

# UFM-265

## Architectural and engineering specifications

The loudspeaker unit shall be of the two-way active type with integrated electronics, two direct-radiating 6.5" low/mid speakers in a vented enclosure and one 1.1" ferrofluid cooled soft-dome tweeter, optimized for high power handling.

The complete electronics shall be mounted on a chassis which is placed in the backside of the enclosure. Electronics shall consist of active filters to implement crossovers and equalization, protection circuitry and two power amplifiers. Filter section shall include a 'contour' filter push-push switch forming an integral part of the volume control potentiometer which enables the user to equalize the response in the mid frequency band centered around 800 Hz. Protection shall consist of a Dynamic Level Control (DLC) circuit that limits the dissipated mean power of the transducers to a safe value, an overload monitoring circuit that reduces the input gain by 8 dB if an input overload occurs, an amplifier DC protection circuit and a high chassis temperature protection circuit. A bi-color LED at the rear shall display the status of the 'contour' filter, the DC- and the temperature protection. The balanced signal input connector shall be a 3p female XLR type (p2 = +, p3 = -, p1 = gnd) and the full-range signal output link connector shall be a 3p male XLR type (hardwired to input connector). The mains connector shall be a male DO-3 type and the mains link connector shall be a female DO-3 connector. All connectors and controls shall be grouped together.

The enclosure shall be constructed of laminated birch plywood and be shaped as a floor monitor with a floor to baffle angle of 30°. It shall be equipped with two handles and non-skid aluminum framed profile at the bottom side. The front of the enclosure shall be covered with open cell foam mounted on a protective perforated steel grill. The enclosure shall be finished with a polyurethane coating.

The complete loudspeaker unit shall meet the following criteria:

Frequency range of 75 - 20k Hz on axis (+/- 4 dB), max. SPL at 1m of 116 dB<sub>SPL</sub> continuous and 119 dB<sub>SPL</sub> peak, - 6 dB coverage angle of 100° horizontal by 120° vertical averaged 2k to 15k Hz. Dimensions are 9.6" (243 mm) H x 15.6" (397 mm) W x 15.7" (400 mm) D. Weight 29 lbs. (13 kg).

The loudspeaker unit shall be the AXYS model UFM-265.

## Specifications<sup>1</sup>

### Acoustical<sup>2</sup>:

Frequency range <sup>3</sup>	: 75 - 20k Hz (+/-4 dB)
Max SPL (1m) <sup>4</sup>	- Continuous : 116 dB
	- Peak : 119 dB
Coverage angle <sup>5</sup>	: 100° H x 120° V
Self generated noise SPL (A-weighted, 1m)	: 20 dB

### Electrical:

Input	- Sensitivity (100 dB <sub>SPL</sub> /1m)	: -15 dBu
	- Impedance (balanced)	: 10k Ω
	- Connector (XLR female type)	: p2=+, p3=-, p1=gnd
Link		: hardwired to input
Cross-over	- Type	: 24 dB/Oct
	- Frequency (-6 dB)	: 3k5 Hz
	- Controls	: contour filter switch and volume control
Power amplifiers <sup>4</sup>		: 150 W <sub>rms</sub> (4 ###) LF, 100 W <sub>rms</sub> (8 ###) HF
Protection	- DLC	
	- Overload	: 8 dB gain reduction
	- Thermal	: 8 dB gain reduction if T <sub>heatsink</sub> > 72° C
		mute if T <sub>heatsink</sub> > 80° C
	- DC	
Indicator LED - green		: contour filter off
	- red	: contour filter on
	- flash	: start-up / thermal and DC-protection mute
Mains	- Voltage (+5/-10 %) <sup>6</sup>	: 230 V
	- Connector type	: DO-3 male and DO-3 female link
	- Fuses (slow type)	: 1 x 1.6 A
	- Power consumption	: 16 W <sub>idle</sub> / 120 W <sub>full load</sub>

### General:

Temperature range (ambient)	: 0 - 40° C
Transducers	: 2 x 6.5" / 1 x 1.1" soft-dome tweeter
Dimensions including profile (H x W x D)	: 243 x 397 x 400 mm
Weight	: 13 kg

### Notes:

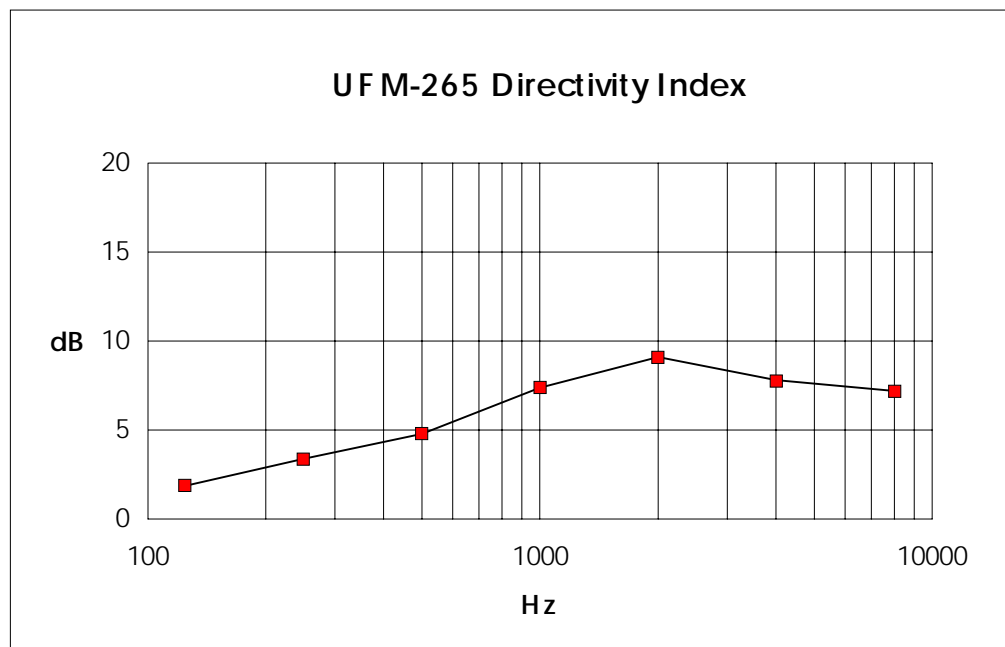
- 1 Specifications are valid for 1 unit with 'contour' filter off (green LED) and volume at max position unless stated otherwise.
- 2 Measured under anechoic 'full-space' conditions unless stated otherwise.
- 3 Low cut-off frequency 'full-space', 'contour' filter on.
- 4 Measured with gated sine waves.
- 5 -6 dB, average value 2k - 15k Hz.
- 6 Other voltages available upon request.

### Acoustical data table

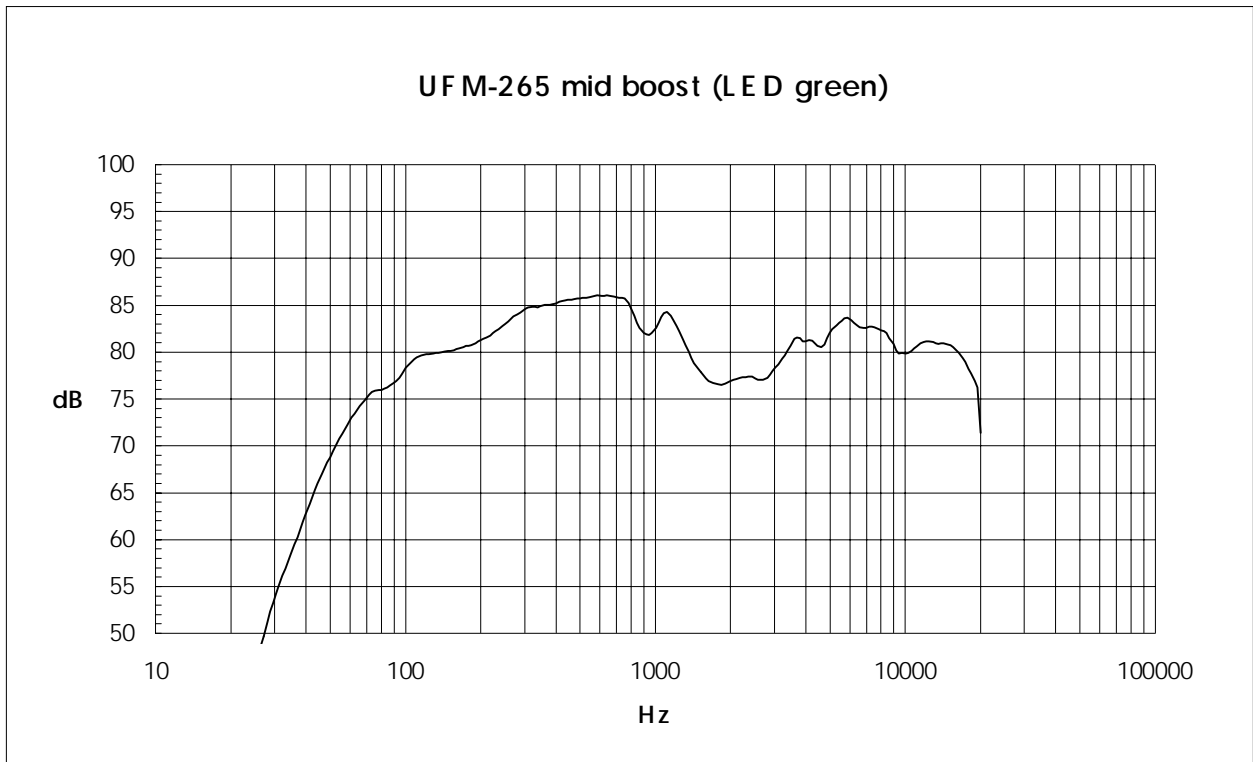
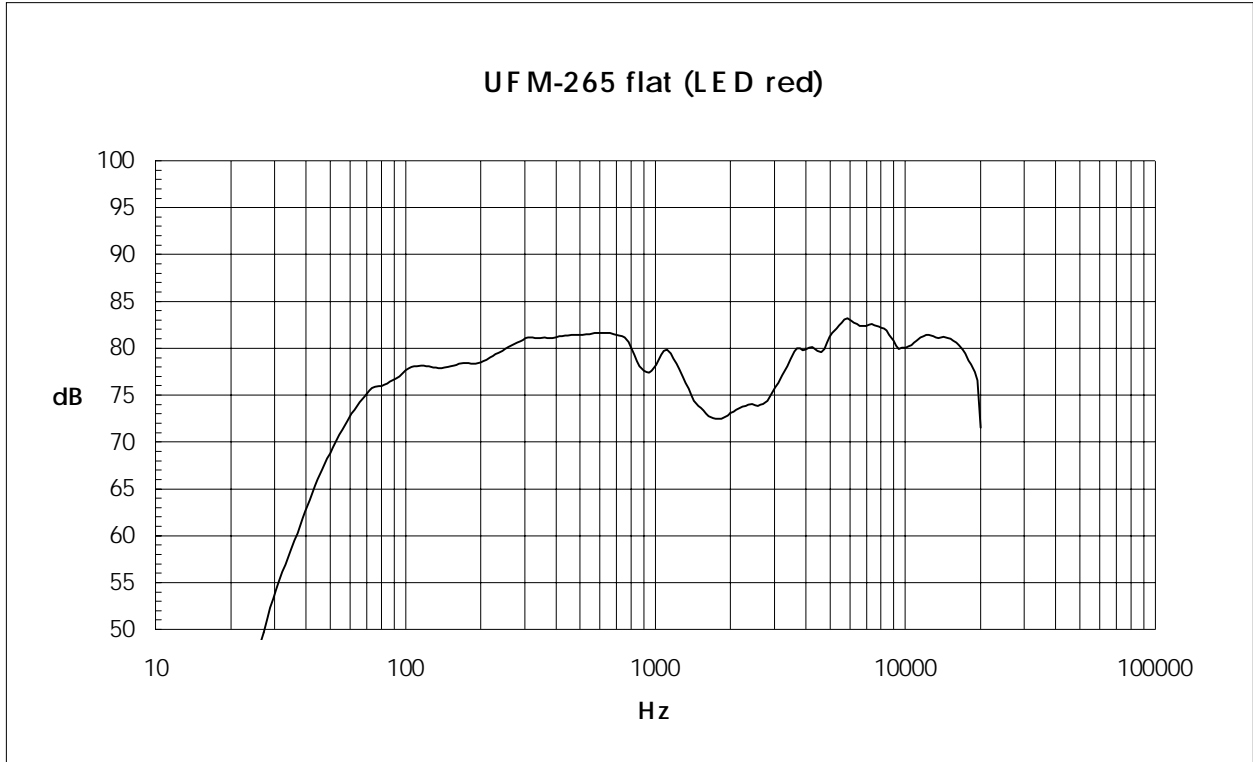
Frequency <sup>1</sup> (Hz)	DI <sup>2</sup> (dB)	Hor. coverage - 6 dB (deg)	Vert. coverage - 6 dB (deg)	Max. SPL at 1m <sup>3</sup> (dB <sub>SPL</sub> )
125	1.9			113
250	3.4	240		116
500	4.8	170	185	119
1k	7.4	85	150	118
2k	9.1	40	135	115
4k	7.8	145	120	116
8k	7.2	143	130	111

1. All frequencies octave band centered, all values measured with 'contour' filter off (green LED) and volume at max position.
2. Directivity Index calculated from horizontal and vertical polar data.
3. Peak values measured with gated sine waves under anechoic conditions, scaled to 1m ETC time zero.

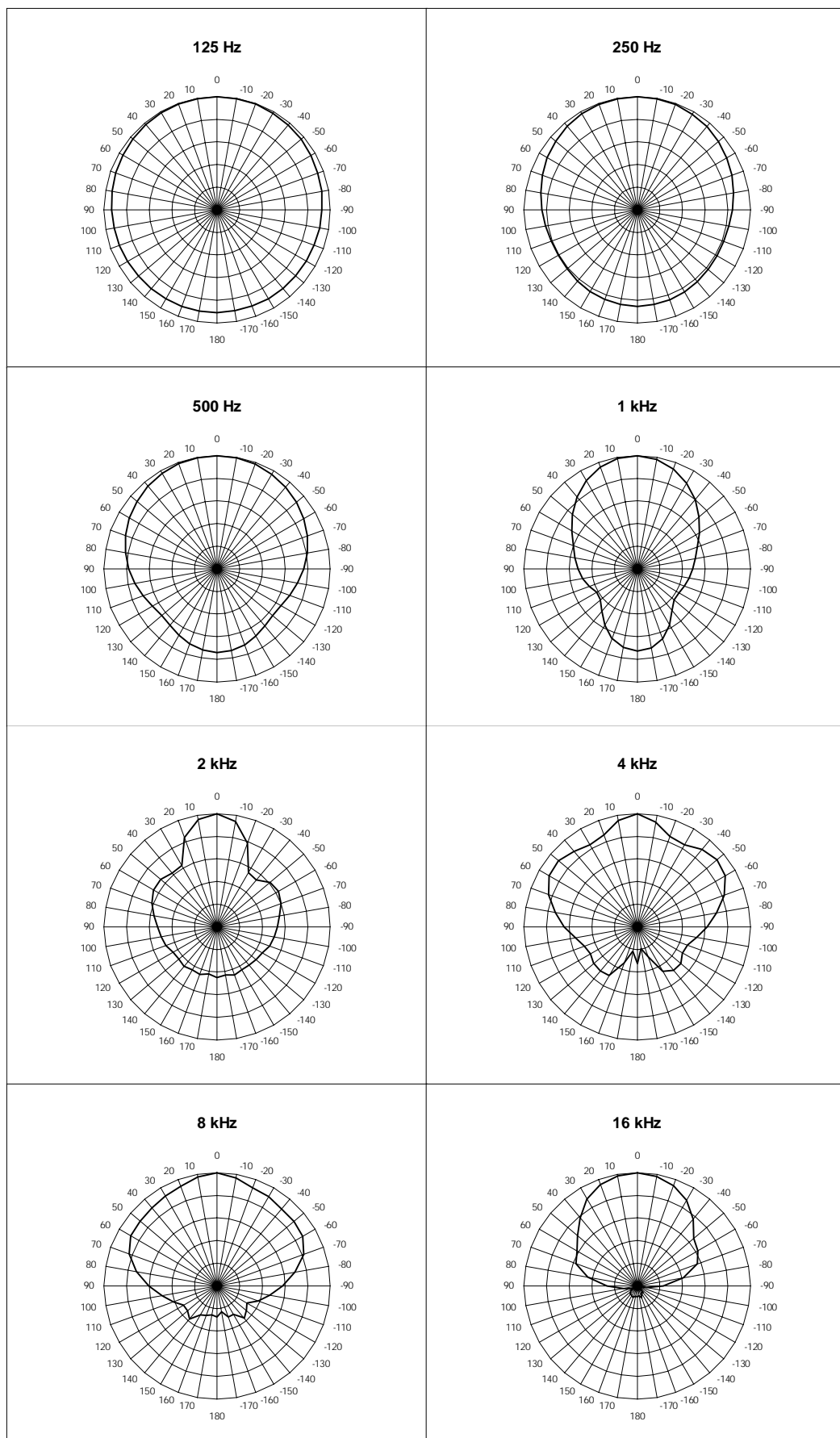
### Directivity Index



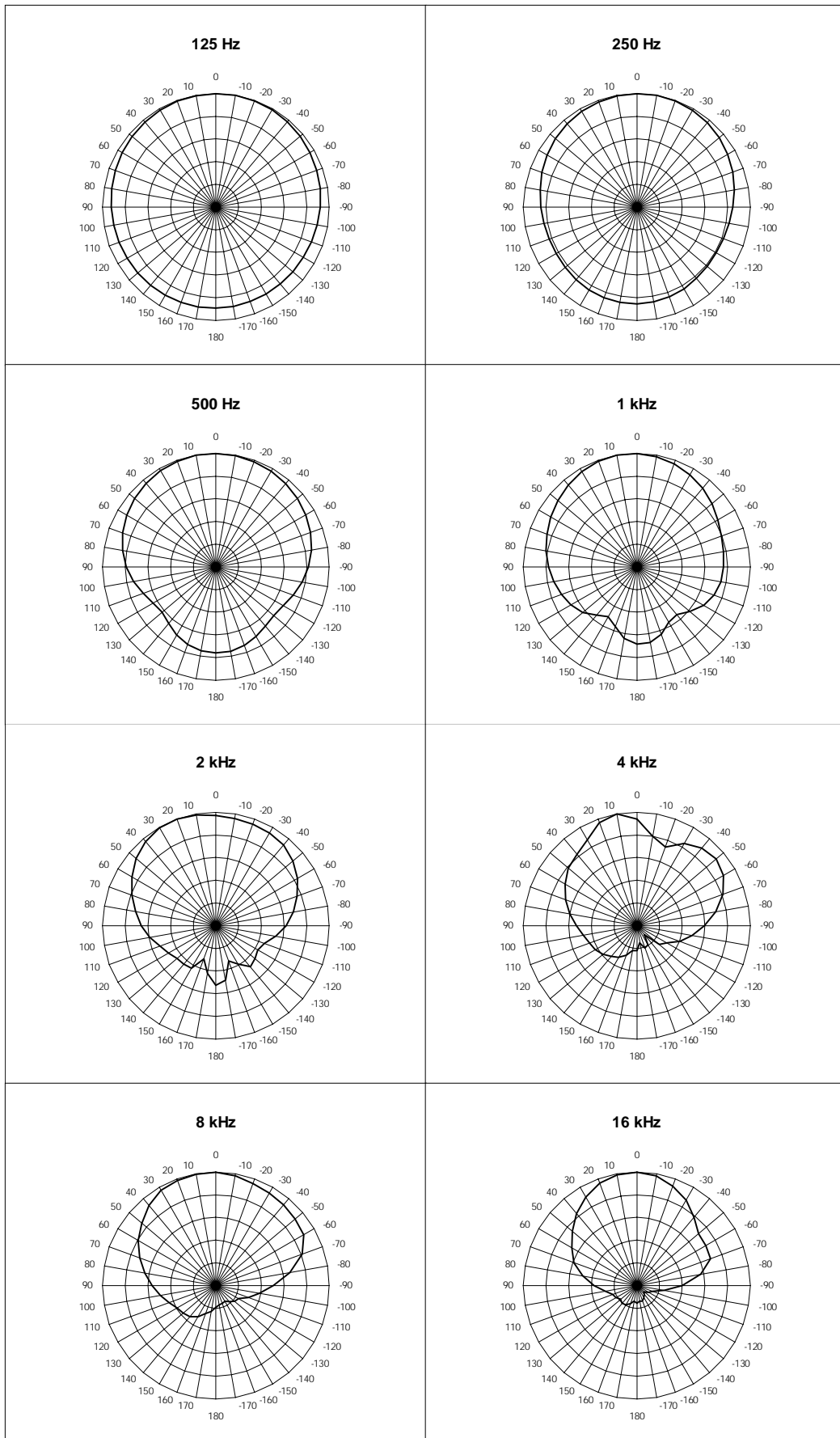
**SPL response**



**UFM-265** Full space on axis SPL, 1/3 octave averaged  
 Distance 4.0 m, input level 0.05 Vrms  
 Low end (<100 Hz) from near field measurements

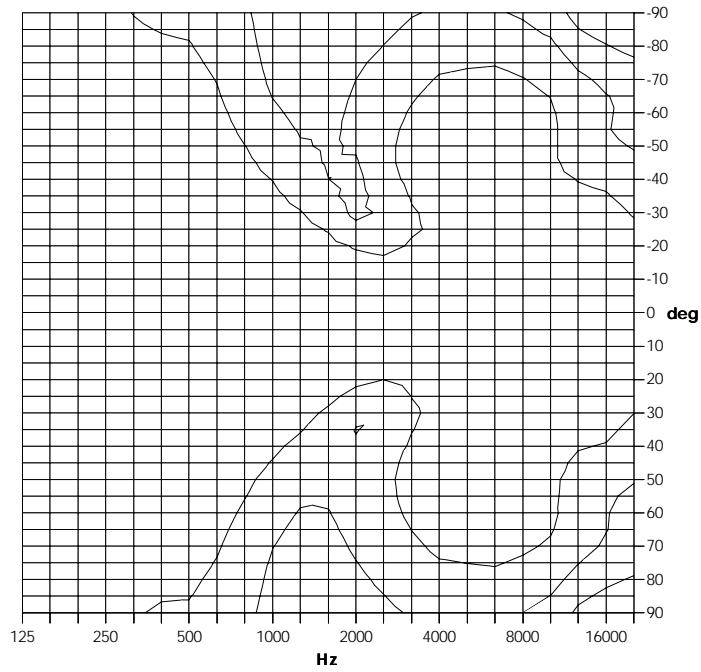


**UFM-265** Horizontal polar data 1/1 octave averaged  
Angular resolution 10 deg, scale 6 dB/div, positive angles = left side

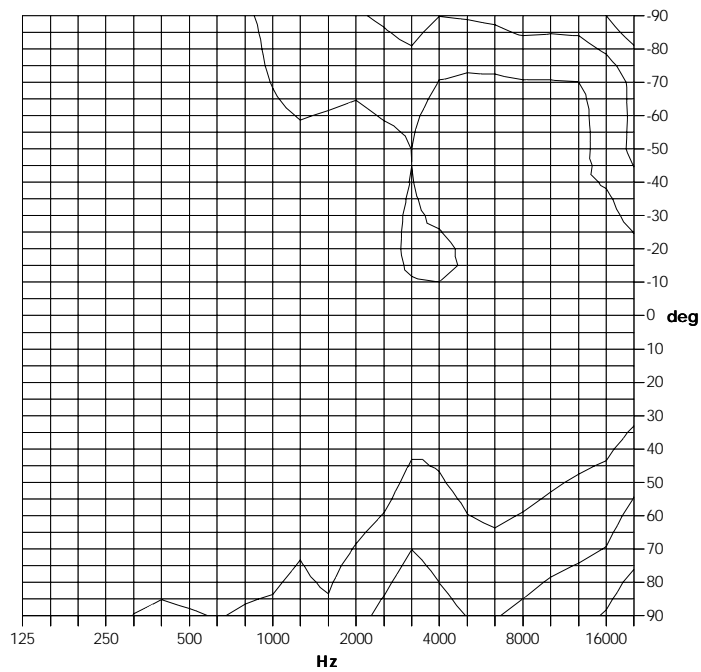


UFM-265 Vertical polar data 1/1 octave averaged  
Angular resolution 10 deg, scale 6 dB/div, positive angles = top side

**UFM-265 horizontal isobaric curves**

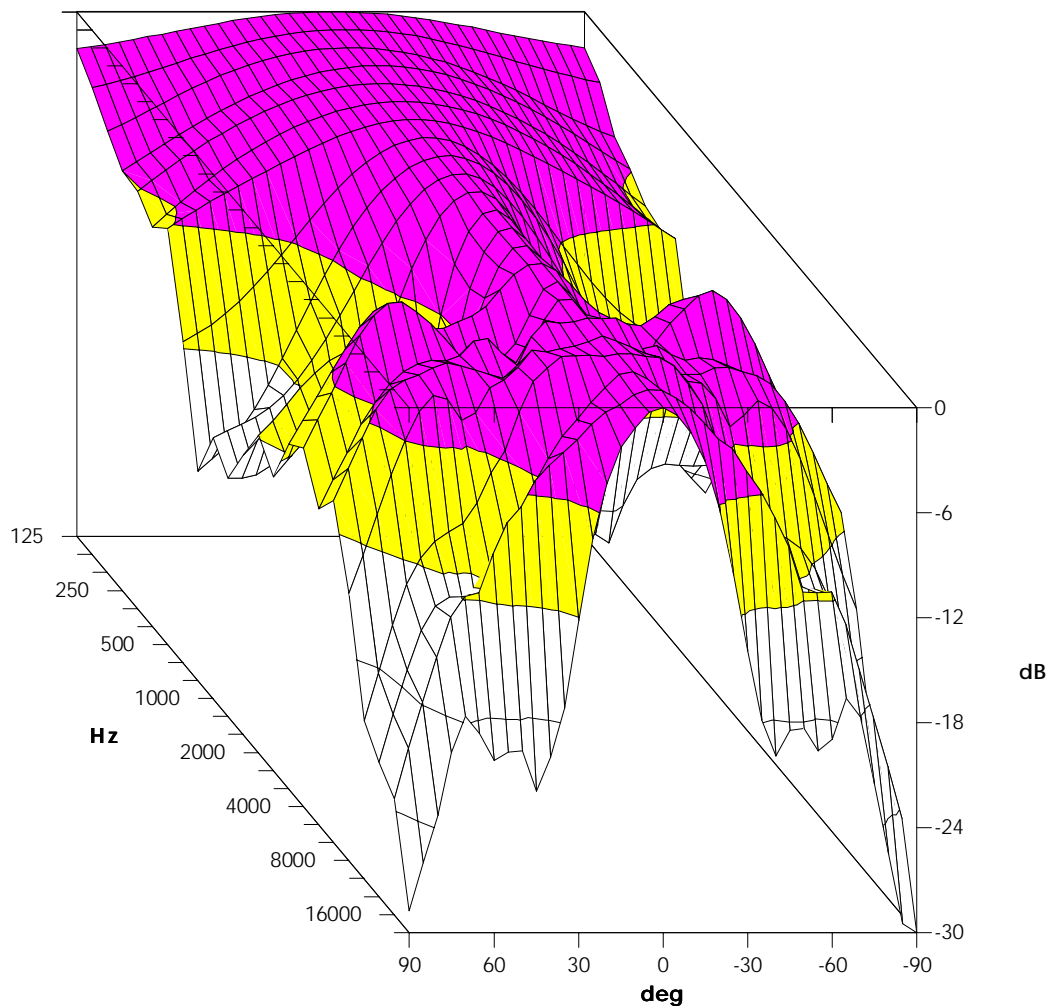


**UFM-265 vertical isobaric curves**



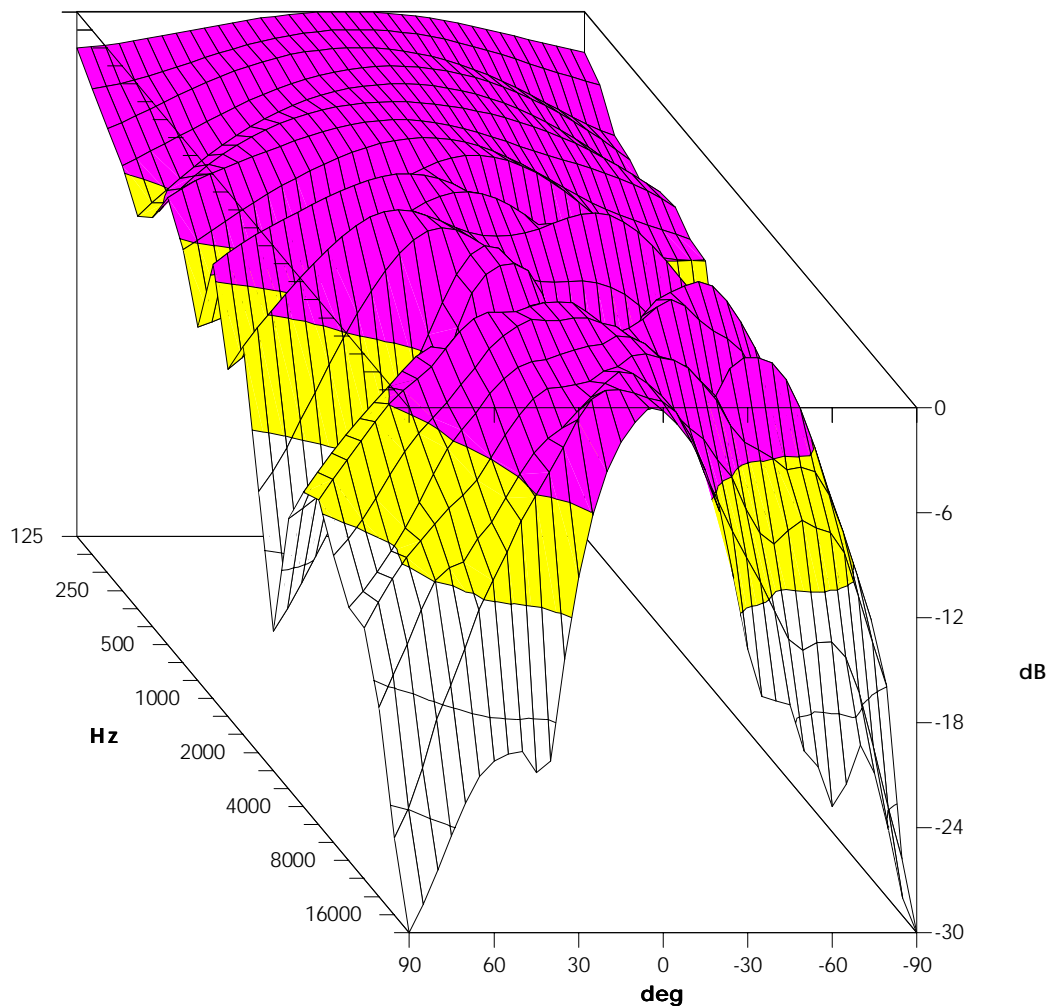
UFM-265 Isobaric curves 1/1 octave averaged -6, -12 and -18 dB

UFM-265 horizontal 3-D graph



UFM-265 Horizontal 3-D graph 1/3 octave averaged

UFM-265 vertical 3-D graph



UFM-265 Vertical 3-D graph 1/3 octave averaged