

Digital Mixers

DM8000

Advanced Digital Audio Processor
for Installation Applications with
Configurable DSP, Audio Networking
and Acoustic Echo Cancellation

Technical Specifications

Analogue Inputs

Number of channels	10 (8 AEC enabled)
Type	Analogue, electronically balanced Euroblock connectors
Impedance	10 k Ω
Maximum input level	+24 dBu
Gain range	0 to +66 dB
Common mode rejection	Typically, -60 dB at 1 kHz
Crosstalk (inter-channel @ 1 kHz)	< 75 dB
Phantom power	+48 VDC

Analogue Outputs

Number of channels	6
Type	Analogue, electronically balanced Euroblock connectors (Pin 2 hot)
Output impedance	100 Ω , balanced
Maximum output level	-31 dBu to +24 dBu (configurable in 6 steps)

ULTRANET Digital Network

Number of channels	16 in / 16 out
Sampling rate	48 kHz
Latency	< 0.9 ms
Connector	2 x RJ45
Cable	Shielded CAT-5
Cable length	up to 75 m / 250 ft

USB Audio

Number of channels	2 in / 2 out
Resolution	24-bit
Sampling rate	48 kHz
Type	Audio Class 1.0 compliant, asynchronous
Connector	USB, type B

GPIO

Number of channels	6
Input voltage	0 to 5 V
Input impedance	4.7 k Ω to +5 V (2-wire mode) > 1 M Ω (3-wire mode)
Output voltage	0 / 5 V (unloaded)
Output impedance	470 Ω (source) 10 Ω (sink)
Output current	10 mA (source) 60 mA (sink)
+5 V supply current	150 mA max

RS232

Format	8-N-1, 38, 400 baud
Connector	DB9 Female

Digital Mixers

DM8000

Advanced Digital Audio Processor
for Installation Applications with
Configurable DSP, Audio Networking
and Acoustic Echo Cancellation

Technical Specifications

Performance

Frequency response	20 Hz to 20 kHz (±1 dB, input to output @ +4 dBu)
THD+N (20 Hz to 20 kHz @ 0 dB gain +4 dBu output)	< 0.005%
Equivalent input noise	-125 dBu (20 kHz BW @ 66 dB gain, R _s = 150 Ω)
Dynamic range	> 105 dB (20 kHz BW, input to output @ +24 dBu)
A/D - D/A conversion	multi-bit ΣΔ
AEC tail length	300 ms
AEC convergence	up to 100 dB/sec

Power Requirements

Type	Switch-mode power supply
Voltage	100-240 VAC, 50/60 Hz
Consumption	48 W
Mains connection	Standard IEC connector

Dimensions

Height	49 mm
Width	483 mm
Depth	300 mm

Weight

Net	3.9 kg
Shipping	4.7 kg

Temperature Range

Operation	+0° C to +45° C
Storage	-20° C to +60° C

Due to a policy of continual improvement, Klark Teknik reserves the right to alter the function or specification at any time without notice.

DM8000

Advanced Digital Audio Processor
for Installation Applications with
Configurable DSP, Audio Networking
and Acoustic Echo Cancellation

Architecture & Engineering Specifications

The Digital Audio Processor shall provide an open software architecture platform in a standard 1U 19" rack mount chassis.

The Digital Audio Processor will come equipped with a comprehensive library of digital signal Processing algorithms optimised for installation applications.

In addition the Digital Audio Processor shall provide eight channels of wideband Acoustic cancellation for telephone and video conferencing, as well as an auto mix functionality for multiple Microphone applications.

The Digital Audio Processor will come equipped with Multi format IP-based audio networking functionality coupled with a PC based intuitive graphical user environment for simple set up and integration.

The Digital Audio Processor shall be fitted as standard with the following inputs and outputs:

- 10 High headroom analogue Mic/ line inputs
- 6 electronically balanced line level outputs
- An Optional Audio expansion module
- An Ethernet Port for software configuration
- An RS232 connection for 3rd Party control system interfacing
- GPIO Connections for External Remote control

The Digital Audio Processor shall be fitted with an internal switch mode power supply, capable of operation at AC voltages ranging from 100 to 240 VAC, at 50/60Hz. The mains connector shall be a standard IEC receptacle.

The Digital Audio Processor dimensions shall be 49 mm high x 483 mm wide x 300 mm deep (1.92 x 19.01 x 11.81"). The nominal weight shall be 3.9 kg (8.6 lbs).

The Digital Audio Processor shall be the KLARK TEKNIK model DM8000, and no other alternative shall be acceptable.