanced Impedance**

**Balanced Admittance**
50/200 kHz – A (200 kHz)

Power rating: 600 Wrms @ 2% duty cycle

44 mm (1.75”) PZT

Active Area: 15.5 cm²

Layered Plastic Urethane Window

Beamwidth:

-3dB: 11°

-6dB: 16°

-10dB: 21°

Directivity Index: 25.6

Frequency Tolerance: ±4 kHz

Peak TVR(1), nominal: 164 dB

Peak TVR(1), minimum: 162 dB

Q (transmit): 36

Peak Source Level(4): 217 dB

Peak RVR(2), nominal: -185 dB

Peak Figure of Merit(3): -22 dB

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

---

**Figure of Merit**

<table>
<thead>
<tr>
<th>Frequency (kHz)</th>
<th>dB(1)</th>
<th>dB(2)</th>
<th>dB(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>190</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>195</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>205</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>210</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Transit Radiation Pattern**

- TVR
- RVR
- Figure of Merit

---

AIRMAR®

TECHNOLOGY CORPORATION

Tel: 603.673.9570 • Fax: 603.673.4624 • www.airmar.com
50/200 kHz – A (200 kHz)

44mm (1.75”) PZT

Cable Type: C172
Cable Length: 7.6m (25.0')

<table>
<thead>
<tr>
<th>Impedance Data</th>
<th>Balanced</th>
<th>Unbalanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel: Rp.</td>
<td>340 ohms-20%,+40%</td>
<td>340 ohms-20%,+40%</td>
</tr>
<tr>
<td>Parallel: Cp. (nominal)</td>
<td>1180pF</td>
<td>2430pF</td>
</tr>
<tr>
<td>Series [R – jX] (nominal)</td>
<td>300 – j30 ohms</td>
<td>235 – j50 ohms</td>
</tr>
<tr>
<td>1 kHz Capacitance</td>
<td>2430pF±20%</td>
<td>3460 pF±20%</td>
</tr>
</tbody>
</table>

Unbalanced Impedance

Unbalanced Admittance

Balanced Impedance

Balanced Admittance