

VLBA ACQUISITION MEMO #230
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
HAYSTACK OBSERVATORY
WESTFORD, MASSACHUSETTS 01886

12 December 1990

Telephone: 508-692-4764
Fax: 617-981-0590

To: VLBA Data Acquisition Group

From: Alan E.E. Rogers

Subject: Reduced L.O. leakage from the BBC

As proposed in VLBA Acquisition Memo #217, I have now tested a BBC with a modified 4-way switch. I changed the GPD-1003 to a GPM-1052 and in order to maintain the same gain I changed the MAT-3 to MAT-15 (instead of the MAT-12 proposed in Acquisition Memo #217). The results were as follows:

Frequency MHz	Before Mods. L.O. leakage	With 1052 L.O. leakage	Notes
500	-69 dBm	-95 dBm	
750	-69 dBm	-93 dBm	
1000	-53 dBm	-86 dBm	1

Notes: 1] With the cover off the SSB mixer submodule, the reverse leakage increased to -70 dBm. Isolation between ports was not effected by the change and remained at better than -55 dB worst case.

2] Leakage measured at I.F. input to BBC.