



**THE WIRELESS,
DIGITAL
CONFERENCE SYSTEM**

**HIGH NOISE IMMUNITY AND
DIGITAL ENCRYPTION**

WORLD-WIDE APPROVED FREQUENCY.



TRANSMISSION

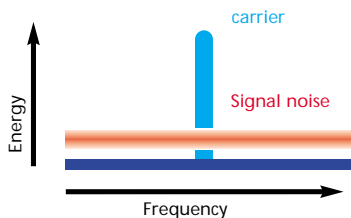
The transmission is in the world-wide approved frequency band of 2.4 GHz. This frequency band can be used without a special permission.

The bidirectional data exchange allows the real time talkback connection to the control system which enables the control of the microphone stations and the multi-channel transmission of 15 audio channels at maximum. The multi-functional use allows to send messages to the microphone stations for voting applications in addition to audio data. It is possible to restore data, i.e. if some data are lost during transmission they can be reproduced. This ensures an excellent audio quality without noise or drop-outs.

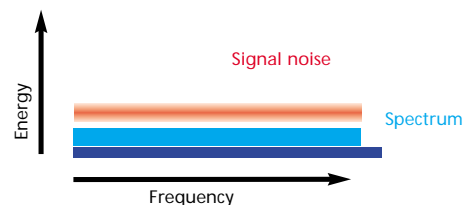
The digitally encoded data guarantee a maximum of safety towards unauthorised listening.

PROCESS

This specific kind of transmission is called DSSS, i.e. Direct Sequence Spread Spectrum. It features a high noise immunity and safety towards unauthorised listening in the 2.4 GHz frequency band. The transmission does not take place with carrier frequencies with a high and detectable energy, but with a transmission of the data into a frequency spectrum below the signal and transmission noise. The content of the data is not focused on one point, but spread over the whole spectrum. Please refer also to the pictures.



Usual transmission with carrier frequencies of the data that contain one audio channel or messages.



Transmission in a frequency spectrum that contains data for several audio channels and messages.

DIGITAL DISCUSSION CONTROL UNIT MCWD 200



Order # 495.151

FEATURES

- Central control unit to control up to 65000 wireless digital microphone units
- Specific DSSS modulation (Direct Sequence Spread Spectrum) ensures a high noise immunity when used with other wireless systems in the 2.4 GHz frequency band
- Wireless transmission in the world-wide approved frequency band of 2.4 GHz
- Digitally encoded audio signals prevent unauthorised listening
- Up to 15 channels for audio transmission are possible (full duplex)
- Four default slots for 3 delegates and 1 chairman
- Integrated antenna splitter/combiner for diversity reception
- Digital compressor/limiter function per input channel (can be configured)
- Manual or Request-to-Talk operation mode
- RS 232 interface for external operation with PC or media control
- MCW Controller Software available for Windows® operating systems as an option
- Configuration of control unit and microphone units with MCW-Editor software under Windows®
- Remote RF-receiving and transmitting antennae for large distances
- Quick setup for discussions without additional sound contracting devices
- Due to RF operation no extensive installations for transmitter or receiver components necessary (compared to infrared technology)
- Additional audio input for e.g. wireless microphones
- Recording output for documentation
- Master output for external sound contracting systems
- All connections are plug-in type
- 19" desktop housing, 2 HU
- Options:
 - CA 2450**
P-C board for 1 transmitting and 1 receiving channel, 2.4 GHz - DSSS (Direct Sequence Spread Spectrum)
3 modules can be used at maximum
 - CA 2451**
P-C board for individual audio transmitting and receiving channels
 - CA 2452**
P-C board for digital audio transmitting and receiving channels

WIRELESS DIGITAL



Preliminary
Data Sheet

WIRELESS, DIGITAL DELEGATE MICROPHONE UNIT MCWD 1021

WITH LOUDSPEAKER
Order # 459.119

MCWD 1011

WITHOUT LOUDSPEAKER
Order # 459.135



FEATURES

- Specific DSSS modulation (Direct Sequence Spread Spectrum) ensures a high noise immunity when used with other wireless systems in the 2.4 GHz frequency band
- Wireless transmission in the world-wide approved frequency band of 2.4 GHz
- Digitally encoded audio signals prevent unauthorised listening
- The following parameters can be programmed:
 - volume level, recording level, lowering characteristics, auto-off behaviour, RF transmitter power, RF input sensitivity, decreased loudspeaker volume with activated microphone
- Direct programming at the microphone unit or with the Editor software via the control unit
- Special function to copy and transmit the processor configuration to other microphone units
- Multi function connection for DC-operation, battery charging and system programming with a programming unit
- Operating time: 10 hours speaking time, 12 hours listening time
- Maximum charging time of 2 hours when the battery (NiMH) is completely empty
- Adjustable Auto-Off switching when nobody talks into the microphone
- APO function for **A**utomatic **P**ower **O**FF when the control unit is in the stand-by mode or switched off
- Integrated loudspeaker with voice equalisation
- Volume level is decreased when the microphone is switched on (adjustable)
- Gooseneck microphone providing an excellent audio quality
- Red illuminated ring around the gooseneck to indicate the ready-to-talk condition of the microphone
- Microphone button to switch the microphone on / off or register in the system
- Dual colour LED for microphone ON (green: microphone switched on and ready to talk)
- Gold-plated charging contacts
- Central transmitting/receiving antenna for frequency band of 2.4 GHz
- Mini stereo jack (3.5 mm) as documentation output for the connection of recorders, dictating machines etc.
- Connection for 3/8" stand adapter (as an option)
- Modern fully metal housing with charcoal-grey, non-glare and scratch-resistant Nextel® finish
- Quick setup for discussions without additional sound contracting devices

beyerdynamic

Manufactured by beyerdynamic GmbH & Co.
Available from www.applesound.co.uk Tel. +44(0)870 741 0123

Subject to change without notice. Non-contractual illustrations.

WIRELESS DIGITAL



Preliminary
Data Sheet

WIRELESS, DIGITAL CHAIRMAN MICROPHONE UNIT MCWD 1023

WITH LOUDSPEAKER
Order # 459.127

MCWD 1013

WITHOUT LOUDSPEAKER
Order # 459.143



FEATURES

- Specific DSSS modulation (Direct Sequence Spread Spectrum) ensures a high noise immunity when used with other wireless systems in the 2.4 GHz frequency band
- Wireless transmission in the world-wide approved frequency band of 2.4 GHz
- Digitally encoded audio signals prevent unauthorised listening
- The following parameters can be programmed:
 - volume level, recording level, lowering characteristics, auto-off behaviour, RF transmitter power, RF input sensitivity, decreased loudspeaker volume with activated microphone
- Direct programming at the microphone unit or with the Editor software via the control unit
- Special function to copy and transmit the processor configuration to other microphone units
- Multi function connection for DC-operation, battery charging and system programming with a programming unit
- Operating time: 10 hours speaking time, 12 hours listening time
- Maximum charging time of 2 hours when the battery (NiMH) is completely empty
- Adjustable Auto-Off switching when nobody talks into the microphone
- APO function for **A**utomatic **P**ower **O**FF when the control unit is in the stand-by mode or switched off
- Integrated loudspeaker with voice equalisation
- Volume level is decreased when the microphone is switched on (adjustable)
- Gooseneck microphone providing an excellent audio quality
- Red illuminated ring around the gooseneck to indicate the ready-to-talk condition of the microphone
- Microphone button to switch the microphone on or off
- Programmable function button
- Priority button (depending on the configuration: mute, clear and priority)
- Dual colour LED for microphone ON (green: microphone switched on and ready to talk)
- Gold-plated charging contacts
- Central transmitting/receiving antenna for frequency band of 2.4 GHz
- Mini stereo jack (3.5 mm) as documentation output for the connection of recorders, dictating machines etc.
- Connection for 3/8" stand adapter (as an option)
- Modern fully metal housing with charcoal-grey, non-glare and scratch-resistant Nextel® finish
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MCWD ACCESSORIES

CA 2411

Order # 464.236



Angled rod antenna, 2.4 GHz. With SMA-plug for the connection to MCWD 200 (with CA 2444 adapter)

CA 2412

Order # 464.244



Rod antenna, 2.4 GHz. For external mounting, SMA-plug for antenna cable, supplied with Velcro® for mounting.

CA 2413

Order # 464.252



Planar antenna, 2.4 GHz. For external mounting, SMA-socket for antenna cable, supplied with wall-mount.

CA 2420

Order # 464.260

Standard cable 2.4 GHz, 38dB attenuation (100 m), sale per metre, bend radius 25 mm

CA 2421

Order # 464.279

Standard cable 2.4 GHz, 38dB attenuation (100 m), N(HF) Male - N(HF) Male, 10 m long, bend radius 25 mm

CA 2422

Order # 464.287

Standard cable 2.4 GHz, 38dB attenuation (100 m), N(HF) Male - N(HF) Male, 20 m long, bend radius 25 mm

CA 2430

Order # 464.295

Cable with low attenuation, 2.4 GHz, 24dB attenuation (100 m), sale per metre, bend radius 30 mm

CA 2431

Order # 464.309

Cable with low attenuation, 2.4 GHz, 24dB attenuation (100 m), N(HF) Male - N(HF) Male, 10 m long, bend radius 30 mm

CA 2432

Order # 464.325

Cable with low attenuation, 2.4 GHz, 24dB attenuation (100 m), N(HF) Male - N(HF) Male, 20 m long, bend radius 30 mm



CA 2441

Order # 464.333



Antenna preamp 2.4 GHz, 27 dB amplification, 24V DC-supply or phantom power, supplied with power supply, N(HF) socket for In/Out



CA 2442

Order # 464.376

Antenna-cable-adapter N(HF) Female - SMA Male

CA 2443

Order # 464.384

Antenna-cable-adapter N(HF) Female - SMA Female

CA 2444

Order # 464.392

Antenna-cable-adapter N(HF) Male - SMA Female conference accessory - type designation

CA 2450

Order # 464.899



P-C board 1 transmitting / 1 receiving channel, 2.4 GHz DSSS (Direct Sequence Spread Spectrum) for MCWD 200

CA 2451

Order # 464.406



P-C board Individual Audio In/Out for MCWD 200

CA 2452

Order # 464.414

P-C board Digital Audio In/Out for MCWD 200