



FBT Elettronica S.p.A. Headquarters and Factory: Recanati, Italy Tel. +39 071 750591 Fax +39 071 7505920 info@fbt.it www.fbt.it

# DMM 8008

## Digital Matrix Mixer 8 In - 8 Out



The DMM 8008 is a high performance 8 input x 8 output digital matrix mixer; Specially designed for commercial and professional application such as Conference rooms, Auditoriums, Sport utility buildings, House of worship, Pubs and Disco. It includes 8 independently switchable Line/Mic inputs with Phantom power supply, 8 Line outputs, managed by a powerful 48kHz 24 Bit DSP engine, in addition to high performance 24 Bit AD/DA converters. The DMM 8008 supports a full matrix mixing mode where inputs may be routed/mixed in any ratio to any output. Each Mic/Line input channel provides Lo/Hi pass 1st order filters, 3-band parametric EQ, Noise Gate function and Gain control. In addition Mic inputs include a Feedback Eliminator function, based on a powerful «Pitch Shifting» algorithm, particularly suitable for voice applications. Automixing function automatically adjusts input level to make operating easier using either NOM (Number of Open Mics) attenuation function or Gain sharing algorithm. In addition Ducking process enforces a «priority order» of open microphones in order that high-priority inputs attenuate lower-priority inputs. Each output offers up to 5-band of parametric equalization, crossover filters, RMS compressor, Peak limiter, Phase and Delay controls; 8 digital In/Out ports are provided for general purpose (preset recall, trigger third parts or device); 8 front knobs provides a quickly way to control input Gain; Up to 32 units can be managed by software applications.

### 3 AVAILABLE MODE TO MANAGE THE DM 8008:

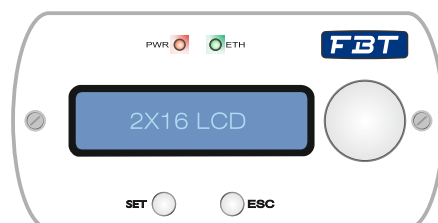
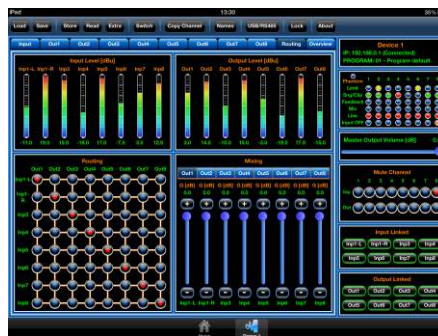
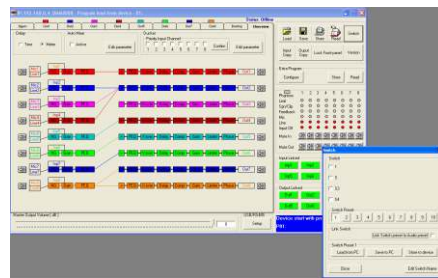
- Via RS 485 / TCP-IP / USB  
PC software for system design and real time control

- Via TCP-IP  
Free software application available for iPad®

- Via RS 485  
Optional Wall Control Panel WP 8008 configurable for global or single zone control

## Features

- Excellent audio performance with 24 bit converters coupled with 48kHz sample rate
- 8 Mic/Line inputs, 8 outputs with full matrix mixing, 3 band parametric equalization and Low/High pass filters per input channel
- 5 band parametric equalization per output channel; each band can be switched to peaking, Low/High shelving with variable Q response
- Crossover filters with slopes from 6dB/Octave up to 24dB/Octave including Butterworth, Bessel, Linkwitz-Riley
- Gain control, Noise Gate, Feedback eliminator (Mic input only) per input channel
- Each output features a precision dynamic range controller composed of a Peak Limiter and a RMS Compressor with selectable ratio and variable knee
- Automixing functions include: Configurable NOM attenuation, Gain sharing algorithm, Priority Ducking
- Adjustable Delay time up to 380mS per output channel
- Front panel interactive LCD display for local access and configuration
- Preset manager
- Front panel 6-led status indicators per In/Out channel
- 8 front knobs available for Mic input Gain control
- 4 input contacts for additional 4 preset selections with priority configuration
- 4 digital output ports for triggering external devices
- Simultaneous control up to 32 units via PC software - iPad®
- Security lockout
- TCP/IP, RS 485 and USB connection for remote controls

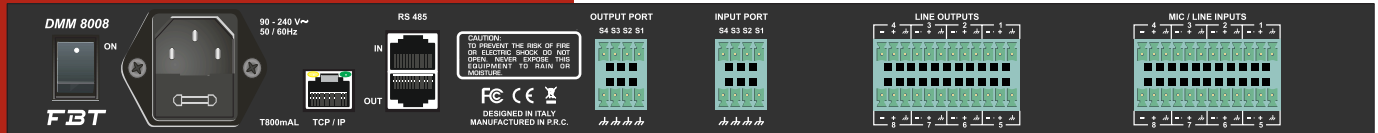




FBT Elettronica S.p.A. Headquarters and Factory: Recanati, Italy Tel. +39 071 750591 Fax +39 071 7505920 info@fbt.it www.fbt.it

# DMM 8008

## Digital Matrix Mixer 8 In - 8 Out



Analog Input .....	8 electronically balanced ( Mic - Line - Unbalanced )
Analog Output .....	8 electronically balanced
Maximum Input Level .....	Line: +14dBu; Mic: -20/0dBu ( +6dBu unbalanced )
Mic Input Gain .....	34dB ( 22dB analog, 12dB digital )
Maximum Output Level .....	+14dBu
THD+N .....	0.005% at 1kHz 0dBu
S/N .....	>104dBA
Frequency Response .....	20Hz-20kHz +/-1dB
AD & DA Converters .....	4 x AK5385B 24bit, 1 x Ak4358 24bit (48kHz)
Phantom Power .....	48Vdc

### Audio

DSP Engine .....	Dream SAM3716, 24bit (data) x 96bit (coeff.)
DSP Resolution .....	24 x 32 bit for filtering process; 96bits resolution on intermediate computation results
Input Equalization .....	3-band parametric selected as peaking or Low/High shelving with variable Q per input channel Low/High pass 1st order filter per input channel
Output Equalization .....	5-band parametric EQ selected as peaking or Low/High shelving with variable Q per output channel From -12dBu up to +12dBu by 0.5dBu resolution steps
Filter Gain .....	Selectable with a 1/24th of octave resolution step from 20Hz up to 20kHz
Center Frequency .....	Q from 0.4 up to 10 by 0.1 resolution steps
Filter Q/BW .....	Butterworth 6/12/18/24dB per octave Bussel, Linkwitz-Riley and custom 12/24dB per octave
Crossover Section HPF/LPF .....	Filter resolution 1/24th of octave
RMS Compressor and Peak Limiter .....	Threshold from 14dBu up to -34dBu Attack time from 5ms up to 200ms (1ms resolution up to 20ms, 10ms resolution up to 100ms and 20ms resolution up to 200ms) Release time from 0.1 sec up to 3 sec (0.1 sec resolution) Ratio from 1:1 to 32:1 (compressor only) Adjustable soft or hard knee (compressor only)
Delay .....	380,998 ms 21 us increment/decrement steps per output channel only
Feedback Eliminator .....	Pitch shifting algorithm only for Mic input channels
Automixing Functions .....	NOM attenuation, Gain sharing algorithm and priority ducking processing

### DSP & Processing

### General

Device Presets .....	6 user presets + 4 by using S1-S4 digital input ports
Front Panel .....	2 x 24 character LCD display with white/blue LED backlight 6-LED status indicators (Line, Mic, Mute I/O, Signal, Clip, Limiter) 1-LED indicator Phantom power 6 x front push button (Preset recall, Setup) USB type B connector
Rear Panel .....	2 x 12 pin Phoenix connector (Mic/Line inputs) 2 x 12 pin Phoenix connector (Line outputs) 2 x 4 pin Phoenix connector (S1-S4 digital input ports - TTL level 0-5V) 2 x 4 pin Phoenix connector (S1-S4 digital output ports - TTL level 0-5V) 2 x RJ45 for RS485 In/Out connection 1 x RJ45 with activity leds for Ethernet connection (10/100 TCP-IP) IEC C13 16A connector; power on/off switch
Optional Device .....	FBT WP8008 wall panel control (Built on dedicated box included: W x H x
Included Software .....	D= 5,66" x 3,14" x 1,77")
Main AC .....	PC users interface; Free app. for iPad®
Dimensions .....	90-240Vac (50/60Hz) - 40W
Weight, Net/Shipping .....	19" x 1.75" x 9" ( 483 x 44 x 229mm ) - 1RU

Specifications subject to change without notice.