Quinta RS

Digital Control Unit

Order # 710.393

Features

- Optimised for tele / video conferencing applications with a maximum of 4 microphones in the microphone mode and small conferences with a maximum of 20 microphones in the conference mode.
- Can be operated in the conference or microphone mode.
- DSSS modulation to ensure high immunity from interference in the frequency range of 2.4 / 5.2 and 5.8 GHz
- HD - High Definition audio mode provides an audio bandwidth of 24 KHz and a sampling rate of 48 KHz
- HQ - High Quality of service mode for a user-optimised transmitting and receiving performance in difficult environments in terms of radio transmission
- AVB (Audio Video Bridging) input and output for digital signal transmission in building networks - compliant to the IEEE 802.1 standards
- True diversity antenna technology ensures highest transmission and reception reliability
- Digital 128-bit encryption and additional 24-bit PIN code protection
- Automatic recognition of interferences in all frequency ranges
- Silent change to an interference-free frequency range - automatic or manual according to the EN 300328 ETSI
- Control of a maximum of 20 microphones in the conference mode and up to 4 in the microphone mode.
- 4 audio up-streams for up to 4 microphone signals
- 2 audio down-streams for loudspeaker transmission and headphone output
- NOM - Number of open Microphones function allows the allocation of up to 4 microphone units simultaneously
- Processor-controlled and automatic audio channel allocation of the microphone units
- Integrated DSP for flexible audio routing
- Zoning – the output channel allocation of individual micro-phone units can be divided into 4 different audio zones analogue or digital via AVB
- With the Mix-Minus function the system can be integrated into tele- and video conferences
- Fully parametrical 4-band equalizer for microphone unit loud-speakers and master output
- NOM attenuation for the master output and individual audio zone outputs
- Analogue audio input for external signals or digital via AVB
- **Operating modes Conference Mode:**
  - Manually - each participant can turn his or her microphone on/off
  - Voice Activation (not available when using the Quinta TB boundary microphone) - once someone speaks into the microphone, it is turned on
  - Override - when a microphone is activated, the unit that was activated beforehand is turned off
  - Push-To-Talk - the participant must press the microphone button as long as he/she speaks
- **Operating modes Microphone Mode:**
  - Push-To-Mute - as long as the participant keeps the microphone button pressed, the microphone is muted
  - Toggle Mute: When briefly pressing the microphone button for the first time, the microphone is muted; when the microphone button is pressed once more, the microphone is open again
  - Global Mute: If this function is activated, the selected mute function refers to all microphones
- System control and configuration via RS 232, USB or Ethernet; connection to a media control system is possible
- Integrated web server for platform independent system configuration via Smartphone, tablet PC or laptop/PC
- Connections on the front panel:
  1 x USB Type B
- Connections on the rear panel:
  1x bal. audio master output via 3-pin XLR;
  1x bal. audio master output via Phoenix terminal strip;
  1x unbal. audio master output via RCA;
  4x bal. audio zone outputs via Phoenix terminal strip,
  1x digital AVB (Audio Video Bridging) via RJ45;
  1x bal. audio input via Phoenix terminal strip;
  1x RS232 via 9-pin Sub-D;
  1x TCP/IP via RJ45;
  2x antenna connections N(HF)
- 19" desktop housing, 1 U
- Dimensions (W x H x D) 440 x 44 x 239 mm [17.32" x 1.73" x 9.41"]
- Supplied with two angled rod antennas

beyerdynamic GmbH & Co. KG
Theresienstr. 8 | 74072 Heilbronn – Germany
Tel. +49 (0) 71 31 / 617 - 0 | Fax +49 (0) 71 31 / 617 - 204
info@beyerdynamic.de | www.beyerdynamic.com

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Description

The Quinta RS control unit is used to control a maximum of 4 wireless microphones in the microphone mode and up to 20 wireless microphone units with loudspeakers in the conference mode.
Depending on the settings and selected operating mode up to 4 microphone units can be turned on simultaneously (e.g. 3 delegate and 1 chairman microphone unit). There is a constant status inquiry, monitoring or control due to the data connection to the microphone units. Individual microphone units can be activated via the RS 232 serial interface. The complete discussion system can be switched off via a control command or by pressing the "Stand-by" button on the front. The 4 LEDs on the front indicate the assigned transmission channels of the microphones. For maximum security the control unit can be protected with a PIN code accepting only microphone units that have the correct PIN code. In addition to this, the radio transmission is digitally encrypted.
The Quinta system meets the regulations of the European Telecommunications Standards Institute (ETSI) and can be integrated inot existing or new building computer networks that comply IEEE 802.1 IT standard (AVB). For a safe wireless transmission there are three frequency bands available: 2.4 / 5.2 / 5.8 GHz. The switching of the channels is either automatically or manually.
The protection against unauthorised listening is guaranteed by using 128-bit encryption and a 24-bit PIN-code.
The integrated Web server allows configuring the control unit with a Smartphone, tablet PC or PC via USB, LAN, WLAN.
The system can be connected to a media control system via the RS 232 interface. This allows a particularly convenient operation and provides different status indicators e.g. the battery status. Furthermore, the Quinta system can be integrated into tele and video conferences.

Conference mode:

- Typically, a large number of microphone units (Quinta CU: up to 150 / Quinta RS: up to 20) are linked to one control unit.
- Up to 4 participants can speak simultaneously.
- In the normal mode of the conference mode, the microphone is deactivated after the microphone units have been turned on. When pressing the microphone button at one of the microphone units, a request is sent to the control unit, the control unit releases a channel and the microphone is activated.
- In the conference mode, certain rules can also be used to allocate microphones (e.g. NOM, FiFo, request-to-speak mode, voice activation).

Microphone mode:

- New operating mode, which is based on a "classic" multi-channel radio microphone receiver.
- Up to 4 microphones can be used simultaneously.
- These 4 microphones have a permanent audio connection with the control unit and, if desired, are assigned to a specific audio channel and an analogue or digital audio output.
- The microphones are activated immediately after the microphone unit has been turned on (it can be spoken into immediately) and, if requested, they are muted by operating the microphone button. Various options are available for this: Global Mute, Push-to-Mute, Toggle Mute.
- If necessary, the number of microphones used can be extended by cascading several control units.

The conference and microphone mode can be used with both Quinta CU and Quinta RS.

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Architect's Specifications

The control unit shall be the core of a digital wireless discussion system. It shall be optimised for tele / video conferencing applications with a maximum of 4 microphones in the microphone mode and small conferences with a maximum of 20 miccrophones in the conference mode. Optionally, it shall be operated in the conference or microphone mode.
The DSSS modulation shall ensure high immunity from interference in the frequency range of 2.4 / 5.2 and 5.8 GHz. The HD- High Definition audio mode shall provide an audio bandwidth of 24 KHz and a sampling rate of 48 KHz. The HQ- High Quality of service mode shall be used for a user-optimised transmitting and receiving performance in difficult environments in terms of radio transmission. The AVB (Audio Video Bridging) input and output for digital signal transmission in building networks shall be compliant to the IEEE 802.1 standards. The true diversity antenna technology shall ensure highest transmission reliability. The digital 128-bit encryption shall include an additional 24-bit PIN code.
The control unit shall manage project-related groups of microphone units and deactivate non-registered microphone unit to ensure maximum security against unauthorised listening.
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 control unit shall manage a maximum of 20 microphones in the conference mode and up to 4 microphones in the microphone mode. There shall be 4 audio up-streams for up to 4 microphone signals. There shall be 2 audio down-streams for loudspeaker transmission and headphone output. The NOM - Number of open Microphones function shall allow the allocation of up to 4 microphone units simultaneously. The audio channel allocation of the microphone units shall be processor-controlled and automatic. The control unit shall feature different operating modes in the conference mode: Manual – each participant can turn the microphone on and off; Voice Activation – the microphone is turned on when someone speaks into it; Override – when a microphone unit is activated, the one that was activated before will be turned off; Push-To-Talk – as long as the participant speaks into the microphone, he/she must press the microphone button.
The control unit shall feature different operating modes in the microphone mode: – Push-To-Mute; – Toggle-Mute; – Global-Mute. For flexible audio routing there shall be an integrated DSP. Zoning – the outputchannel allocation of individual microphone units shall be divided into 4 different audio zones analogue or digital via AVB. With the Mix-Minus function the system shall be integrated into tele and video conferences. The control unit shall feature a fully parametrical 4-band equalizer for microphone unit loudspeakers and master output, a NOM attenuation for the master output and individual audio zone outputs as well as an analogue audio input for external signals or digital via AVB. The system control and configuration shall be done via RS 232, USB or Ethernet. The connection to a media control system shall be possible. An integrated web service shall be available for platform independent system configuration via Smartphone, tablet PC or laptop/PC. The individual audio channels shall be monitored via adjustable headphone connections with a jog/shuttle button on the front. The OLED display shall indicate the state and operation of all parameters. The connection on the front shall be a plug-in type: 1x headphone output via 1/4" jack (6.35mm); 1 x USB Type B. The connection on the rear shall be a plug-in type: 1x bal. audio master output via 3-pin XLR; 1x bal. audio master output via Phoenix terminal strip; 1x unbal. audio master output via RCA; 4x bal. audio zone outputs via Phoenix terminal strip, 1x digital AVB (Audio Video Bridging) via RJ45; 1x bal. audio input via Phoenix terminal strip; 1x RS232 via 9-pin Sub-D; 1x TCP/IP via RJ45; 2x antenna connections N(HF). The dimensions of the 19" desktop housing with 1 U shall be (WxHxD) 440 x 44 x 239 mm [17.32" x 1.73" x 9.41"]. The delivery shall sinclude 2 angled rod antennas.
The price shall include delivery, installation, integration into the overall system and programming.
The connection of all incoming and outgoing cables via cable connectors as a professional solder, screw or crimp version shall be included as well as all necessary cables, connections, components, connectors and mounting materials, which are necessary for operation and a standard and professional installation.

Manufacturer: beyerdynamic
Type: Quinta RS

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Quinta RS

Supplied Accessories

1 Power cable
1 USB cable
1 XLR male / XLR female cable, 1.5 m
1 Mini mono jack (3.5 mm) / RCA phono adapter
6 Phoenix terminal strips, 3-pin
2 CA Q11 antennas
1 Unlocking tool
Quinta Software Control and configuration software. . . . . Order # 723.991

Optional Accessories

CA Q 13 Planar antenna, 2.4 - 5.8 GHz. . . . . Order # 724.408
CA Q 14 Omnidirectional antenna for remote installation. . . . . Order # 723.894
CA Q 30 System coaxial cable Ecoflex, sold per metre. . . . . Order # 724.440
CA Q 31 System coaxial cable Ecoflex, 10 m. . Order # 724.416
CA Q 32 System coaxial cable Ecoflex, 20 m. . Order # 724.424

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 [109.36 yds]
Power supply	100 – 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 Bit 15 – 0 / X

Quinta CU Control Unit

Frequency response	70 Hz – 22 kHz (-3 dB)
Operation mode	Diversity (receiver), separate for each channel
Antenna connection	2 N-connectors (female)
Transmitting power	max. 20 dBm per channel and region (average, duty cycle ≤ 30%)*

Connections

Serial control port	RS 232, USB
Ethernet port	LAN, TCP/IP standard
Master output balanced	1 x XLR, 1 x 3-pin Phoenix terminal strip, max. +6 dBu, level adjustable via software (range ±15 dB)
Master output unbalanced	RCA, max. +2.2 dBu, level adjustable via software (range ±15 dB)
Audio outputs, single channels	4 x 3-pin Phoenix terminal strip, max. +6 dBu, level adjustable via software (range 0 ... -50 dB)
Input balanced	1 x 3-pin Phoenix terminal strip, max. +6 dBu, input adjustable via software (range 0 ... -50 dB)
Power supply	100 – 240 V AC 50/60 Hz 70 – 150 mA
Fuse	2 x AL 0.5 A (slow blow)
Power consumption	10 VA
Temperature range	+10° – +40 °C [+50 °F – +104 °F (at < 90% humidity)
Indication	4 channel LEDs (red/white) and Power LED (red/white)
Min. depth of Rack	380 mm
Dimensions (W x H x D)	19", 1HU (440 x 44 x 239 mm) [17.32" x 1.73" x 9.41"]
Weight	3.2 kg [7.05 lbs]
AVB interface:	
MAC address	00:22:BB:00:FF:FF
Stream Suffix	00:00
Stream ID	00:22:BB:00:FF:FF:00:00
Number of channels	4
Audio format	IEC 61883-6/AM824 with 24-bit / 48 kHz
IP configuration	DHCP

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

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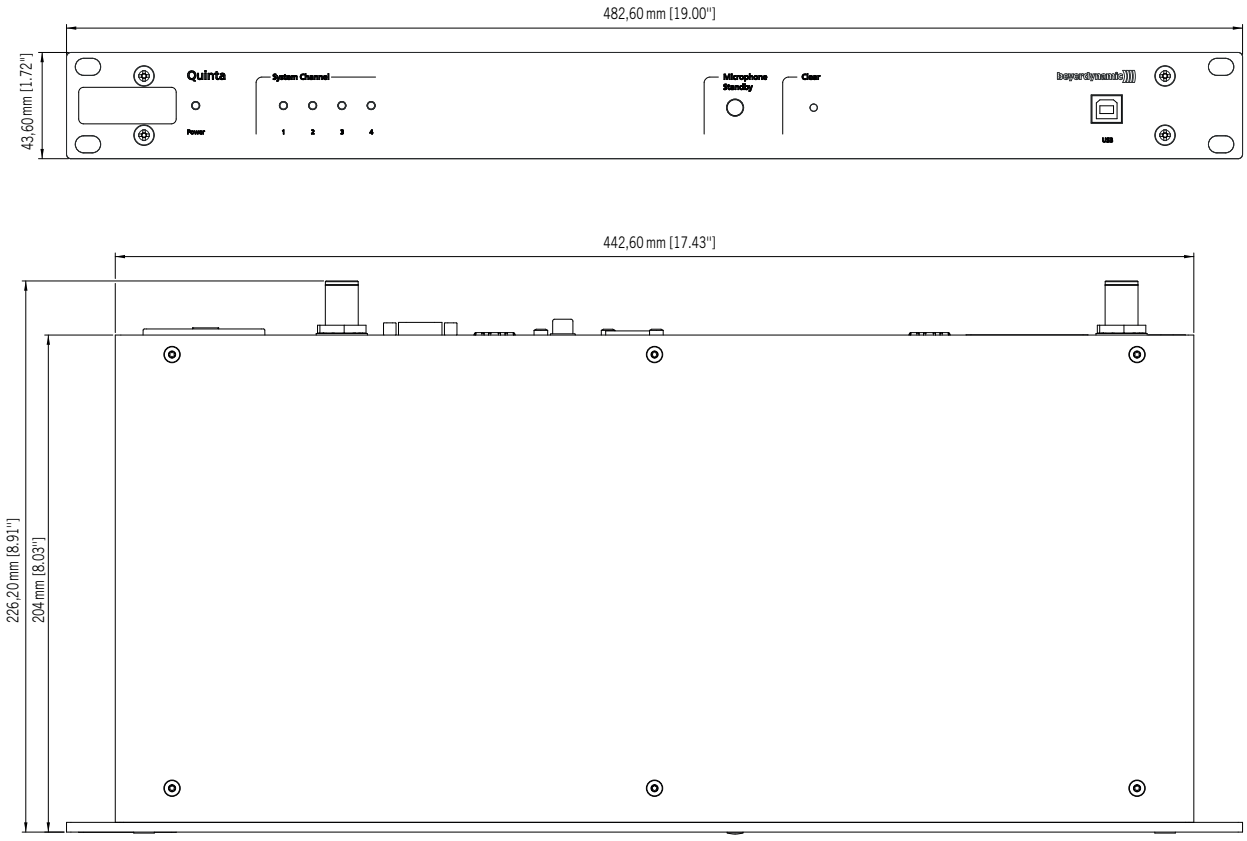
Quinta RS

Dimensions



All dimension in mm [inch]

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