Servo response for magnetic and optical disk drive

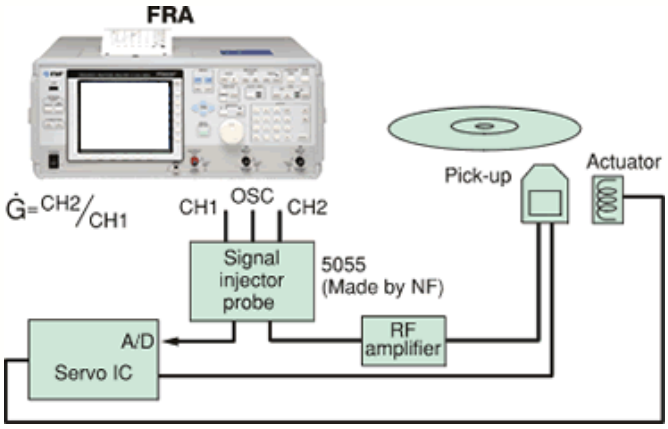
Key words

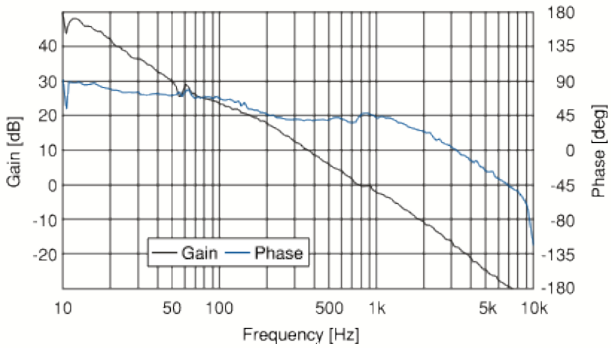
- Optical Disc drive
- Hard disk drive
- Servo mechanism

Frequency Response Analyzer
FRA5087 / FRA5097

OUTLINE

In an optical drive or a hard disk drive, a servo mechanism is used to control the pickup. The stability is important in such servo mechanism.





▲ Servo characteristics of magnetic disc

POINT

- The open- loop characteristics of the actually operating mechanical system control can be measured.
- If the servo characteristics have a hysteresis, the measurement and the comparison is possible by switching the direction of the frequency sweep UP and DOWN.
- By setting the delay between the start of measurement and the start of sweep, the impact of the measurement by the operation delay of the mechanism can be removed.
- By using NF signal injector probe 5055, It is possible to eliminate stray capacitance, high accuracy measurement can be possible.

Frequency Response Analyzer FRA5087 / FRA5097

- Frequency range 0.1mHz to 10MHz / 15MHz
- Gain accuracy : ±0.05 dB
  Phase accuracy : ±0.3°
- Dynamic range : 140 dB
- Isolation:
  250Vrms (INPUT-OUTPUT)
- Auto ranging