

ABSTRACT OF THE DISCLOSURE

DUAL WIRE INTEGRATED WAMR/HAMR WRITING HEAD

An apparatus comprises a waveguide, an optical transducer for coupling electromagnetic radiation from the waveguide to a point adjacent to an air bearing surface to heat a portion of a storage medium, and a first wire positioned adjacent to the air bearing surface, wherein current in the wire produces a magnetic field in the heated portion of the storage medium.

FIGURE 2