

OB-04 OBC Control Test

ENGINEER: _____

DATE:

COMMENTS:

supplanted by V05_OBCopen_node

MARS

Org: WHOI

Engr: Fritz Sonnichsen

Date: 01/21/05

OB-04 OBC Control Test

Purpose of Test:

This test is a more extensive version of the OB-01 Matrix Switch test. In this test we introduce the optical transceivers and 50km spools of fiber in order to create realistic delays in the system, and in order to insure that the transceivers RS232/CMOS signalling levels are proper

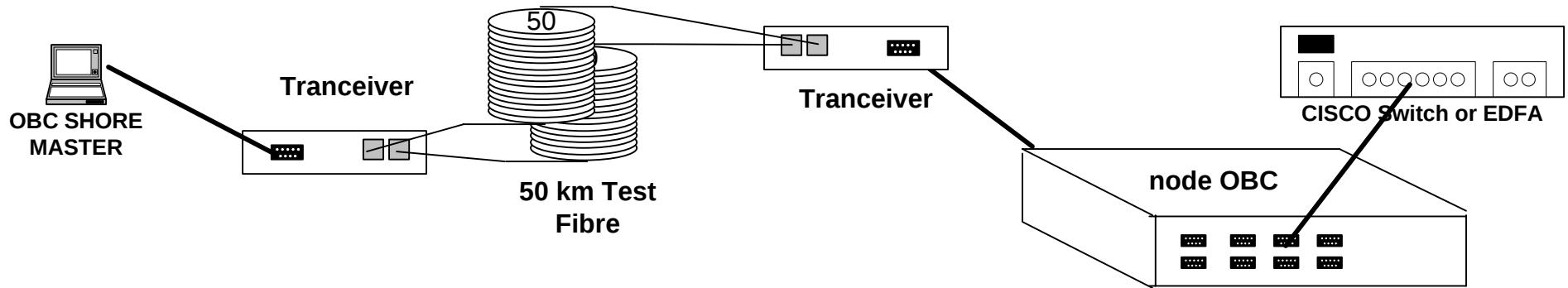
Required Equipment:

- Node OBC unit
- 2 laptops
- two 50 km fibre spools
- two optical transceivers
- ASCII 9.6kB/s BERT test set

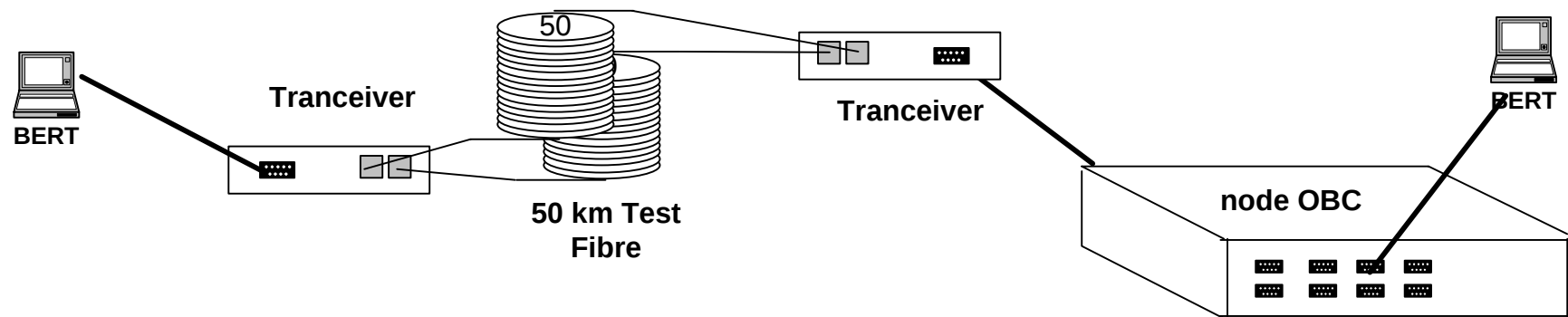
Description:

The devices mentioned above will be connected as in the setup diagram. Commands will be issued from the SAIL busses and controller PC to command the matrix switch and connect to the laptops representing science instruments. Attempts will be made to foil the function of the Control. A BERT test will be performed as well.

OB-04 OBC Control Test - Setup



CONTROL TEST



BERT TEST

OB-04 OBC Control Test - procedure

CONTROL TEST

After connecting the devices per the setup diagram, perform the following tests:

- 1) Determine if the controlled device can be mapped and accessed from the shore controller. Attempt several configuration downloads, displays, and switching from port to port on the matrix switch.
- 2) Repeat the above tests from the alternate SAIL bus/RS232 port by moving the transceiver to the other port.

BERT TEST

After connecting the devices per the setup diagram, perform the following tests:

- 1) Record the optical output power while the BERT tester is throwing frames
- 2) Perform a BERT test for at least 1 hour
- 3) Repeat the BERT test using the alternate SAIL bus/RS232 port by moving the transceiver to the other port

CONTROL TEST

Certify that all attempts on both SAIL busses yielded proper results with no errors. Enumerate below:
1) the DCS device tested 2) The matrix switch port used

BERT TEST

SAIL B

Number of errors:_____ Length of Run:_____

OPTICAL OUTPUT POWER: _____

SAIL B

Number of errors:_____ Length of Run:_____

OPTICAL OUTPUT POWER: _____