EMES

VIOLETT HR active

2 way active

Mastering

Editing

Recording

Broadcast

Video Studio

Project Studio

www.emes.de

VIOLETT HR active

Applications

VIDEO
BROADCAST
RECORDING
PROJECT STUDIO
MASTERING

Arrangement/Configurations

STEREO
SURROUND
ADVANCED SURROUND™
MODUMO™

Features

2 identical 120W amplifier
- Eliminates time related distortion

Digital "quick delivery" power supply
- Cycles 2000 times faster
  - Hum canceling
  - Tight and accurate Low End

CARBON Woofer
- 18cm Carbon/Paper membrane
  - Resonant free Cone

SILK DOME NEODYMIUM Tweeter
- 28mm silk dome Neodymium
  - Superior transient response

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)

The VIOLETT HR is our recently developed high-resolution monitor.

With its amazing sonic capabilities and the compact size, the VIOLETT HR active is ideal for the recording and mastering industry as a personal reference monitor. The VIOLETT HR is also suitable for Surround or any other multichannel Set up incl. our ADVANCED SURROUND System!

All high-resolution models use the latest high tech materials available, like carbon or fiberglass! These Fabrics are used in the most critical part of a true sounding monitor system, the moving mechanism!

The Carbon/Paper composite membrane of the 18cm Woofer is produced in a unique way, it's molded and pressed into it's final shape - dried by air - this gives the material it's characteristic Style. The benefit is an extremely light, stable and non-resonant membrane with a nicely controlled dispersion pattern (see Waterfall).

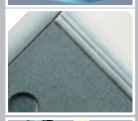
Please note! The moving Part of a speaker translates the electrical signal into a mechanical movement which directly interacts with the Air in front of it! Alternately, you can call it EMtoA-Converter! So any error introduced at this stage means a great loss of information!

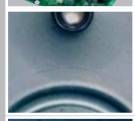
The 18cm Carbon driver and the state of the art 28mm neodymium super light silk dome tweeter combined with our new molded waveguide baffel technology allows us to divide the High and Low section at 1200 Hz. This is an important EMES design feature!

Why this low?!

Typically any Konus driver starts to be very uncontrolled between 1000 to 3000 Hz - depending on its diameter and design, so to compensate for this physical characteristic, we have chosen a tweeter that can go down to 1200 Hz.

These unique features and the wave guide design put the VIOLETT HR active, the OWL-System and BLUE HR active into the top Level of today's monitoring technology!





Only selected, high quality components are used to build our HR monitor's! All controls, x-over, amplifiers (2x 120W) and the new "quick delivery" power supply are assembled on a service friendly and intelligent pc-board.

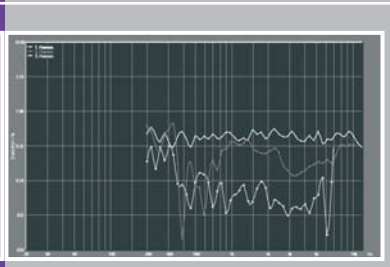
To adjust our monitors to your personal taste and room acoustics, we have implemented controls for the low frequency (± 6dB) and for the high frequency (± 4dB) section, as well as controls for input sensitivity (balanced, unbalanced ± 15dB).

All EMES monitors use a PTZ-protection circuit to guard the hf-drivers from over heating at high listening levels.

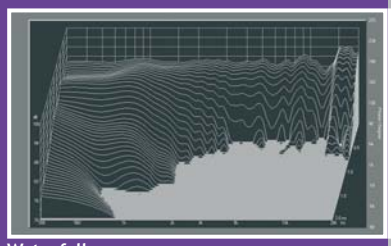
We ship all our monitors as matched pairs with less than ±0,5 dB difference. An individual Measurement protocol comes with every HR set!

Diagrams/Specs

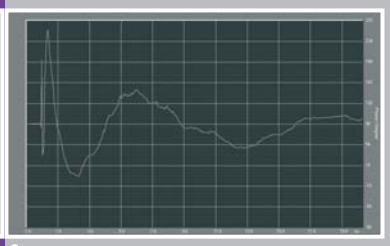
Frequency- and Phase response



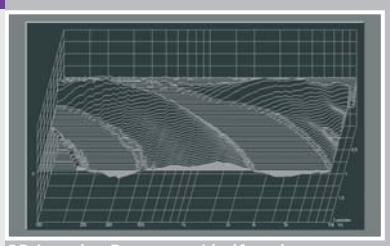
Acoustic THD (Total/H2/H3)



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	46 Hz (-3dB)
Upper cut off frequency	21 kHz (-3dB)
Frequency response (free field)	48-20.000 Hz (±2,0 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	0,80%
THD at 95dB SPL >100Hz	0,35%
Bass-driver	1 x 18cm , carbon
HF-driver	28mm silk dome, Ferrofluid
Shielded Version	no
Weight	9,4 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	35 Hz / 18dB
Highpass filter	25 kHz / 6 dB
X-over frequency	1.300 Hz (12dB/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)	160 W, 10 W stand by

Main Purpose

Listening distances	80 - 300 cm
Near field	x
Mid field	x with AMBER HR

EMES

distributed by: