

Transmittance Spectra of Optical Pickup Lens for BD,DVD and CD Drive

INTRODUCTION

The drive of Blu-ray disc (BD), DVD, or CD uses semiconductor laser emitting at 405 nm (BD), 650 nm (DVD), and 780 nm (CD) to process the information from the disc. The transmittance of the pick up lens used in each drive was analyzed by U-4100 spectrophotometer and trace sample transmittance measurement system. As a result, the transmittance of BD, DVD, and CD at the wavelength of the semiconductor laser was found to be high (>97.5%). By using this system, a newly developed lens can be evaluated and the quality control of the lens in a product can be performed.

SAMPLE

Sample : Pick up lenses used for Blu-ray disc (BD) drive, DVD drive, and CD drive

INSTRUMENT CONDITIONS

Instrument : U-4100 Spectrophotometer (Solid Sample Measurement System)
(P/N : 134-0002)

【UV/VIS】

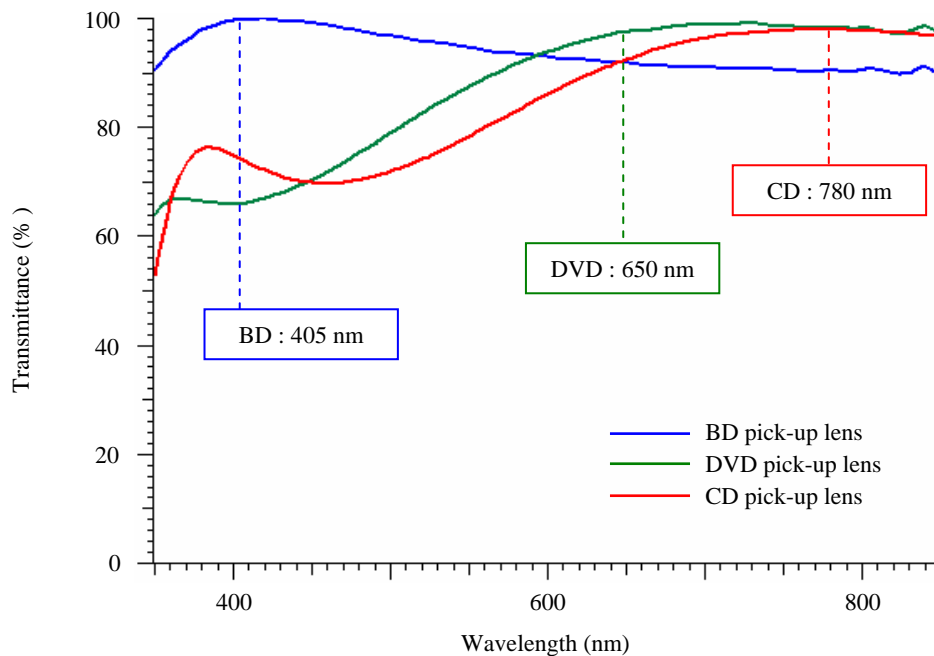
Scan speed : 300 nm/min
Slit : 8 nm
Sampling interval : 1 nm

ACCESSORY

Trace sample transmittance measurement system
(P/N : 1J0-0203)

φ60 full-sphere integrating sphere accessory
(P/N : 134-0205)

Sample holder
(purchased individually)



Transmittance Spectrum of Pick-up Lens Used in Each Drive

KEY WORDS

Electronics·Semiconductor Related, Other Electronics·Semiconductor Related, Transmittance Spectrum, Blu-ray, Material, Semiconductor Laser, Lens, Pick-up, Laser Diode, Optical Pickup, UV, NIR, U-4100, BD, DVD, CD, 780nm, 650nm, 405nm

Spectrophotometer (UV)

Sheet No. UV080015-01