netConcert

Digital Uncompressed Microwave STL Radio Link

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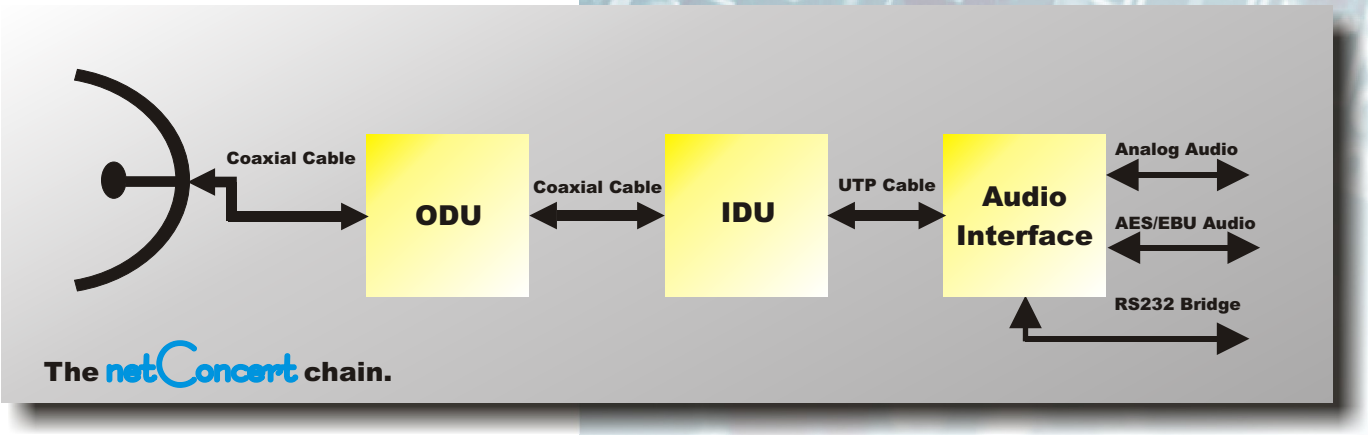
The ever growing need for high quality audio delivery, posses great challenges to STL radio links.
Digital audio quality must be maintained throughout the delivery chain and this can only be accomplished using digital transmission. Numerous compression schemes have been tried, but at the end, most broadcasters agree that only uncompressed audio transmission can deliver the original audio quality, combined with the low latency needed for live applications.

netConcert incorporates the latest digital audio networking technology, to provide a turnkey, high quality, affordable, low latency solution for a studio to transmitter link, capable of delivering high quality uncompressed digital and analog audio.

- **High quality bi-directional uncompressed analog audio and AES/EBU digital transmission.**
- **Choice of 48/96 KHz internal sampling rate.**
- **Full AES/EBU input sampling rate support.**
- **Low latency: typically 5ms.**
- **SNMP control capability.**
- **Choice of microwave frequencies including the unlicensed bands.**
- **Flexible indoor-outdoor configuration with single coaxial cable connection.**
- **Flexible audio interface connection using cheap network cabling.**
- **Bi-directional RS232 serial bridging connection with configurable data rate.**
- **Easy installation and antenna alignment.**
- **Simple and straightforward operation.**



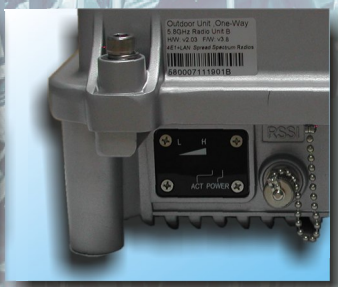
The netConcert chain.

Outdoor unit (ODU)

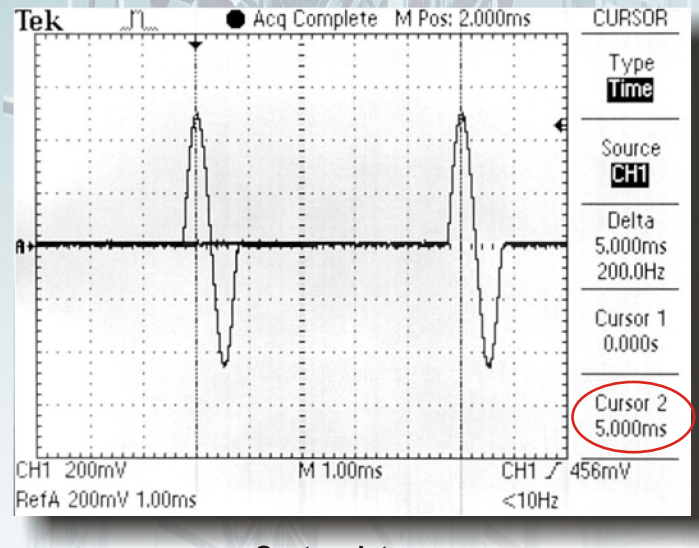
Indoor unit (IDU)

Audio Interface unit

Audio connections



RSSI Indicator



System latency

Flexibility

netConcert consists of one outdoor and one indoor unit, connected with a single coaxial cable and one audio interface unit, which can be connected with up to 100 m of CAT-5 networking cable. This scheme permits the installation of the audio interface at the most convenient position and avoids long runs of audio or RF cables.

Multiple Audio Formats

netConcert offers two bi-directional analog audio channels featuring high quality 24bit, 48 or 96 KHz sampling rate, A/D & D/A converters & one bi-directional stereo AES/EBU chanel, supporting 32,44.2,48 or 96 KHz sampling rates.

Easy installation and operation.

Installation is trouble-free as no complicated, time consuming settings are required and a special antenna alignment indicator on the ODU helps to define antenna alignment, even without special instruments.

A complete set of diagnostic indicators on the IDU & Audio Interface, make monitoring and troubleshooting the system an easy task.

The system offers also a bi-directional RS232 connection which can be used for ancillary data etc.

Excellent RF & Audio performance.

netConcert uses a highly reliable, digital QPSK modulation scheme with Forward Error Correction.

No audio compression is used and this along with its low latency (typical 5ms), provides excellent audio quality and makes netConcert especially suited for live production.

netConcert specifications

ANALOG

Type:	Balanced
Input connectors:	XLR female shielded
Input Impedance :	30 Kohms
A/D converter :	24bit over sampling
Input Level (0dBFs):	+18dBu
Input sample rate:	48/ 96 KHz
Output connectors:	XLR male shielded
Output Impedance :	200 ohms
D/A converter :	24bit over sampling
Output Level (0dBFs, 10 Kohms):	+18dBu.
Sample rate:	48/ 96 KHz.
THD+N:	<-106 dB input or output.
Frequency Response:	20Hz to 20KHz +/-0.25dB (48 KHz sample rate) 20Hz to 40KHz +/-0.25dB (96 KHz sample rate)
Dynamic Range:	> 112 dB, 48kHz and 96k sample rates
Latency:	5ms (typical)

AES/EBU

Input connector:	XLR female shielded
Output connector:	XLR male shielded
Input sample rate :	32/44.1/48/ 96 KHz (sample rate converted to 48/96 KHz)
Output sample rate :	48/ 96 KHz
THD+N:	<-135 dB
Dynamic Range :	140dB input or output

RF

Frequency of operation:	5150~5850 MHz (Other bands possible)
Modulation :	QPSK
TX Output power :	=22dBm (max. 27dBm)
I.F :	TX: 310 MHz/ RX:70 MHz
RX Dynamic Range:	-84dBm ~ -15dBm
Sensitivity (10^{-3} BER) :	-80dBm

RS232 Bridge

Baud rate:	Factory configurable up to 57600 bits/sec
Format :	All 8-bit formats, no handshaking.

POWER SUPPLY

Input Voltage:	100-240 VAC 50-60 Hz
Power consumptiont :	75 W (total all units)

MECHANICAL

Dimensions:	IDU: 1 RU, 254mm deep ODU: 392x310x156mm Audio interface: 1 RU, 270mm deep

Specifications may change without notice.

for more info contact: