

CCP-CPP-GMR HEAD ASSEMBLY, MAGNETIC RECORDING/REPRODUCING
APPARATUS, AND SPECIFICATION METHOD OF APPROPRIATE SENSE CURRENT
DIRECTION OF CCP-CPP-GMR HEAD

ABSTRACT

Disclosed is a CCP-CPP-GMR head assembly which has: a
CCP-CPP-GMR head that includes at least a current control layer
5 having as a microstructure a plurality of truncated cone electric
conductors with axes the same as a current direction and an insulator
filling between the plurality of truncated cone electric conductors,
and in which a surface on which a larger-area basal plane of the
plurality of truncated cone electric conductors is greater in number
10 is a first surface of the current control layer and a surface of
an opposite side of the first surface is a second surface of the
current control layer; and a sense current source providing the
CCP-CPP-GMR head with a sense current that flows from the second
surface to the first surface, a magnetic recording/reproducing
15 apparatus having such a head, and a specification method of an
appropriate sense current direction of the CCP-CPP-GMR head.

FIG. 1