

# Quinta MU 33

Digital Wireless Chairman Microphone Unit



## FEATURES

- Fully-digital audio and control
- Direct Sequence Spread Spectrum (DSSS) provides high immunity from interference and unauthorised listening, even when using other radio systems
- Wireless transmission with integrated True Diversity antenna technology for transmitting and receiving
- Three selectable frequency bands : 2.4 / 5.2 / 5.8 GHz
- Automatic or manual silent change to an interference-free frequency response acc. to EN 3000328 ETSI
- Automatic recognition of interferences in all frequency ranges
- Processor-controlled and automatic audio channel allocation of the microphone units
- Digital 128-bit encryption and additional 24-bit PIN code against unauthorised listening
- Revolutio Microphone Array Technology
- Corridor characteristic
- LED strips on both sides of the housing indicate that the microphone unit is in ready-to-talk mode
- Touch buttons with backlit illumination in 3 colours and braille
- Microphone button to switch the microphone on / off
- Clear button to switch off all activated delegate stations
- Programmable function button for different priorities or external controls
- 2 buttons to adjust the level on the headphone output
- Voice-controlled activation of the microphone possible
- High-quality aluminium housing with a non-glare matt black coating of Alexit soft-touch paint (on the rear) and touch buttons (on the front)
- Integrated two-way speakers
- The loudspeaker is turned off when the microphone is activated
- Adjustable mini stereo jack output (3.5 mm) as documentation or headphones
- Parameters can be programmed via the control unit and the appropriate configuration software
- Automatic Power OFF when the control unit is in the stand-by mode or switched off
- Power on LED
- Charging status of the battery can be monitored and transmitted to the control unit
- Operating control LED indicates the status when the minimum capacity is too low
- Charging contacts for charging the integrated rechargeable batteries in the charging unit
- Reliable processor-controlled charging electronics avoids memory effect and ensures immediate use of the microphone units
- LED strip on the side of the housing indicates the charging status and the power on LED on the rear indicates the use of an external power adapter
- Maximum charging time of 2.5 hours when the battery (NiMH) is completely empty
- DC connection for battery recharging or powering via external power adapter
- Minimum operating time 20 hours

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# Quinta MU 33

## DESCRIPTION

The Quinta MU 33 chairman microphone unit is equipped with a clear, function, and a microphone button in the housing with which the participant can switch his microphone on and off. Additionally the unit features two buttons to adjust the level on the headphone output. The Revoluto microphone array technology with integrated microphone capsules provides a so-called corridor characteristic which ensures a wide range of good voice quality. The speaker can move freely, i.e. can stand up or sit down, can move his/her head and move towards or away from the microphone unit. The chairman microphone unit does not depend on the maximum number of simultaneous open microphones. Unlike the delegate microphone units the chairman microphone unit is not controlled by Automatic Channel Allocation, but has an extra transmitting channel exclusively for the chairman. The ready-to-talk status of the microphone is indicated by the red LED strips on both sides of the housing.

Using the clear button all switched-on microphones of the delegate microphone stations are switched off.

With the function button there are various configurations possible via the "Quinta Conference" software:

### Priority "Normal"

When the chairman switches his microphone on with the priority button the switched on delegate microphone units are switched off. The delegates can switch on their microphone again, when the chairman has switched off his.

### Priority "Mute"

When the chairman switches his microphone on with the priority button the switched on delegate microphone units are muted as long as the chairman is speaking. If the chairman switches his microphone off, all delegate microphone units that had been switched on before, are switched on again.

### Priority "Clear"

When the chairman switches his microphone on with the function button and the priority programming "Normal" the switched on delegate microphone units are switched off. Afterwards the delegates can switch on their microphone and take part into the discussion again, while the chairman's microphone is still switched on.

### Function

A command is sent via the RS 232, USB, TCP/IP serial interface from the Quinta CU control unit and a programmed function is carried out via a media control system for instance (e.g. light control). For the other functions there is also a command sent via the RS 232, USB, TCP/IP serial interface from the Quinta CU control unit.

### Command A/B

Two different commands according to the duration of the push:

< 1 second = command "Short press string" is transmitted

> 1 second = command "Long press string" is transmitted

These commands can be set individually with the "Quinta Conference" software.

### Audio Mute

An audio signal, e.g. from a wireless microphone, can be switched off. This function can be combined with a "Clear" command to switch off activated delegate microphones.

Depending on the configuration with the "Quinta Conference" software the following operating modes are available:

**Voice activation:** the microphone is switched on, when someone speaks into it.

**Push-To-Talk:** the microphone button must be held down, while the participant is speaking.

The integrated loudspeaker reproduces the audio signal of the whole conference system. Depending on the audio signal routing in the control unit the loudspeaker can reproduce other audio signals such as a wireless microphone in the auditorium.

The parameters of the microphone unit are adjusted via PC by using the "Quinta Conference" software. The parameters are set for all microphone units.

The volume of the loudspeaker is adjusted and can be controlled with the Quinta control unit or a media control system.

Each microphone unit has its own address. An existing system can be complemented at any time.

The DSSS transmission offers high immunity against unauthorised listening with a 128-bit encryption. In addition to this, the conference system including the appropriate microphone units can be protected with PIN code (24-bit). A microphone unit that does not have the correct PIN code will be identified by the control unit and switched off immediately.

The integrated rechargeable battery allows an operation of the microphone unit of 20 hours depending on the amount of participation in the discussion. As soon as the remaining battery time is below a certain threshold of 1 hour, the power on LED on the rear of the microphone unit will flash or if the system is controlled by PC or a media control system, the low battery capacity can also be displayed. The charging time of a completely empty battery is max. 2.5 hours with the integrated processor-controlled charging electronics. Depending on the use of the microphone unit the charging time can be less.

As an option the microphone unit can be powered and charged by a DC power supply adapter.

The microphone unit is switched on by briefly pressing the microphone button once. There are various ways to switch off the microphone unit:

1. Press the microphone button for 3 seconds.
2. Press the standby button of the Quinta control unit for 3 seconds to switch off all activated microphone units.
3. Switch off all microphone units via an RS 232 or TCP/IP command from the PC or media control system.
4. Switch off the control unit; after approx. 3 minutes the microphone unit will be switched off.

# Quinta MU 33

## ARCHITECT'S SPECIFICATIONS

The digital wireless microphone unit shall be available as chairman version with Revoluto microphone array technology. The microphone unit shall provide five buttons: one for turning on/off, one for clearing all active delegate microphone units, one free programmable function button for functions such as priority or functions in conjunction with a serial interface / Ethernet interface at the control unit, and two buttons for adjusting the level on the headphone output. The DSSS modulation shall ensure high immunity from interference in the frequency range of 2.4 / 5.2 and 5.8 GHz. The true diversity antenna technology shall ensure highest transmission reliability. The digital 128-bit encryption shall include an additional 24-bit PIN code. There shall be an automatic recognition of interferences in all frequency ranges. The silent change to an interference-free frequency range shall be automatic or manual according to the EN 300328 ETSI. The audio channel allocation of the microphone units shall be processor-controlled and automatic. The high-quality aluminium housing shall feature a mat black coating with Alexit soft-touch paint. The integrated wideband loudspeaker shall be used for decentral sound reinforcement. The integrated limiter shall be used against overdrive. The microphone unit shall

use Revoluto microphone array technology with 17 microphone capsules to provide a corridor characteristic which ensures a wide range of good voice quality. Two red LED strips on the sides of the housing shall indicate that the microphone unit is in ready-to-talk mode. The touch buttons shall be backlit in 3 colours and provided with Braille. The integrated rechargeable NiMH battery shall provide a minimum operating time of 20 hours. The processor-controlled, intelligent charging technology shall provide a Quick-Charge function without memory effect and charge the battery within a maximum of 2.5 hours depending on the charging state. The charging status of the battery shall be monitored and transmitted to the control unit. The operating control LED shall indicate the status when the minimum capacity is too low. The microphone unit shall be provided with two nickel-plated charging contacts. The headphone output shall be a mini jack (3.5 mm) socket with adjustable control. The DC connection shall be used for battery recharging or powering via external power adapter. Dimensions (LxHxD) 300x82x96mm. Weight approx. 1061 g.

Manufacturer: beyerdynamic  
Type: Quinta MU 33

## TECHNICAL SPECIFICATIONS

### General

Frequency range	2400 - 2483.5 MHz 5150 - 5250 MHz 5725 - 5875 MHz
Modulation	DSSS (Direct Sequence Spread Spectrum) and QPSK/BPSK (Quadrature/Binary Phase Shift Keying) digital signal processing acc. to own standard
Max. number of audio streams	4 useable channels per system
Signal-to-noise ratio	80 dB typ., (unweighted signal-to-noise ratio)
Range between microphone units and control unit.	> 100 m
Power supply	110 – 240 V AC 50/60 Hz
Approval	world-wide

### AVB

Transmission and reception of audio data	acc. to IEC 61883-6
Format of the audio data	AM824
Stream ID Quinta CU	Bit 63 - 16 / MAC address

### Microphone Units

Microphone	Microphone Array
Pick up pattern	Corridor
T.H.D.	< 0.1%

Transmitter power	max. 20 dBm per channel (average, duty cycle $\leq$ 30%)*
Battery voltage	8 NiMH cells, 2080 mAh
External DC operation	15 V DC ( $\pm$ 0.5 V), residual hum < 20 mV, 400 mA
Charging time with charger	max. 2.5 hours when the battery is completely empty
with mains charger adapter	max. 2.5 hours when the battery is completely empty
Loudspeaker	Integrated, two-way loudspeaker
Loudspeaker switch off at "Mic On"	yes
Headphone output	jack socket (3.5 mm, stereo)
Min. impedance	16 $\Omega$
Power supply	9.6 V with integrated NiMH battery (8 cells)
Operating time depending on the type of the microphone unit	min. 20 hours in discussion mode; operating time depends on the volume
Temperature range (at < 90% humidity)	+10 °C – +40 °C
Storage temperature (at < 90% humidity)	-20 °C – +55 °C
Minimum impedance	8 $\Omega$
Dimensions (L x H x D)	300 x 82 x 96 mm
Weight	approx. 1061 g

\*The transmitter power can differ from this value due to specific regulations in various countries.

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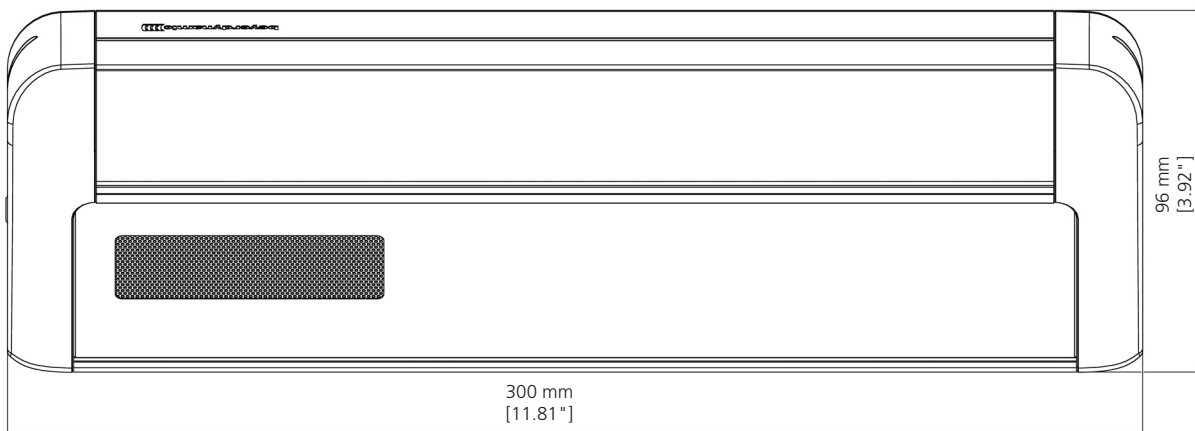
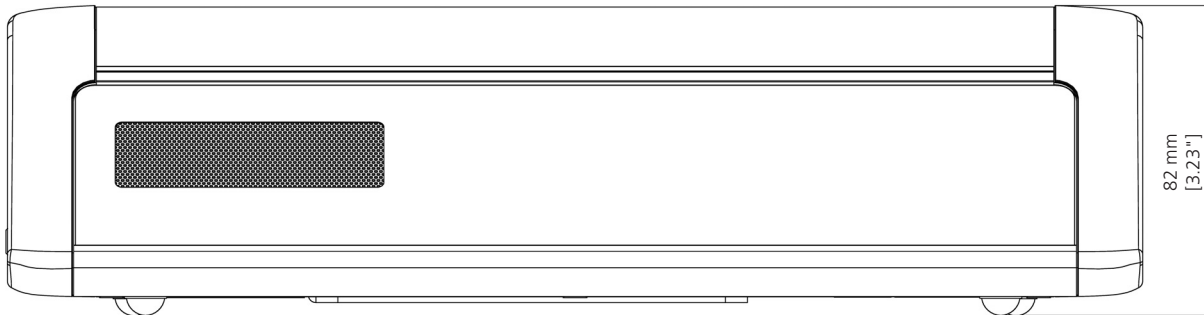
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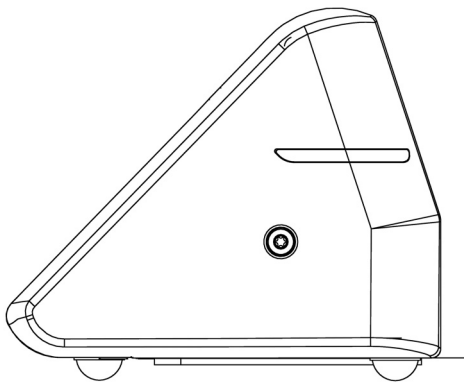
# Quinta MU 33

## DIMENSIONS

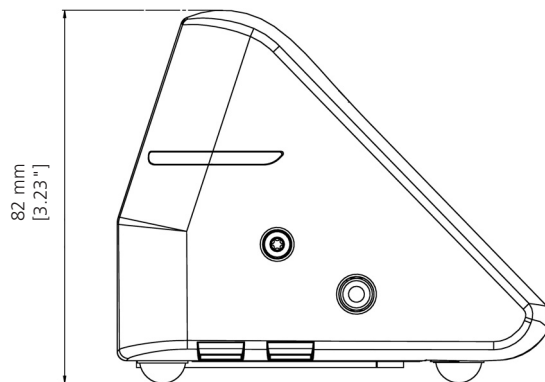
### Front View



### Lateral view, right



### Lateral view, left



# Quinta MU 33

## REAR VIEW

