

**DS Audio**



*New DS Audio reference system*

**DS W3**

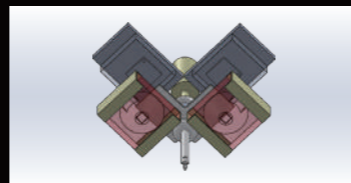


# DS W3

New DS Audio reference system

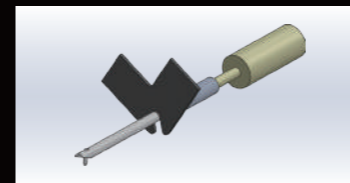


## Cartridge



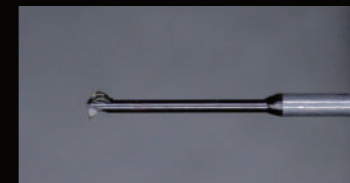
Independent LED and photo-detector arrangement for the left and right channels

The new DS-W3 optical cartridge system has been optimized, by implementing an independent LED and photo-detector arrangement for the left and right channels. As a result the cartridge output voltage has greatly increased from 40mV to 70mV. The DS-W3 cartridge offers a greatly improved S/N ratio when compared to its stable mates, resulting in an even lower noise floor and far greater musical clarity.



Weight of shading plate reduced by more than 50%

The implementation of independent left and right channel LED's allows for the positioning of the optical system to be optimized as well as necessitating the use of a new shading plate that has been significantly reduced in size compared to our earlier designs. In addition to this reduction in size, the material used to produce the shading plate has changed from aluminium (as used in the second generation cartridges) to 99.9% pure beryllium.



Boron cantilever & Aluminum body

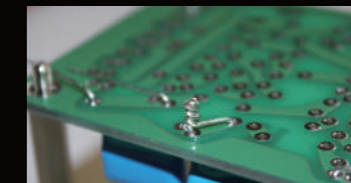
The DS-W3 cartridge features the combination of an Boron cantilever with a line contact stylus. The cartridge body is made by aluminum and the structure has been designed in such a way as to promote maximum rigidity. In addition to these features, the DS-W3 utilizes internal wiring 1.6 times thicker than used in the second generation cartridges in

## Equalizer



Changed the thickness of the circuit board and the thickness of the copper foil.

Compared to the DS-W2 equalizer, the thickness of the circuit board has been changed from 1.6 mm to 2.0 mm, and the thickness of the copper foil has been changed from 35  $\mu$  to 70  $\mu$ . We have also optimized the components to fit the third-generation cartridges. In addition, the DS-W3 equalizer allows you to select the cutoff frequency for the low frequency range from four types, allowing you to select an output that better matches your system.



Hand-made in Japan circuit board

Every component part used in our products is tested and evaluated by our expert Japanese technicians. In addition to using a specially printed circuit board, twist-connection of the component legs is further evidence of DS Audio's excellent attention to detail. Each and every product is hand-made and quality assured by our skilled engineers.

### DS-W3 Optical Cartridge

Signal output	Photo-electric Conversion
Channel separation	27dB more (1KHz)
Weight	7.9g
Output signal level	70mV (1kHz cartridge output)
Canti-lever	Boron
Body material	Aluminum(A5052)
Cantilever holder material	Stainless
Needle pressure	1.85g~2.05g(1.95g is recommended)
Stylus	Line contact

### DS-W3 Equalizer for Optical Cartridge

Output voltage	500mV(1kHz Equalizer output)
Output impedance	RCA 120 $\Omega$
Pre amp input impedance	More than 10k $\Omega$
Input terminal	RCA terminal
Output terminal	RCA terminal $\times$ 2,XLR terminal $\times$ 2
Size	W45cm $\times$ H12cm $\times$ D43.5cm
Weight	13.5kg

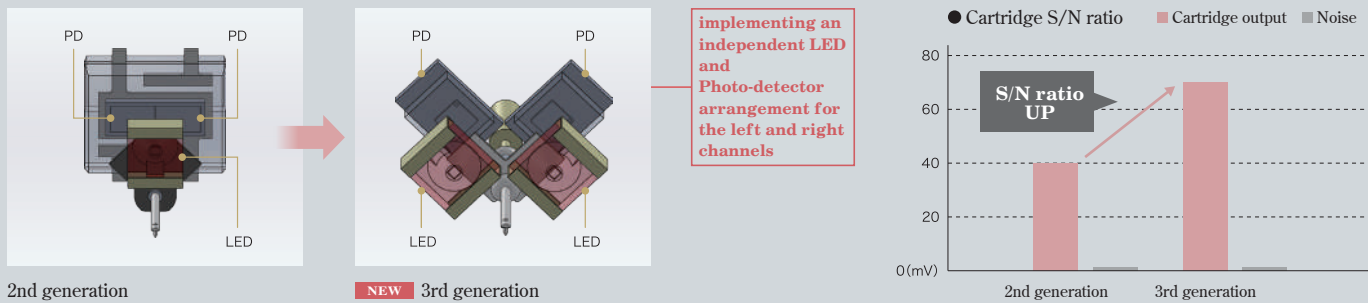
# DS W3

## DS-W3 Product Features

The DS-W3 cartridge is a completely new design. The third generation of DS Audio's optical cartridge features a comprehensively re-designed optical system that provides the following improvements and benefits:

We have further developed the optical cartridge system by implementing independent LED's and photo-detectors (PD's) for the left and right channels. The result is that the cartridge output voltage is dramatically increased from 40mV to 70mV (a 75% increase) and channel separation is greatly improved

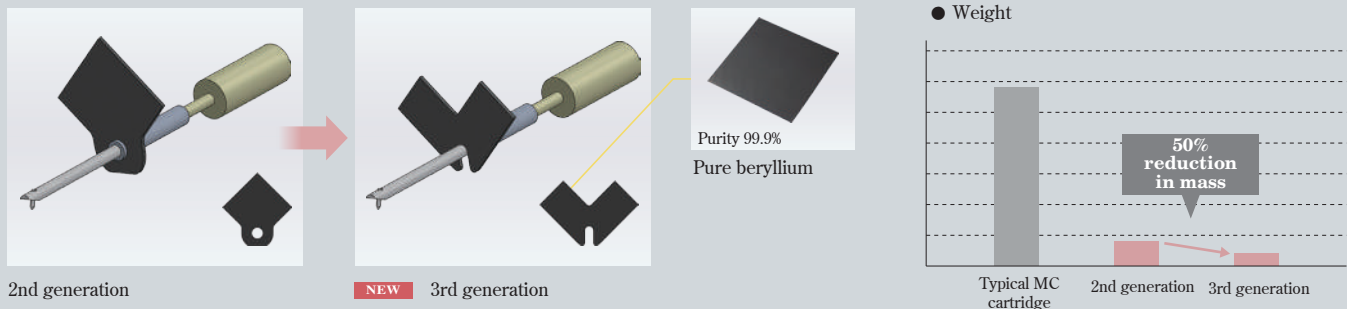
The new DS-W3 optical cartridge system has been optimized, by implementing an independent LED and photo-detector arrangement for the left and right channels. As a result the cartridge output voltage has greatly increased from 40mV to 70mV. Despite this dramatic increase in output, the excellent signal to noise ratio that DS Audio optical cartridges are renowned for has not been compromised. In fact, quite the opposite is true. The DS-W3 cartridge offers a greatly improved S/N ratio when compared to its stable mates, resulting in an even lower noise floor and far greater musical clarity. In addition to this, the new independent design of the DS-W3 cartridge has made it possible to eliminate crosstalk, greatly improving left and right channel separation (in particular the high frequency separation has improved by 10dB in comparison to its DS Audio forebears.)



## Over 50% weight reduction in our new reshaped, solid beryllium shading plate

The implementation of independent left and right channel LED's allows for the positioning of the optical system to be optimized as well as necessitating the use of a new shading plate that has been significantly reduced in size compared to our earlier designs. In addition to this reduction in size, the material used to produce the shading plate has changed from aluminium (as used in the second generation cartridges) to 99.9% pure beryllium.

As a result of this, we succeeded in reducing the weight of the shading plate by more than 50%, from 1.56mg to 0.74 mg. This is less than 1/10th of the mass when compared to the core and coil system found in a typical MC (moving coil) cartridge and further improves one of the key advantages of DS Audio's optical cartridge technology, which is an incredibly low effective mass.



## Featuring a Boron cantilever & Body, rigid construction design and improved internal wiring.

The DS-W3 cartridge features the combination of aluminum cantilever with a line contact stylus. The cartridge is made by aluminum and the body structure has been designed in such a way as to promote maximum rigidity. In addition to these features, the DS-W3 utilizes internal wiring 1.6 times thicker than used in the second generation cartridges in order to reduce impedance.

