

KH 80 DSP A W - Active DSP Studio Monitor

Technical Data

Acoustics

-6 dB free field frequency response	53 Hz ... 22 kHz, \pm 6 dB
-3 dB free field frequency response	57 Hz ... 21 kHz, \pm 3 dB
Pass band free field frequency response	59 Hz ... 20 kHz, \pm 2 dB
Self-generated noise (with input gain set to 100 dB for 0 dBu)	< 20 dB(A) at 10 cm
Sine wave output with a THD < 0.5 % at 1 m	90 dB SPL (>200 Hz)
Max. SPL in full space / calc. in half space at 3% THD at 1m	102.8 / 108.8 dB SPL (averaged between 100 Hz and 6 kHz)
Bass capability: Max. SPL in half space at 3% THD at 1m	92.1 dB SPL (averaged between 50 Hz and 100 Hz)
Max. short term SPL with IEC-weighted noise (IEC 60268-5) at 1 m, in typical listening conditions	104 dB(C) SPL
Max. short term SPL with music material at 2.3 m, in typical listening conditions (pair)	93 dB(C) SPL (full range) 100 dB(C) SPL (with subwoofer)
Max. long term SPL with pink noise at 2.3 m, in typical listening conditions (single/pair)	88 / 93 dB(C) SPL (full range) 91 / 96 dB(C) SPL (with subwoofer)

Electronics

Bass amplifier output power (THD+N: 10%, 0.1%)	120 W, 90 W
Treble amplifier output power (THD+N: 10%, 0.1%)	70 W, 50 W
Controller design	Digital, active
Crossover Frequency	1.8 kHz
Crossover Slope	48 dB/oct, 8th order with phase correction
Equalization - Low Mid	0, -1.5, -3, -4.5 dB
Equalization - via Neumann.Control software	8 x full parametric IIR + low / high shelf global balance
FIR phase correction	Linear phase (170 Hz ... 16kHz, +/- 45°), Analog emulation
Latency A-D-A - linear phase, analog emulation mode	2 ms, 0.65 ms
Protection circuitry	Independent soft clip, peak and thermo limiters for woofer and tweeter. Woofer excursion limiter.
Infrasonic filter - frequency; slope	61 Hz; 12 dB/oct.
Input	XLR / 6.3 mm (W) Jack, analog electronically balanced
Impedance	14k Ohms
Input gain control (sensitivity)	0 dB to -15 dB
Output level control	94, 100, 108, 114 dB SPL
CMRR	>56 dB @ 15kHz
Max. input level	+24 dBu for 94 dB SPL setting
Digital converter: resolution, design	24-bit DAC, $\Delta\Sigma$
Digital internal sampling rate	48 kHz
Dynamic range D-A; woofer, tweeter	114 dB, 117 dB
User adjustable delay range	0 ... 70 ms
Audio-video/lip sync max. frames	1.75 (40 ms frames) or 2.1 (33 ms frames)
Time-of-flight max. distance	24 m (79 ft)
Resolution - time/distance	0.1 ms / 3.44 cm (1 3/8")
Displays and Indicators:	
Normal operation	Neumann logo "White"
Identification	Neumann logo "Rosé"
Limit / clip / errors	Neumann logo "Red"
Mains Power Supply, voltage; frequency	100-240V; 50/60 Hz
Power consumption (230 V / 100 V):	
Standby	<330 / <50 mW
Idle	9 / 8 W
Full output	180 W
Standby	Disabled, 90 mins (default), or user defined in software

Mechanics

Cabinet surface finish, color	Painted composite polycarbonate material, White (RAL 9016)
Operating conditions	+10° C to +40° C (+50° F to +104° F), <75% RH, non-condensing
Transport/storage conditions	-25° C to +60° C (-13° F to 140° F), <90% RH, non-condensing
Woofers	100 mm (4") with integrated black metal grille
Tweeter	25 mm (1") with integrated black metal grille
Mounting points	2 x M6 threaded inserts with 70 mm spacing on back panel, depth from outside of cabinet 16 mm (5/8").
Product dimensions (height x width x depth), mm (Inches)	233 x 154 x 194 mm (9 1/8" x 6" x 7 5/8")
Net volume, internal / external	3.7 liters / 7.0 liters
Product weight	3.4 kg (7 lbs 8 oz)
Packed dimensions (height x width x depth), mm (Inches)	345 x 277 x 243 mm (13 5/8" x 10 7/8" x 9 5/8")
Packed weight and cube	4.1 kg (9 lbs 1 oz), 0.023 m ³
Delivery includes	1x KH 80 DSP A 1x Mains cable (European, UK, US, or CCC and KC) 4x Self-adhesive feet 1x Getting Started Quickly guide 1x Safety booklet

Accessories

Mounting on a floor stand (e.g. K&M 26750, 26735)	KH 80 DSP + LH 61 + LH 28 + stand
Mounting on a design monitor stand (e.g. K&M 26795)	KH 80 DSP + LH 61 + LH 48 + stand
Mounting on a lighting stand	KH 80 DSP + LH 61 + LH 29 + stand
Mounting on a microphone stand	KH 80 DSP + LH 61 + microphone stand
Mounting on a subwoofer	KH 80 DSP + LH 61 + LH 28 + pole + KH 870 KH 80 DSP + LH 61 + LH 37 + KH 870
Mounting on a surface (desktop or floor)	KH 80 DSP + LH 61 1 + surface KH 80 DSP + LH 61 + LH 43 + surface KH 80 DSP + LH 61 + LH 47 + LH 43 + surface KH 80 DSP + LH 61 + LH 47 + LH 46 + surface KH 80 DSP + LH 65 + surface
Mounting on a OmniMount or VESA mount	KH 80 DSP + LH 64 + OmniMount KH 80 DSP + LH 64 + VESA mount
Mounting on a wall	KH 80 DSP + LH 32 + wall KH 80 DSP + LH 61 + LH 47 + LH 45 + wall
Mounting off a ceiling	KH 80 DSP + LH 61 + ceiling KH 80 DSP + LH 61 + LH 43 + ceiling KH 80 DSP + LH 61 + LH 47 + LH 43 + ceiling KH 80 DSP + LH 61 + LH 47 + LH 46 + ceiling
Mounting off a lighting or truss bar	KH 80 DSP + LH 61 + LH 29 + G-clamp + bar
Other accessories	PAK 1