MODEL: CMC-4015-40L170 | DESCRIPTION: ELECTRET CONDENSER MICROPHONE

FEATURES
• omnidirectional
• low profile
• wide temperature range
• IP65

SPECIFICATIONS

<table>
<thead>
<tr>
<th>parameter</th>
<th>conditions/description</th>
<th>min</th>
<th>typ</th>
<th>max</th>
<th>units</th>
</tr>
</thead>
<tbody>
<tr>
<td>directivity</td>
<td>omnidirectional</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>sensitivity (S)</td>
<td>f = 1 kHz, 1 Pa, 0 dB = 1 V/Pa</td>
<td>-43</td>
<td>-40</td>
<td>-37</td>
<td>dB</td>
</tr>
<tr>
<td>standard operating voltage (Vs)</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>Vdc</td>
</tr>
<tr>
<td>max operating voltage</td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td>Vdc</td>
</tr>
<tr>
<td>current consumption (IoSS)</td>
<td>Vs = 2.0 Vdc, RL = 2.2 kΩ</td>
<td>500</td>
<td></td>
<td></td>
<td>µA</td>
</tr>
<tr>
<td>sensitivity reduction (ΔS-Vs)</td>
<td>f = 1 kHz, 1 Pa, Vs = 2.0 - 1.5 Vdc</td>
<td>-3</td>
<td></td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>frequency (f)</td>
<td></td>
<td>100</td>
<td></td>
<td>20,000</td>
<td>Hz</td>
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<tr>
<td>current consumption (IoSS)</td>
<td>Vs = 2.0 Vdc, RL = 2.2 kΩ</td>
<td>500</td>
<td></td>
<td></td>
<td>µA</td>
</tr>
<tr>
<td>signal to noise ratio (S/N)</td>
<td>f = 1 kHz, 1 Pa, A-weighted</td>
<td>60</td>
<td></td>
<td></td>
<td>dBA</td>
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<tr>
<td>output impedance (Zout)</td>
<td>f = 1 kHz, 1 Pa</td>
<td>2.2</td>
<td></td>
<td></td>
<td>kΩ</td>
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<tr>
<td>dimensions</td>
<td>Ø4.0 x 1.5</td>
<td></td>
<td></td>
<td></td>
<td>mm</td>
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<tr>
<td>material</td>
<td>Al</td>
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<td></td>
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</tr>
<tr>
<td>terminal</td>
<td>wire leads with connector</td>
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<tr>
<td>weight</td>
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<td>0.3</td>
<td></td>
<td></td>
<td>g</td>
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<tr>
<td>operating temperature</td>
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<td>-40</td>
<td>70</td>
<td></td>
<td>°C</td>
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<td>storage temperature</td>
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<td>-40</td>
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<td>°C</td>
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<td>RoHS</td>
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<tr>
<td>IP level</td>
<td>IP65 [IEC standard 529 edition 2.0 (1988)]</td>
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</table>

Notes:
1. We use the “Pascal (Pa)” indication of sensitivity as per the recommendation of I.E.C. (International Electrotechnical Commission). The sensitivity of “Pa” will increase 20 dB compared to the “ubar” indication. Example: -60 dB (0 dB = 1 V/ubar) ~ -40 dB (1 V/Pa).
2. All specifications measured at 5~35°C, humidity at 45~85%, under 86~106 kPa pressure, unless otherwise noted.
MECHANICAL DRAWING

units: mm
tolerance: ±0.20 mm

wire: UL 1571, 30 AWG
connector: JST ACHR-02V-S
contact: JST SACH-003G-P0.2

Max. 2.9
1.5 ± 0.2
20 ± 0.1
0.15 ± 0.05

Term.1 (+)
Term.2 (-)

Red PCB
Red

UV

0D - Max. 2.4 mm
Black heat-shrinkable sheath

170 ± 3
35 ± 2
15 ± 2

Pitch 1.2
PIN(+)
FREQUENCY RESPONSE CURVE

APPLICATION CIRCUIT

- FET Impedance converter
- E.C.M. unit
- Shield Case
- Term.1
- C
- Output
- RL
- +Vs
- Term.2
- -Ground

RL = 2.2 kΩ
C = 1 µF
PACKAGING

units: mm

Inner Box Size: 310 x 248 x 49 mm
Outer Box Size: 530 x 330 x 290 mm
Inner Box QTY: 2,000 pcs per box
Outer Box QTY: 20,000 pcs per box
## REVISION HISTORY

<table>
<thead>
<tr>
<th>rev.</th>
<th>description</th>
<th>date</th>
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<tr>
<td>1.0</td>
<td>initial release</td>
<td>05/15/2023</td>
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The revision history provided is for informational purposes only and is believed to be accurate.