

SM8

Professional digital monitoring speaker



Exclusive acoustical technologies

- **Beryllium inverted dome tweeter**

The inverted 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. The introduction of the pure Beryllium dome, capable of covering 5 full octaves from 1,000 to 40,000Hz constitutes a new decisive advance regarding new audio formats.

- **Focus Ring**

This innovative and patented magnetic structure provides extremely strong flux density (2 Teslas) with the highest thermal stability achievable, without any risk of irreversible demagnetization when listening at high level.

- **The "W" cone**

Focal has been developing the technologies of composite sandwich cones for more than 15 years. The "W" process (Glass/Foam/Glass), first initiated in 1995 with the reference loudspeaker Grande Utopia, now provides a true optimization 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 without any air flow noises, 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 equalization facilities**

The combination of very powerful DSP (Digital Signal Processor) devices and carefully designed algorithms allows multiple and very precise equalization.

- **Vertical or horizontal use**

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 200dB/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 amplifier Class "D"**

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.



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BP 374 - 108, rue de l'Avenir - 42353 La Talaudière cedex - France - Tel. (+33) 04 77 43 57 00 - Fax (+33) 04 77 43 57 04



Technical specifications

System		
Frequency response	45Hz - 40kHz +/-2dB	
Maximum SPL	115dB SPL (peak @ 1m)	
Input section		
Analog input	Type / Impedance	Electronically balanced / 10kOhms
	Connector	XLR
	Sensitivity	+ 4dBu
	A/D Converter	24 bits resolution, 96kHz sampling rate
Digital input	Format	AES (110 Ohms with transformer)
	Connector	XLR
	Sampling rates	44.1 ; 48 ; 88.2 or 96kHz (automatic detection)
Internal section	Processing	Internal DSP
	D/A converters	24 bits resolution, 96kHz sampling rate
Dynamic range	> 110dB	
Amplification		
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	230V (1.6A fuse rating)
	Connection	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		
Woofer	"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	7 ^{1/2} " (19mm) MDF panels with internal braces	
Finish	Side panels in slate grey metallic lacquer Dark red veneer on top / bottom	
Dimensions (H x L x D)	14 ^{15/16} x 10 ^{9/16} x 12 ^{5/8} " (380mm x 268mm x 320mm)	
Weight	33lb (15kg)	

The technical specifications of these products may be modified.