Overview

Tabletop array microphone provides a comfortable conference sound environment with no configuration needed.

Features

- Supports network audio standard, “Dante”.
- Auto Voice Tracking allows flexibility of table layout in meeting room and position of participants.
- 6 types of microphone directivity to choose from, depending on the number of participants and meeting style.
- Achieves comfortable sound quality by making full use of adaptive echo canceller, auto gain control, noise reduction, and dereverberation.
- When using Auto Voice tracking, RM-CR automatically selects the microphone that is the nearest to talker to pick up voice.
- Dante audio, control reception and PoE power are connected through a single network cable.
- With included mounting adaptor, the microphone can be fixed on the table.
## Specifications

### General Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>Boundary Microphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Black, White</td>
</tr>
<tr>
<td>Dimensions (W x D x H)</td>
<td>140mm x 140mm x 41.5mm</td>
</tr>
<tr>
<td>Weight</td>
<td>310g</td>
</tr>
<tr>
<td>Power Requirements</td>
<td>PoE (IEEE 802.3af)</td>
</tr>
<tr>
<td>Maximum Power Consumption</td>
<td>4.5W</td>
</tr>
<tr>
<td>In Operation Temperature</td>
<td>0°C - 40°C</td>
</tr>
<tr>
<td>Humidity</td>
<td>30% - 90% (No condensation)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-20°C - 60°C</td>
</tr>
<tr>
<td>Humidity</td>
<td>20% - 90% (No condensation)</td>
</tr>
</tbody>
</table>
| Indicator                    | • Mute Indicator (Mute/Unmute)  
                             | • Status Indicator (Ring)  
                             | • Network Port Indicator |
| Maximum Device Number with RM-CR | 8 (Connection with other than RM-CR is not limited to this device) |

### Accessories
- Installation Manual
- Table-top mounting adapter
- 3 x Screw for mounting
- 3 x Spacer

### Ethernet
- Dante Audio/Dante Control, Remote Control, Web UI, PoE
- CAT5e or higher (STP)

### Audio I/O
- Frequency Response: 160Hz - 16kHz (-10dB)
- Sampling Rate: 48kHz
- Bit Depth: 24bit
- Latency: 57ms (including signal processing)
- Audio I/O Dante: 1in x 2out
  - In1=AEC reference signal/Out1=output of beam mix, Out2= output of beam mix (simple processed)
- Maximum Input Level of SPL (0dBFS): 106.8dB SPL
- Self Noise: 6.3dBA SPL
- SNR (Ref. 94dB SPL at 1kHz): 87.7dBA
- Sensitivity: -12.8dBFS/Pa
- Dynamic Range: 100.5dBA
- Signal Processing:  
  - Auto Voice Tracking
  - Selectable Polar Pattern: Cardioid, Hyper Cardioid, Super Cardioid, Omni, Bi-Directional, Troid
  - AEC, NR, Dereverberation, Auto Mixer, AGC, User PEQ, Output Gain
Dimensions

Unit: mm (inch)

Software

- ProVisionaire Touch
- ProVisionaire Control
Architectural and Engineering Specifications

The solution shall be an intelligent tabletop microphone. The tabletop microphone system shall be Dante enabled and PoE powered, requiring only one CAT5e or Cat6 cable for both power and data/audio transmission. The tabletop microphones shall support programmability for several audio pick-up patterns. Audio pick-up patterns shall include omni-directional and a toroid pattern to capture 360 degree around the microphone with toroid reducing sounds from above the microphone. The microphone shall also allow for cardioid, super cardioid, and hyper cardioid pick-up pattern. When selecting any of the cardioid pick-up patterns, up to four independent directions (“channels”) shall be available to define per microphone and all four will be active. A predefined bi-directional cardioid pick-up pattern with two lobes opposite to each other shall be available, with free selection of the direction of that pattern. When selecting several active channels, different mixing options shall be offered, including gain-sharing options and all-mix. The tabletop solution shall also offer an Active Voice Tracking setting in which the microphone elements that provide the best audio capture are automatically selected and mixed into the audio output of the microphone. The microphone shall include audio post-processing. This shall include Adaptive Acoustic Echo Cancellation, Noise Reduction, Human Voice Activity Detection, Automatic Gain Control, Automatic mixing of audio signals, dereverberation, and others. An installation mechanism shall be provided to install microphones in a fixed location on surfaces like tables. Each tabletop microphone shall provide an audio signal that was only post-processed using linear algorithms allowing for technology like speech recognition to use the signal without loss of performance. The product shall provide connectivity for third party control systems, allowing to manage microphone and audio behavior from the room control system. The Yamaha RM-TT is specified.
Frequency Response

**LINEAR**

```
RESPONSE [dB]                     FREQUENCY [Hz]

-30                              10  20  50  100  500  1k  5k  10k  20k
-20
-10
  0
 -10
-20
-30
```

**1/3 octave band**

```
RESPONSE [dB]                     FREQUENCY [Hz]

-30                              10  20  50  100  500  1k  5k  10k  20k
-20
-10
  0
 -10
-20
-30
```
Directional Characteristics