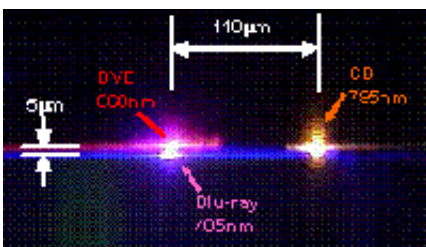


Sony Develops Blu-ray Disc, DVD and CD compatible, 3 wavelength recording/playback Optical Head

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Sony Corporation has developed a single **3-wavelength recording/playback optical head**, capable of recording and playing-back 3 formats, Blu-ray Disc (BD), in addition to DVD, CD, which is a high-density optical disc system capable of recording/playing back high definition contents.

BD is an optical disc system capable of recording and playing-back HD contents from, for example, HD broadcasting. Sony has commercialized the world's first BD recorder with this standard. The BD market is expected to expand in the coming era where high-quality contents will become the mainstream and BD recognized as the indispensable optical disc system. On the other hand, together with the capability to recording/playing-back HD contents of the BD standards, it is desired for the BD recorder to play DVD software, recorded

rewriteable/postscript DVD disc, as well as playback of music CD. In order to cope with this, in , 2 optical heads, one to playback DVD and CD, and the other to record and playback BD is incorporated.

In the newly developed 3-wavelength recording and playback optical head, the main characteristics are its capability to record/playback the 3 formats, BD, DVD and CD with one single optical head. This is achieved by the introduction of the newly developed single unit 3 wavelength laser, and also an object lens corresponding to the 3 wavelengths.

In the single unit 3 wavelength laser, by combining production techniques of high-level output blue-violet laser diode and processing precise alignment of multiple laser units, single packaging is realized. In the object lens, introduction of aspherical glass and hologram lens to achieve spherical aberration correction, corresponding to each wavelength enables one series of optical system to deal with 3 wavelengths.

By precisely processing the semiconductor laser chip of each wavelength, BD (wavelength:405nm), DVD (660nm) and CD (785nm), in a single unit, 3 types of lasers are emitted from 1 package.

Sony will target commercializing the newly developed 3-wavelength optical head within 2 years, and will positively promote to further technology development. By doing so, in addition to further reducing the number of parts used for achieving smaller size of optical heads, enhancement of productivity and reliability will be achieved. This will contribute to the BD market expansion by realizing BD related key devices to be utilized in various AV and IT products.

Find more details at [Sony Corp. web-site](#).

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