



SM8 Professional Digital Monitoring System



Exclusive Acoustical Technologies

- **40 kHz bandwidth Beryllium tweeter**
The reversed dome tweeter is a hallmark of Focal. As a result of more than twenty years of development into a tweeter that could produce a high output, but without requiring high energy input and without increasing directivity. And now the company is ready to make a major leap forward with the introduction of the pure Beryllium version.
- **Focus Ring**
This innovative and patented magnetic structure provides extremely strong flux density (2T) with the highest thermal stability achievable.
- **The “W” cone**
For more than 15 years the composite cone sandwich technology is a Focal exclusivity. The “W” process - first initiated in 1995 with the Grande Utopia - now provides a true optimisation of the frequency response by fine tuning of mass, rigidity and damping parameters.
- **Passive radiator**
In order to reproduce the lowest frequency range within a very small volume the SM8 is equipped with a no compromise, custom designed “W” passive radiator.

Advanced Digital Technologies

- **24 Bits 96kHz converters**
In addition to a direct digital input, the SM8 uses the latest high quality chipsets performing 24 Bits 96kHz A/D and D/A conversion.
- **Multiple equalisation facilities**
The combination of powerful DSP devices and carefully designed algorithms allows multiple and very precise equalisation.
- **Low sensitivity to vertical or horizontal placement**
Due to its internal digital processing, the SM8 can use FIR (Finite Impulse Response) filters which have the property of allowing both very high selectivity and perfectly linear response : indeed the actual filters between the LF and HF sections have slopes reaching 200 dB/octave !
Due to the drastic reduction of acoustic interaction between drivers, landscape and portrait orientation are virtually equivalent in terms of performance.
- **Remote control facilities**
The SM8 can be remotely controlled from various sources: PC/Mac dedicated “Focal manager” software, PDA, MIDI link or proprietary remote control unit.

High Performance Amplification

- **High efficiency, low distortion class “D” output stage**
Bi-amplified (200W rms/Bass, 100W rms/Treble) the SM8 uses low distortion class “D” power stages for the low frequency channel, reducing dramatically heat at high power, while wide bandwidth class AB stage is used for the tweeter.

Focal Professional Division - Manufactured by Focal-JMLab®

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SM8 Specifications

SYSTEM

Frequency response	45Hz – 40kHz +/- 2dB
Maximum SPL	115dB SPL (peak @ 1m)

INPUT SECTION

Analogue input	Type / Impedance Connector Sensitivity A/D converter	Electronically balanced / 10kOhms XLR +4dBu 24 bits resolution, 96kHz sampling rate
Digital input	Format Connector Sampling rates	AES (110 Ohms with transformer) XLR 44.1, 48, 88.2 or 96kHz (automatic detection)
Internal section	Processing D/A converters	Internal DSP 24 bits resolution, 96kHz sampling rate
Dynamic range	> 110dB	

AMPLIFIER SECTION

LF stage	Class D / 200W rms
HF stage	Class AB / 100W rms

INTERFACE

System Control	Switchable between	Wireless Infra-Red (handheld) Serial RS-232 (PC/Mac) MIDI
Power supply	Mains voltage Connection	230V (1.6A fuse rating) or 115V (3.15A fuse rating) IEC inlet and detachable power cord

USER CONTROLS AND INDICATORS

Hardware controls	Left / Right AES channel selection switch System control source (Interface) switch
Software controls	Output level, Shelving EQ, General EQ, Presets, Delays
Indicators	Power on LED, Infra-Red reception LED

TRANSDUCERS

Woofers	“W” cone, long excursion Focal 8W5456B 8” drive unit
Passive radiator	“W” piston, extra wide surround Focal 8WPP51 8” radiator
High frequency	Focal TBU SM8 Beryllium dome tweeter with Focus Ring magnet
Shielding	Integral through cancellation magnets / cans or by magnet design

CABINET

Construction	19mm MDF panels with internal braces
Finish	Slate grey metallic lacquer on side panels Dark red veneer on top / bottom
Dimensions (HxWxD)	380mm x 268mm x 320mm - (15”x10.5” x 12.6”)
Weight	15kg - (33lb)