Engineering Change Request

ECR Number: JGW-E1706309

Requester: Yoichi Aso , Request Date: 2017/3/5

Approved by: , Approval Date:

Summary of the change

Modified component/subsystems: Coil bobbins for the BS RM coils.

When: For the BS real mirror installation (starting in June 2017)

How: The design of the coil bobbin is changed to remove the mounting holes for PD and LED. The length of the coil bobbin is elongated to cope with the reduced height of the magnet base on the mirror side.

Reason for making this change

The size of the magnet base on the BS is reduced to minimize the thermal noise as well as the risk of knocking the magnet down. It was also decided to remove the sensing functionality from the mirror OSEM making it just a coil. The length sensing OpLev will be used as a local sensor instead.

The requested change in the coil bobbin design is necessary to realize the above changes.

Details of the change

Overview of the design change is explained in <http://gwdoc.icrr.u-tokyo.ac.jp/cgi-bin/private/DocDB/ShowDocument?docid=6310>

The new coil assembly: <http://gwdoc.icrr.u-tokyo.ac.jp/cgi-bin/private/DocDB/ShowDocument?docid=6106>

Coil body assembly: <http://gwdoc.icrr.u-tokyo.ac.jp/cgi-bin/private/DocDB/ShowDocument?docid=6097>

References

Old design: <http://gwdoc.icrr.u-tokyo.ac.jp/cgi-bin/private/DocDB/ShowDocument?docid=4353>