

EMES

KOBALT

2 way active



Video

Broadcast

Recording

Project Studio



www.emes.de

KOBALT - 2 way active with BI-Port technology

Applications

VIDEO
BROADCAST
RECORDING
PROJECT STUDIO

Arrangement/Configurations

STEREO
SURROUND
ADVANCED SURROUND™

Features

2 identical 70W amplifiers

- ◆ eliminates time related distortion

BI-Port™

- ◆ Intelligent Vented Port System
- ◆ AirFlow cooled Tweeter
- ◆ Exponential coupling (Tweeter/Air)
 - ◆ eliminates reflexions
 - ◆ minimizes distortion
- ◆ Controlled dispersion field pattern

ISO-Rails™

- ◆ Isolates Cabinet from Ground
- ◆ Anti slip mechanism

HDS Driver

- ◆ Polypropylene membrane
- ◆ Vented Coil System
 - ◆ Extrem low compression
 - ◆ Quick transient response
 - ◆ Perfect coil cooling

Digital "quick delivery" power supply

- ◆ cycles 2000 times faster
- ◆ hum canceling
- ◆ Tight and accurate Low End

Level control

- ◆ Sensitivity adjustable
- ◆ -40 to + 10dB

Mid control

- ◆ Voicing adjustment
- ◆ 400Hz - 2 KHz (+ 1,5... - 1,5 dB)

Diagrams/Specs

The EMES KOBALT is a new generation 2 way bi-amplified near field Monitor, specially designed to meet the best performance at a reasonable price point.

We are proud to offer most of the EMES HR line features in the KOBALTs too.

Finally we add two unique technologies to it -

The **BI-Port™** and the **ISO-Rails™**.

The **BI-Port™** was specially designed to keep the cabinet dimensions as small as possible, while supporting the High frequency section.

Therefore we integrate the 25mm Neodymium Tweeter In the Center of the **BI-Port™** (Bass Reflex System) for two reasons; To aim for an efficient Air cooling of the "little tweeter" by the Woofers Air flow, secondly and most important to generate a "velocity field (ring shape)" around the Tweeter to support it's High frequency dispersion pattern over long distance!(riding on along wave) Result - an unbelievable precise Stereo-Image.

Also the **ISO-Rails™** are features which have practical aspects as well as acoustical once!

Most available cabinets have flat sheet surfaces, such speakers have hard times to stick on the location they were placed on, especially when they are pushed hard, manually or by the moving force of the Woofer!

Not such strange things happen to the KOBALTs! The cabinet is standing on the **ISO-Rails™** - a special silicon profile - only. So there is no coupling to surface underneath nor is any "slip" behaviour going on, so the low end is always tight at any time!

As always at EMES, matched high quality drivers are chosen, because to us they are the most critical part in a quality Studio Monitor System!

The Low range (69 - 2000Hz) is reproduced by a 14cm polypropylene Membrane HDS-driver. A 25mm high efficiency Neodymium Tweeter located in the **BI-Port™** is used from 2 - 20 kHz!

We at EMES always use identical amplifiers, to have the lowest time related distortion possible! Therefore 2 identical build in 70W rms amplifiers which deliver a powerful and optimized output drive a single KOBALT Monitor. This is one of the many design criteria's to the EMES audio performance.

To adjust the monitor to your personal listening preferences, a 16 position dip-switch has been added to control listening levels and mid range behaviour!

We ship the KOBALTs as all other EMES monitors as matched pairs!



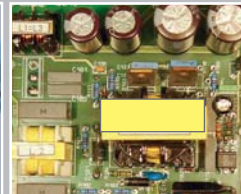
BI-Port™



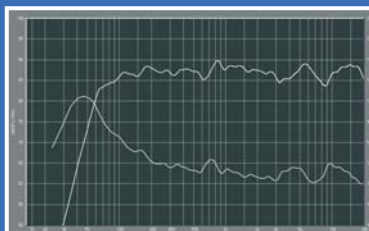
HDS-Driver



digital powersupply



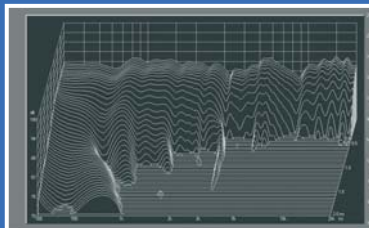
ISO-Rails™



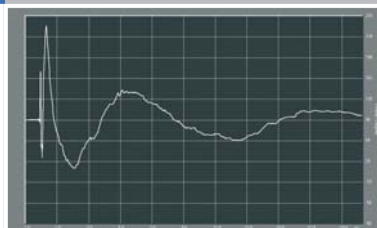
Frequency- and Phase response



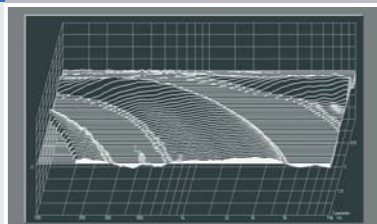
Acoustic THD (Total/H2/H3)



Waterfall



Step response



3D Impulse Response / half cycle

SYSTEM

System design	2 way bass reflex
Construction / Speaker configuration	one plus one
Lower cut off frequency	67 Hz (-3dB)
Upper cut off frequency	20 kHz (-2dB)
Frequency response (free field)	69-20.000 Hz (±3 dB)
Maximum output, sine wave (0,1-2 kHz)	106 dB
Maximum output, long term, (RMS)	103 dB
Maximum output, both speakers driven	112 dB
THD at 95dB SPL <100Hz	1,10%
THD at 95dB SPL >100Hz	0,60%
Bass-driver	1 x 14cm , polypropylen
HF-driver	25mm textile dome, Ferrofluid
Shielded Version	no
Weight	5,2 Kg
Dimensions (width/height/depth)	170 x 270 x 250 mm

ELECTRONIC

Type of input connector	XLR, female
Input impedance	10 kOhm
Input level adjustment	4 steps from 0,45 - 4,5V
Mid control	(0,4 - 2 kHz) = 4 steps (+1,5/0/-1/-1,5 dB)
Lowpass filter	40 Hz / 18dB
Highpass filter	25 kHz / 6 dB
X-over frequency	2.000 Hz (12dB/12dB)
RMS output Bass-amp	70 W
RMS output HF-amp	70 W
Distortion at maximum acoustic output	0,10%
Signal to noise ratio, at full output	106 dB
Main voltage	115 / 230 V ±20%
Type of Power supply	digital
Power consumption (full output)	120 W, 10 W stand by

Main Purpose

Listening distances	60 - 250 cm
Near field	x

EMES

distributed by:

