



**DiWA**  
DIGITAL WIRELESS AUDIO

**NEUTRIK**

# Neutrik's DIWA

## Digital Wireless Audio

In the course of the digitalization of radio and television, analog signal transmissions are replaced by digital signals. As digital broadcast only needs 10 percent of the bandwidth in comparison with analog signals of the same quality, free frequencies arise, the so called digital dividend. At first sight this sounds throughout positive, but these released frequencies need to be reallocated and will be used for internet broadband connections in rural areas and for mobile communications in the future. This leads to a dramatic cutback of capacities for wireless applications; however, it is impossible to even think of doing without them on stage, at a concert or any kind of public event.

### Neutrik's Solution: DIWA

These restrictions of utilizable and available radio frequencies for audio-data transmission require new technological concepts. Neutrik, the worldwide leading supplier of professional entertainment connector products met this challenge. 35 years after the foundation of the company, Neutrik sets another milestone by being both a component and solution oriented system supplier. With DIWA (digital wireless audio) Neutrik developed a technology which is capable to fulfil the future demands in an innovative way.

By choosing the 5 gigahertz frequency band all problems with the radio frequency shortage are solved. With DIWA a future-proof system can be built without complex approval processes and extensive search for frequencies. DIWA stands for digital data transmission without data compression, combined with patented error correction functions and offers sound quality on highest level. By the use of state-of-the-art technology the latency is extremely short (3 milliseconds) and reliability as well as interference resistance are guaranteed.

#### DIGITAL

##### Digital Wireless Audio

Digital audio data transmission (DIWA protocol), 24 bit A/D conversion

#### PURE SOUND

##### Uncompressed data transmission

DIWA is different from other analog systems without compander. Signals are not compressed, thus they don't lose quality. FED (forward error correction) and linear prediction algorithm eliminate possible disturbances.

#### 5 GHz

##### Future-proof, license-free, globally applicable

The transmission of the audio signals in the 5GHz band offers failure-free operation without the need to worry about licenses, limitations or interactions of other systems (e.g. 2.4GHz equipment, Bluetooth, microwave etc.)

#### MULTICHANNEL

##### Upgrade to your needs

DIWA doesn't only support one transmission channel but offers also the possibility to realize multichannel systems.

#### EASY OPERATION

##### Plug and play

Easy setup and operation, automatic frequency management, no manual frequency or channel selection necessary

#### BIDIRECTIONAL

##### Send or receive

Systems based on the DIWA technology can send and receive audio signals. Therefore not only signal sources (instruments, microphones) but also signal receivers (speakers, mixers) can be integrated into a digital wireless system.

# Neutrik's XIRIUM Products



TX 



RX 



TRX 

# Neutrik's XIRIUM

## Digital Wireless Pro Audio System

Following the motto „Discovering new Dimensions“ Neutrik presents the first product based on the DIWA technology. With XIRIUM, a professional multichannel wireless system, Neutrik is ahead of times. XIRIUM combines digital receiving and sending lines in one system and is equivalent to highest sound quality, unique reliability and easiest handling.

A 4 channel basis unit (XIRIUM TRX) together with mobile send (XIRIUM TX) and receiving units (XIRIUM RX) give first access to the XIRIUM system. With an extension unit (XIRIUM TRX Slave) the system can easily be extended to 8 channels. Allocation and the selection of input and output channels are flexibly configurable and allow the versatile use of the system. The innovative DIWA wireless technology as well as its usability and easy handling build a unique package of a future-proof solution. XIRIUM is available in autumn 2010 in specialist shops.

### Specifications

- |   |                                |                                   |
|---|--------------------------------|-----------------------------------|
| • Transmission format: DIWA digital audio | • Distortion THD: 0,01% @ 1kHz | • Latency: 3ms                    |
| • Frequency response: 20 Hz – 20 kHz      | • Transmission range: typ. 30m | • Digital signal: 24 bit / 48 kHz |





  
**XIRIUM**  
DIGITAL WIRELESS PRO AUDIO SYSTEM

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