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Audio range Summer 2016



nu Force



Hear more. Feel more.

NuForce is already known for its clean design and superior sound. The Optoma NuForce audio range comprises of three main categories:

Mobile - created for premium sound on the move.

Home stereo - advanced technology and design for the highest sound reproduction capability.

Home cinema - complements Optoma's award winning home cinema projectors.

www.optoma.com



Mobile

Optoma's mobile products deliver crystal clear HiFi sound for life on the move. The range includes a choice of superior in-ear headphones and a super small mobile USB DAC.





High resolution in-ear headphones

The High Resolution certified HEM series set a new standard for accuracy, speed and comfort. Designed for professionals, the HEM8 in-ear monitors deliver spectacular detail and a strong bass. Each earpiece has four individual drivers.

Number of driver(s)

8

Driver type High resolution Knowels™ balanced armature

Frequency range 10 - 40.000Hz

-

High resolution in-ear headphones

The High Resolution certified HEM series set a new standard for accuracy, speed and comfort. The HEM6 are perfectly balanced for professional use on stage as well as music on the go. Each earpiece has three individual drivers.

HEM6

HEM4



High resolution in-ear headphones

The High Resolution certified HEM series set a new standard for accuracy, speed and comfort. Designed for professionals and audio enthusiasts, the HEM4 reflects sound better than most in its class. Each earpiece has two individual drivers.

Number of driver(s)	N 2
Driver type High resolution Knowels™ balanced armature	E H
Frequency range	F 2

Number of driver(s)

Driver type High resolution Knowels™ balanced armature

Frequency range 18 - 40,000Hz



High resolution in-ear headphones

The High Resolution certified HEM series set a new standard for accuracy, speed and comfort. The HEM2 are ideal for home musicians and audio enthusiasts. Each earpiece contains a single full range driver.

Number of driver(s) 2

Driver type High resolution Knowels™ balanced armature

Frequency range 20 - 40,000Hz





Wireless Bluetooth® in-ear headphones

The BE6i takes the same stylish design as the BE6 but offers an incredible battery life of up to 8 hours. They are also IPX5 certified for greater protection from rain and sweat. The BE6i are the only Bluetooth[®] in-ear headphones to be fully crafted from aluminium, which provides crystal-clear sound and elegant design in a lightweight form-factor, making them durable and attractive for all lifestyles.

Bluetooth Bluetooth 4.1, aptX, supported AAC

Impedance 20 Ohm

Battery life up to 8 hours



















Hi-Res

NE800M



Superior performance in-ear headphones

The NE800M introduce music lovers and gamers to the next level of sound. These in-ear headphones include a sound nozzle machined from solid brass to minimise vibration and optimise the sound. Coupled with an ultra-lightweight and durable carbon fibre chassis, the NE800M's exceptional acoustic design brings out all of the detail in your music.

Impedance		
16 Ohm		
Maximum SPL		

120dB

Sensitivity 118dB +/-3dB

High performance in-ear headphones

Designed for people that care about the sound; these in-ear headphones deliver exceptional acoustic design, superior quality components and an ultra-lightweight and durable chassis. They offer a substantial upgrade from those that come with your smartphone or music player and set the standard for premium portable sound.

NE750M

Impedance 16 Ohm Maximum SPL

120dB

Sensitivity 113dB +/-3dB uDAC3



Super small DSD DAC and headphone amp

The uDAC5 is Optoma's first DSD high resolution DAC. It will play any audio file at any resolution. It combines a robust headphone amplifier which significantly transforms any computer's sound output. Ideal for enthusiasts and music lovers who wish to listen to the highest quality audio content. Available with drivers for PC and MAC.

Connections

Input: USB. Output: RCA L+R/digital coax, 3.5mm with volume control

Maximum SPL 120dB		
Resolution		
Up to 384kHz PCM and DSD256		



Super small mobile DAC and headphone amp

The uDAC3 digital to analogue converter (DAC) and combined headphone amplifier significantly upgrades any computer's sound output. Ideal for music lovers and gamers, this tiny device connects to the computer's USB port and improves, amplifies and converts digital audio files from a PC or Mac.

Connections Input: USB. Output: RCA L+R/digital coax, 3.5mm with volume control

Power supply Via USB connection

Resolution 96kHz / 24 bit



Home stereo

Optoma's home stereo products offer the highest sound reproduction capability for the most discerning listener. The range includes a digital to analogue converter (DAC), power amps, integrated amps, a headphone amp and a Bluetooth receiver.

Home stereo



DDA120 + BTR1



Powerful integrated digital amp with Bluetooth receiver

The DDA120 is a powerful yet compact integrated digital amp and is supplied with the Bluetooth receiver dongle. It is an ideal entertainment hub that can be connected to both digital and analogue sources from record players, digital satellite boxes, DVD players and gaming consoles to the most advanced digital devices.

Connections Input: USB, RCA L+R, 2x optical, Bluetooth, digital coax

Output and control Optical, speakers, IR control

Power 2x 50W (8 Ohm)



DAC80

Digital to analogue converter and pre-amp

The 192/24 capable DAC80 simply extracts every last nuance and detail from your digital music collection. Destined to become the cornerstone of your high-end audio system with three different digital connectivity options and the capability to connect four devices concurrently, the DAC80 is an audiophile's digital music hub.

Connections

Input: USB, optical, 2x digital coax. Output: RCA

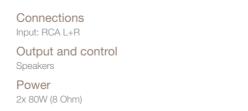
Power supply IEC mains

Resolution 192kHz / 24 bit STA120



High end stereo Class-D amp

The STA120 is a high end Class-D power amp housed in a stylish, compact enclosure. It renders all of your recordings with deep bass, crystal clear highs, and a warm, life-like midrange - all in perfect balance with high resolution and effortless, fatigue-free sound.





HA200



High performance headphone amp

The HA200 high performance headphone amp is capable of driving any set of headphones with more detail and greater scale. The HA200 uses a purist Class-A design in a constant current configuration and offers true single ended output performance. For even greater performance the HA200 provides balanced mode operation with increased accuracy.

Connections

Input: RCA L+R, XLR

Output and control 6.3mm, XLR

Power supply

IEC mains

Home stereo



WDC200



High resolution wireless DAC

The WDC200 wireless DAC is all about getting the best possible sound quality from any wireless digital device. Compatible with Apple AirPlay® and Android devices, it provides a simple way to stream your favourite music from your home network or mobile device to your sound system. For ultimate sound quality, high resolution file formats are supported for Android users.

Connections

Input: wireless 801.11 b/g/n, optical. Output: RCA L+R

Power supply External

Resolution 96kHz / 24 bit wireless, 192kHz / 24 bit via optical

STA200

High performance amp

Engineered for audio purists, this two channel power amp provides reference audio quality and is neatly enclosed in a striking metal case. Complimenting any contemporary living space the sleek design and compact dimensions are equally at home displayed as a centre piece or can be discreetly hidden.

Connections Input: RCA L+R Output and control Speakers Power

2x 80W (8 Ohm)



BTR100



Bluetooth receiver

Free the music from your smartphone, tablet or computer. Using the latest aptX and AAC technology, the BTR100 is an advanced Bluetooth hub for all mobile devices. Easy to synchronize and connect, you can wirelessly stream CD quality digital audio, via Bluetooth, directly to your home stereo system.

Bluetooth

aptX supported by AAC

Power supply External

Output 3.5mm, optical





Home cinema

Optoma's home cinema products are engineered for audio purists with astounding accuracy for superior sound. The range includes a digital AV preamp and two high power multi-channel amps.

Home cinema



AVP18



Digital AV preamp

The AVP18 is a digital AV preamp for audio enthusiasts with an optional Bluetooth receiver dongle, BTR1. This preamp focuses exclusively on sound quality rather than of superior sound. Developed for audio enthusiasts, the MCA18 will render your the latest gimmicky features. Accepting only digital inputs for the purest audio quality and utilising the same technology found in our high-end DAC, this AV processor was for integrators and installers. built from the ground up for superior surround sound and audio performance.

Connections

Input: 4x HDMI 1.4, 2x optical, 2x digital coax, Bluetooth

Surround DD, DD EX, DD+, DD Tru HD, dts, dts ES, DTS-HD*

Туре

7.1



MCA18

High end multi-channel amp

The MCA18 multi-channel amp offers superb power along with eight channels music collection and movie soundtracks with astounding accuracy. A perfect tool

Connections

Input: 8x RCA

Output and control

8x speakers, trigger

Power

8x 55W (8 Ohm)

MCA20



High power multi-channel amp

The MCA20 multi-channel amp offers superb power along with eight channels of superior sound. Developed for audio enthusiasts, the MCA20 will render your music collection and movie soundtracks with astounding accuracy. A perfect tool for integrators and installers.

Connections

Input: 8x RCA

Output and control 8x speakers, trigger

Power 8x 110W (8 Ohm)



	In-ear headphones		
Model name	HEM8	HEM6	HEM4
	65	6	6
Product category	Mobile	Mobile	Mobile
Product type	In-ear headphones	Wireless in-ear headphones	In-ear headphones
Connector type	3.5mm	3.5mm	3.5mm
Cable length (m)	1.38 (OFC), 1.38 (Mic)	1.38 (OFC), 1.38 (Mic)	1.38 (OFC), 1.38 (Mic)
Driver	4 Balanced Armatures	3 Balanced Armatures	2 Balanced Armatures
Impedance (Ohm)	32	37	38
Frequency response	10 - 40KHZ	18 - 40KHZ	18 - 40KHZ
Sensitivity (dB)	124dB +/-3dB	113dB +/-3dB	113dB +/-3dB
Weight (kg)	0.0164 (16.4g)	0.0158 (15.8g)	0.0152 (15.2g)
Standard accessories	2x 1.38m detachable cables, 3.5mm - 6.3mm gold-plated adapter, 5x pairs soft silicone ear tips (XS, S, M, L, XL), 2x pairs Comply™ memory foam ear tips (M, L), Brush / cleaning tool, Lapel clip, Waterproof display case, Carrying case	2x 1.38m detachable cables, 3.5mm - 6.3mm gold-plated adapter, 5x pairs soft silicone ear tips (XS, S, M, L, XL), 2x pairs Comply™ memory foam ear tips (M, L), Brush / cleaning tool, Lapel clip, Waterproof display case, Carrying case	2x 1.38m detachable cables, 3.5mm - 6.3mm gold-plated adapter, 5x pairs soft silicone ear tips (XS, S, M, L, XL), 2x pairs Comply™ memory foam ear tips (M, L), Brush / cleaning tool, Lapel clip, Waterproof display case, Carrying case
Colour	Black	Black	Blue
Suggested products	uDAC5, HA200	uDAC5, HA200	uDAC5, HA200

In-ear headphones

HEM2	BE6i	NE800M	NE750M
6	7		
Mobile	Mobile	Mobile	Mobile
In-ear headphones	Wireless in-ear headphones	In-ear headphones	In-ear headphones
3.5mm	Bluetooth	3.5mm (4-pole stereo)	3.5mm (4-pole stereo)
1.38 (OFC), 1.38 (Mic)	0.561	1.37	1.37
1 Balanced Armature	10mm (patented)	Dynamic / 8.6mm	Dynamic / 8.6mm
26	20	16	16
20 - 40KHZ	20Hz - 20kHz	10Hz - 40kHz	20Hz - 20kHz
110dB +/-3dB	95 +/-3 at 1KHz	113 +/-3	113 +/-3
0.0134 (13.4g)	0.016	0.018	0.014
2x 1.38m detachable cables, 3.5mm - 6.3mm gold-plated adapter, 5x pairs soft silicone ear tips (XS, S, M, L, XL), 2x pairs Comply™ memory foam ear tips (M, L), Brush / cleaning tool, Lapel clip, Waterproof display case, Carrying case	4 x pairs proprietary NuForce silicone ear tips (XS, S, M, L), 2 x pairs Comply foam ear tips (M, L), 1 x pair ear wings, 1 x USB charging cable (USB A-USB micro), 1 x carry case 1 x cable management clip, Basic user's guide, Safety booklet	2 pairs Comply earbuds (M, L), 3 pairs silicone earbuds (S, M, L), carry case	3 pairs silicone earbuds (S, M, L), carry case
Red	Gold or Grey	Black / Gold	Black / Red
uDAC5, HA200	-	uDAC5, uDAC3, HA200	uDAC5, uDAC3, HA200

	DACs			DACs	AV
Model name	uDAC5	uDAC3	DAC80	WDC200 Model nar	
		0	===_0	30 O	
Product category	Mobile	Mobile	Home stereo	Home stereo Product catego	gory Hor
Product type	DSD portable DAC	Portable DAC	DAC	Wireless DAC Product type	AV
Connections - input	USB	USB	USB-B, Toslink, 2x digital coax	802.11b/g/m, Wireless, Toslink Connections	- input 4x
Connections - output	RCA L+R, digital coax, 3.5mm	RCA L+R, digital coax, 3.5mm	Analogue, RCA L+R	RCA L+R	US
Headphone power output	140mW x 2 at 32 Ohm	80mW x 2 at 16 Ohm	-	- Connections -	
Volume control	Rotory	Rotory	Rotory 32bit digital attenuator	Rotory Connections -	
Maximum sampling rate (kHz)	384kHz/DSD256	96	192	192 Maximum san	
Bit resolution (bit)	24	24	24	24 Bit resolution	
Native bit rate	16, 24	16, 24	16, 24	16, 24 Frequency res	
Frequency response	20 - 25kHz	20 - 25kHz	20 - 25kHz +/- 0.25dB	20 - 20kHz	ratio (SNR) (dB) 100
Signal to noise ratio (SNR) (dB)	112	98	96	100 Power supply	
Power supply	USB bus powered, 1A/5V	USB powered, 80mA/5V	115V - 230V, 50 - 60Hz	5V 450mA Supported HD	Plu
Wireless type	-	-	-	802.11b/g/n	Pro HD
Weight (kg)	0.100	0.090	1.2	1.5	cha
Dimensions (W x D x H mm)	68 x 45 x 21	68 x 38 x 21	229 x 216 x 51	180 x 215 x 42 Video input	HD
Standard accessories	USB cable	USB cable	IR remote, power cable, USB cable	External power supply, wireless antenna	108 108
Colour	Silver	Red, Black or Silver	Black or Silver	Silver Weight (kg)	4.6
Suggested products	HEM series, DDA120, AVP18	NE800M, NE750M	STA120, STA200, uDAC5	STA120, STA200 Dimensions (V x D x H mm) 430

AV processor

AVP18



Home cinema

AV processor

4x HDMI, 2x digital coax, 2x Toslink optical, USB-B (service), USB-A Bluetooth

HDMI (ARC), 8x RCA, Toslink

RS232

192kHz

20Hz - 20kHz

100

115V - 230V, 50 - 60Hz

Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Pro Logic IIx, Dolby Pro Logic IIz, DTS, DTS ES, DTS HD, DTS HD Master Audio, DTS Neo:6, SPDIF, PCM 8 channel

HDMI/DVI, 480P, 576P, 720P50, 720P60, 1080i 50, 1080i 60, 1080P 50, 1080P 60, 1080P 24

4.6

Standard accessories

Suggested products

Colour

430 x 314 x 81

Power cable, IR remote control, setup mic for room equalization

Black

MCA18, MCA20, uDAC5



Optoma has a full range of business, education and home entertainment projectors.

To see the range please visit www.optoma.com



PRO SCENE

Optoma has a full range of professional AV projectors.

To see the range please visit www.optoma.com



	Integrated amplifiers		Amplifiers	Amplifiers
	DDA120	Model name	HA200	STA120
Product category	Home stereo	Product category	Home stereo	Home stereo
Product type	Integrated amplifier	Product type	Headphone amplifier	Stereo amplifier
Connections - input	RCA L+R, USB-B, S/PDIF coaxial 75 Ohm,	Connections - input	RCA L+R, XLR	RCA L+R
	2x Toslink, USB-A expansion for BT receiver	Connections - output	XLR, 6.3mm (stereo jack)	Five way speakers posts
Connections - output	Toslink, 5 ways speakers posts	Connections - control	-	-
Connections - control Power output	IR remote 50W per channel (80hm)	Power output	393mW at 16 Ohm, 747mW at 32 Ohm, 383mW at 100 Ohm, 129mW at 300 Ohm,	2x 80W at 8 Ohm
Maximum sampling rate (kHz)	32, 44.1, 48, 88.2, 96, 176.4		70mW at 600 Ohm	
USB sampling rates (kHz)	32, 44.1, 48, 96	Peak output power	600mW at 16 Ohm, 937mW at 32 Ohm, 530mW at 100 Ohm, 180mW at 300 Ohm,	300W
S/PDIF sampling rates (kHz)	32, 44.1, 48, 88.2, 96, 176.4		96.3mW at 600 Ohm	
Bit resolution (bit)	16, 24	Recommended headphone impedance (Ohm)	32 to 600	
Gain (dB)	Digital: 11.625	Balanced mode	200 Ohm, 14.6Vrms	-
_	Analog: 31	Frequency response	10Hz - 20KHz	10Hz - 40KHz
Frequency response	20Hz - 20kHz +/- 0.1dB	Signal to noise ratio (SNR) (dB)	>106	115
Signal to noise ratio (SNR)	>95dB A-weighted	Power supply	115V - 230V, 50 - 60Hz	115V - 230V, 50 - 60Hz
Power supply	90 - 264V ~ 50/60Hz 2.5A	Weight (kg)	2.2	3.5
Weight (kg)	1.2	Dimensions (W x D x H mm)	217 x 231 x 44	215 x 230 x 44
Dimensions (W x D x H mm)	241 x 216 x 51	Standard accessories	Power cable	Power cable
Standard accessories	IR remote, power cable	Colour	Black	Black or Silver
Colour	Black or Silver	Suggested products	HEM series	DAC80, WDC200
Suggested products	uDAC5			

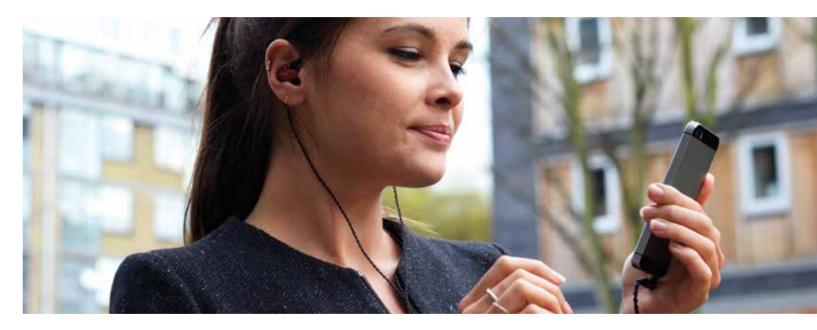
STA200 Home stereo Stereo amplifier RCA L+R Five way speakers posts 2x 80W at 8 Ohm 160W 20Hz - 80kHz 100 115V - 230V, 50 - 60Hz 6 355 x 224 x 87 Power cable, power connector (for WDC200) Silver DAC80, WDC200

MCA18	MCA20
	l
Home cinema	Home cinema
Multi channel amplifier	Multi channel amplifier
8x RCA L+R	8x RCA L+R
8x 5 way speakers posts	8x 5 way speakers posts
12V trigger	12V trigger
8x 55W at 8 Ohm	8x 110W at 8 Ohm
8x 80W at 8 Ohm	8x 187W at 8 Ohm
-	-
-	-
10Hz - 50kHz	10Hz - 50kHz
>89	>91
110V - 230V, 50 - 60Hz	115V - 230V, 50 - 60Hz
6.5	11
432 x 340 x 70	432 x 340 x 80
Power cable, 12V trigger cable	Power cable, 12V trigger cable
Black	Black
AVP18	AVP18

	Bluetooth		
Model name	BTR100	BTR1	
Product category	Home stereo	Home stereo	
Product type	Bluetooth receiver	Bluetooth receiver	
Connections - output	Optical, 3.5mm stereo	Bluetooth	
Frequency response	20Hz-20kHz	-	
Sensitivity (dB)	-84	-	
Signal to noise ratio (SNR) (dB)	>90	>92	
Power supply	5V 1A	-	
Operating range (m)	10	10	
Supported CODECs	aptX®, SBC, AAC	aptX®, SBC	
Weight (kg)	0.103	0.035	
Dimensions (W x D x H mm)	157 x 155 x 38	65 x 26 x 8	
Standard accessories	Power supply, 3.5mm - 3.5mm cable, 3.5mm - RCA L+R	-	
Colour	Black	Black	
Suggested products	-	-	

Social

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Key definitions

96/24

Higher than CD resolution with greater amounts of detail and bandwidth, resulting in a greater level of the original recording with very substantial and positive effect on the quality of bass and clarity.

192/24

Very high resolution audio available in two major formats. This offers the purest form of the music as captured in the studio. It is in fact the standard used by professionals to record most music.

Balanced armature driver

A balanced armature driver is able to reach frequencies of up to 40,000Hz for rich bass and clear highs. It uses a magnet to move a small diaphragm, resulting in low distortion levels for spacious, detailed and fatigue-free sound at any volume level.

Bluetooth®

Bluetooth smart technology is a wireless communications system intended to replace the cables connecting many types of devices such as mobile phones and headphones.

DAC

Digital to analogue converter, designed to translate digital signal of various formats into the analogue sound that is heard from a speaker or headphones.

DSD

Direct Stream Digital (DSD) audio is able to capture the original sound created by musicians in a professional studio. It is offering a range of sound and frequencies far greater than that of a CD. DSD offers a staggeringly realistic recreation of the originally recorded notes.

Hi-Res Audio

High resolution audio stands for audio formats that contain larger quantity of data and greater range than that of CD quality audio. Music made of high resolution audio can be heard from discs and downloads.

Integrated amp

Combines the ability to connect and select a source, change volume levels and output the signal sent from source as sound via a connection to speakers.

LPCM

A form of PCM files typically used to code high resolution movie sound tracks that are greater than CD audio guality.

Multi channel amplifier

Designed to connect to a surround sound speaker system and deliver the individual signal required to create the surround sound effect to each speaker.

PCM

Method used to represent digitised analogue signals; the most common form of digital audio. Used for CD replay, movie sound track and audio download files of various types all the way from MP3 to 192/24 audio files.

Power amp

Offering the power and current required to transform the signal sent from source into sound via a connection to speakers.

Pre amp

Improves separation of audio signal and provides the ability to change sources and volume levels. Requires a power amp in order to transform the signal from source into sound.

Pulse Width Modulation

A modern circuit that allows very efficient electrical design, typically known as Class-D amp, resulting in small compact structures that are able to provide a great deal of power, whilst maintaining lower power consumption when compared to traditional amp design.

RCA

The most common analogue speciality audio connection which is also known as "Phono" and "Single-ended" connection. This connection is designed to offer easy digital connection between audio components. Able to send high definition audio and mainly used in professional and broadcasting industry with BNC termination.

Surround sound processor

Detects and converts surround sound and other types of audio signal from digital and analogue sources and divides the signal between the individual speakers.

Toslink

S/PDIF

Optical fibre connection designed to transmit digital audio files. Commonly found on almost every home audio entertainment device. Able to transmit very high resolution signal as well as all Dolby and DTS HD format and many other PCM and LPCM audio formats. SIG, Inc. and any use of such marks t

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