

# EMES

## BLACK tv HR active

### 2 way active



Mastering

Recording

Video Studio

Project Studio



[www.emes.de](http://www.emes.de)

# BLACK tv HR active

## Applications

**VIDEO  
BROADCAST  
RECORDING  
PROJECT STUDIO  
MASTERING**

## Arrangement/Configurations

**STEREO  
SURROUND  
MODUMO™**

## Features

### 2 identical 100W amplifier

- ◆ Eliminates time related distortion

### Digital "quick delivery" power supply

- ◆ Cycles 2000 times faster
  - ◆ Hum canceling
  - ◆ Tight and accurate Low End

### COAX Driver

- ◆ 17cm Polypropylen membrane
- ◆ 25mm Textile Neodymium dome
  - ◆ Superior transient response
  - ◆ ZERO Phase difference
  - ◆ Magnetically shielded (tv)

### Level control

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

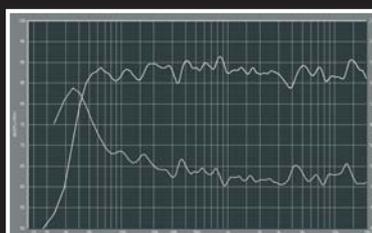
### Low-end control

- ◆ Corrects Low end from -6 to +4 dB
  - ◆ Room compensation
  - ◆ Corner/Wall placement Eq

### High-end control

- ◆ Corrects High end from -4 to +4 dB
  - ◆ Room compensation
  - ◆ Adjustable (Listening taste)

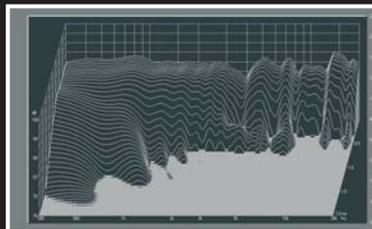
## Diagrams/Specs



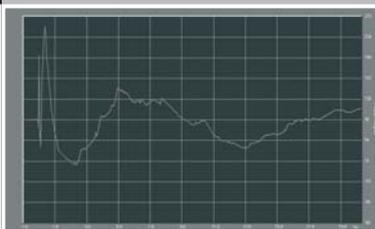
Frequency- and Phase response



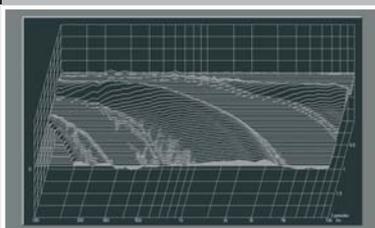
Acoustic THD (Total/H2/H3)



Waterfall



Step response



3D Impulse Response / half cycle

The Black tv HR active is a very versatile Monitor! For more than 10 years, this model has been produced and is actually available in it's 4th generation! It started it's success with the introduction of Computer based digital Workstations. The demand was clear; Screen save design (Shielded Magnetic field), wide audio range and being able to supply an excellent Imaging at very close listening distances!

Due to the chosen coaxial principal (2 way driver were both coils are centred at all 3 dimensions) you get a physically ideal single point source Monitor. The stereo image is a very detailed "straight" line between the L/R Speakers, and is perfectly lined up in a Surround configuration! Another benefit of the single point source reproduction is, no matter how close or far you are the BLACKS don't change it's tonal characteristics!

These are some of the reasons why so many Pro's choose this type Monitor!

The Low end (42-1500Hz) is reproduced by a 17cm Polypropylene membrane driver with a strong magnesium basket. The highs are emanated by a 25mm textile dome Neodymium tweeter, which is positioned inside the Coil of the Woofer while the woofers membrane acts as a wave guide (horn)! Physically the BLACKS are still quite compact (210x380x250mm) and easy to transport (7,6 Kg) !

The cabinet is made from a specially coated 19mm MDF fabric, this material is very dense, stable and nearly non resonant! We take great care about details, details which have more than just a single purpose to fulfil, example: The silicon edges every EMES-Monitor has do protect the edge - which is obvious, but it also prevents the cabinet from slipping and it isolates the cabinet from the underground! This is one of the many design criteria's EMES developed to reach a perfect audio performance!

The Bi-amped active electronic generate up to 2 x 100 Watt rms power to each driver . We at EMES always use identical amplifiers, to have the lowest time related distortion possible. Different designs or just different wattage cause these time related distortion. Another unique component is our own developed digital "quick delivery" power supply, which works 2000 times faster as a regular one does! This gives a lot have constant energy load to the Amplifier. So a double hit on Bass drum is still a double hit Bassdrum on the reproduction as well. It pushes all the way trough!

To adjust the monitors to the room acoustics and your personal listening taste, we implemented dip-switches for input level, bass- and high frequency adjustments. All of them are fixed valued Dip-Switches! So every Monitor can be set identical within minimized tolerances important for Stereo-, 5.1 and Advanced Surround™ Systems.

We ship all our monitors as matched pairs with less than ±0,5 dB difference!

Due to our MODUMO™ concept the performance of the BLACKS can be easily expanded!



MODUMO and Advanced Surround Trademarks owned by EMES

### SYSTEM

System design	2 way bass reflex
Construction / Speaker configuration	coaxial
Lower cut off frequency	40 Hz (-3dB)
Upper cut off frequency	21 kHz (-3dB)
Frequency response (free field)	42-20.000 Hz (±2,5 dB)
Maximum output, sine wave (0,1-2 kHz)	109 dB
Maximum output, long term, (RMS)	106 dB
Maximum output, both speakers driven	115 dB
THD at 95dB SPL <100Hz	0,90%
THD at 95dB SPL >100Hz	0,40%
Bass-driver	1 x 17cm , polypropylen
HF-driver	25mm textile dome, neodyme
Shielded Version	yes
Weight	7,8 Kg
Dimensions (width/height/depth)	210 x 380 x 250 mm

### ELECTRONIC

Type of input connector	XLR, female
Input impedance	10 kOhm
Input level adjustment	16 steps from 0,45 - 4,5V
Lowpass filter	30 Hz / 18dB
Highpass filter	25 kHz / 6 dB
X-over frequency	1.500 Hz (18dB/12dB)
HF-driver level control	16 steps, -4dB - +4 dB
Low frequency control	16 steps, -6dB - +8 dB
RMS output Bass-amp	120 W
RMS output HF-amp	120 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)	150 W, 10 W stand by

### Main Purpose

Listening distances	40 - 300 cm
Near field	x
Mid field	x with AMBER HR

# EMES

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