

AVE Digital Mixers

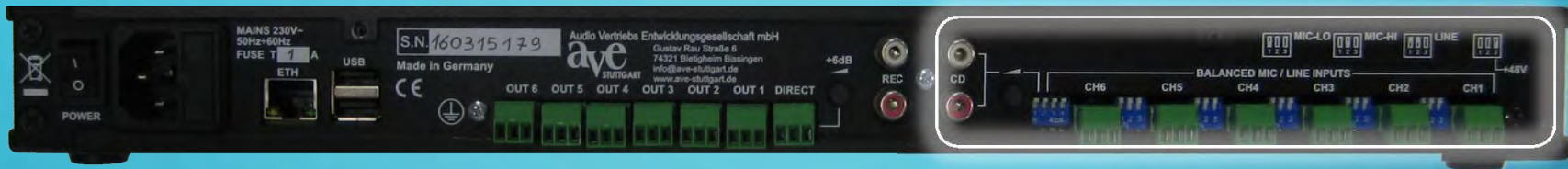
ave
STUTT GART

DMX66



THE NEW DIGITAL AUDIO MIXER BY AVE MBH – STUTT GART

ANALOG INPUT SECTION



- Number of balanced inputs
- Number of unbalanced inputs
- Analog gain (manual adjustable)
- Nominal sensitivity (balanced input) MIC-HI
- Nominal sensitivity (balanced input) MIC-LO
- Nominal sensitivity (balanced input) LINE
- Phantom power (dip-switch activated)
- Balanced input impedance (XLR)
- Unbalanced input impedance (RCA)
- Balanced input CMRR
- EIN Mic (20÷20kHz weighted) $R_s=150\text{ohm}$
- Frequency response MIC (-3dB)
- Frequency response LINE (-3dB)
- Input protections

6 (Phoenix 3,5mm type connector)

1 (RCA type connector)

0 dB ÷ 30 dB

-58 dBu (1 mV_{rms})

-34 dBu (15 mV_{rms})

-19 dBu (87 mV_{rms})

+48 V stabilized, very low noise

5 k Ω @ 1 kHz

33 k Ω @ 1 kHz

<60 dB @ 1 kHz

-126 dBV

160Hz ÷ 20kHz

40Hz ÷ 20kHz

radio frequency interference (RFI)

transient voltage spikes

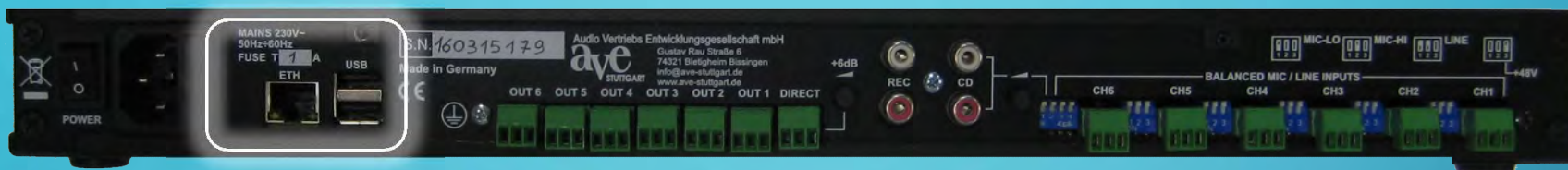
external overvoltage

ANALOG OUTPUT SECTION



- Number of balanced outputs 6 + 1 (Phoenix 3,5mm type Connector)
- Number of unbalanced outputs 1 (RCA type connector)
- Dynamic range 120 dB ("A" weighted)
- Residual noise of output driver -100 dBu (20 Hz ÷ 20 kHz)
- Nominal level (balanced output) 0 dBu (0,775 V_{rms})
- Maximum level (balanced output) 20 dBu (7,75 V_{rms})
- Balanced Output impedance 140 Ω typical
- Unbalanced Output impedance 70 Ω typical
- Output protections short circuits
external overvoltage

DATA CONNECTIONS



Available Data Connections:

- ETHERNET 802.3
- Wi-Fi 802.11
- USB 2.0
- Bluetooth 4.1

IEEE 802 **IEEE 802.11**



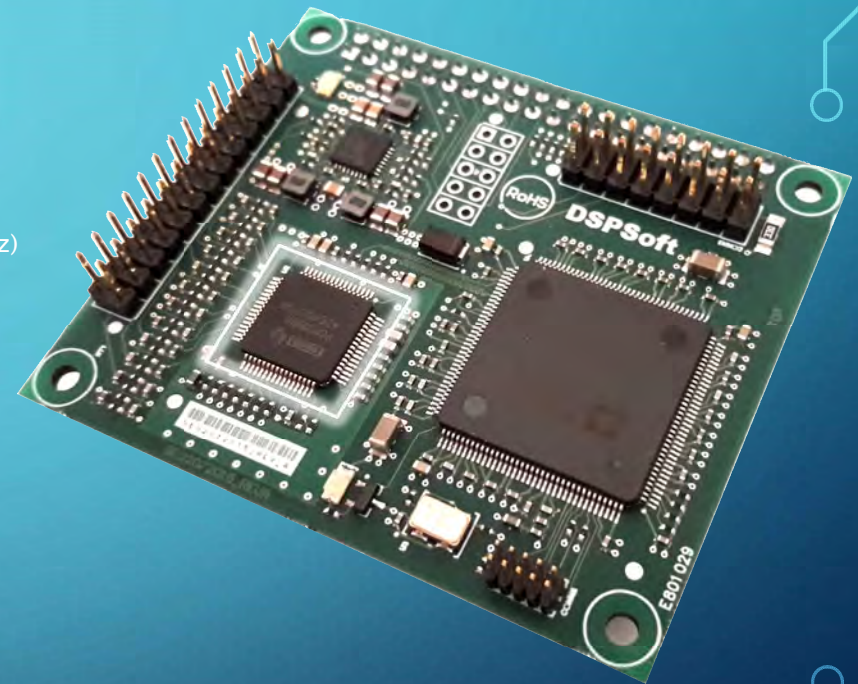
DIGITAL AUDIO CONVERSION

Analog to Digital Conversion:

- Bit resolution 24-bit
- Converter type sigma delta
- Sampling frequency (F_s) 48 kHz
- Signal to noise ratio (SNR) 104 dB ("A" weighted @ 48 kHz)
- Dynamic range 104 dB (-60 dB_{F_S})
- Total harmonic distortion (THD) -93 dB (1 kHz, -1 dB_{F_S})
- Oversampling factor 512 F_s
-

Digital to Analog Conversion:

- Bit resolution 24-bit
- Converter type sigma delta
- Sampling frequency (F_s) 48 kHz
- Signal to noise ratio (SNR) 112 dB ("A" weighted @ 48 kHz)
- Dynamic range 112 dB (-60 dB_{F_S})
- Total harmonic distortion (THD) -94 dB (1 kHz, 0 dB_{F_S})
- Delay time 0,58 ms
- Oversampling factor 512 F_s



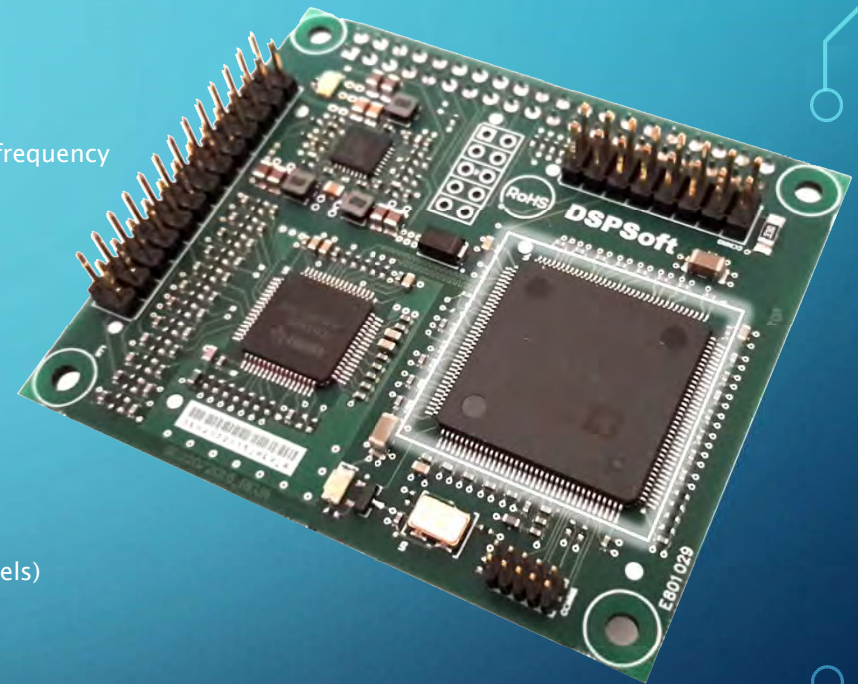
DIGITAL SIGNAL PROCESSING

Inputs Audio Blocks:

- Highpass/Lowpass filter
Butterworth filter type with tunable cutting frequency and selectable slope 12/24/48 dB/oct
- 5-PEQs equalizer
Frequency [20 Hz ÷ 20 kHz]
Gain [-15 dB ÷ 15 dB]
Bandwidth [0,01 ÷ 6 oct]
Threshold [-80 dB_{FS} ÷ 0 dB_{FS}]
Hold Time [100 ms ÷ 10 s]
- Noise gate
Hold Time, [100 ms ÷ 5000 ms]
Attenuation [-60 dB ÷ 0 dB]
NOM Gain (increase post gain of -3 dB for each doubling of opened automix channels)
Max opened channels [1 ÷ 6]
- Fader level [-100 dB ÷ 10 dB]

Input / Output Audio Routing Matrix:

- Matrix size 6 In / 6 Out
- Matrix cross point level adjusting [-60 dB ÷ 10 dB]



DIGITAL SIGNAL PROCESSING

Output Audio Blocks:

- Easy Equalization for passive sound columns

Series AT
Series AT-N
Series ASM
Series Live SM
Series Konzert SM

- 31-Bands graphic equalizer

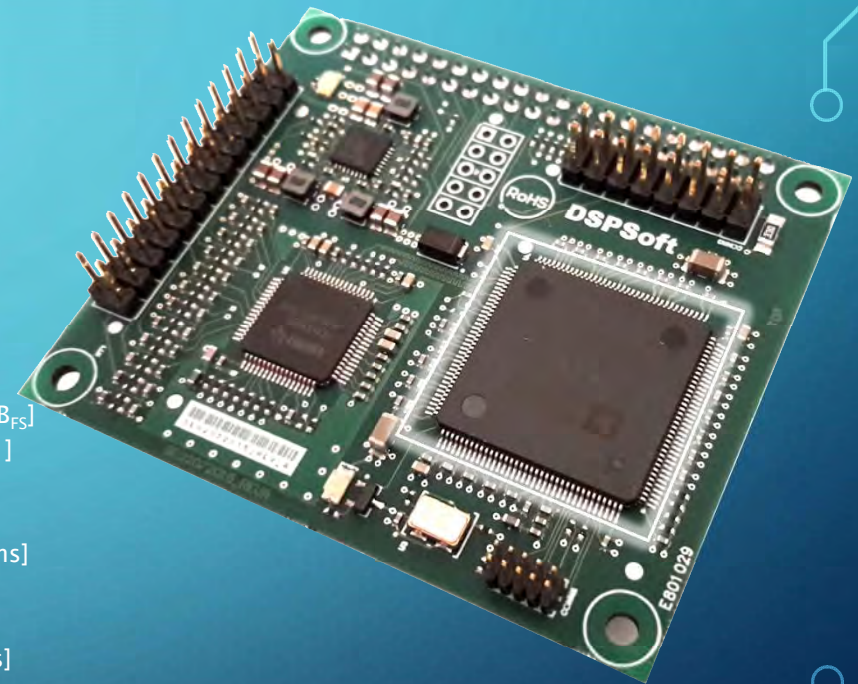
Gain [-12 dB ÷ 12 dB]

- Dynamic compressor range

Threshold [-90 dB_{FS} ÷ 20 dB_{FS}]
Ratio [R=1:1 ÷ R=20:1]
Post Gain [-20 dB ÷ 20 dB]
Attack Time [1 ms ÷ 250 ms]
Release Time [10 ms ÷ 2500 ms]

- Limiter
- Delay
- Phase control
- Output level
- Master level

Threshold fixed at 0 dB_{FS}
[0 m ÷ 35 m], [0 ms ÷ 100 ms]
[0°, 180°]
[-100 dB ÷ 10 dB]
[-100 dB ÷ 10 dB]



MP3 PLAYER – AUDIO WEBCASTING



MP3 Player:

- DMX66 can play digital audio files using any USB Flash Drive Stick.

Streaming Media Server:

- MX66 is a live audio streamer. It records audio from an input/output channel, encodes it and sends it to a streaming server.
- MX66 can do live streaming, so people can hear your video while it is being recorded.
- It can be used to create an Internet radio station or a privately running jukebox and many things in between. It is very versatile in that new formats can be added relatively easily and supports open standards for communication and interaction.
- MX66 supports TCP/IP, UDP, RTSP and RTMP streaming protocols.



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