

VLBA ACQUISITION MEMO #193

IDENTIFICATION CODES FOR THE 14-BBC DAR.

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In the standard Data Acquisition Rack (DAR), as used in the VLBA, the identification codes for the eight Baseband Converter (BBC) Slots are the hex numbers 20 to 27, and the codes for the two IF Distributors and the Formatter are in the range 28 to 2C. These apply when the rack is used as DAR #1 at the antenna, and these numbers can be changed to 30 to 3C when the rack is used as DAR #2. This change is made by throwing a switch on the bottom panel at the rear of the rack, and allows units in two DAR's at an antenna to be addressed individually through the monitor and control bus. In the case of the 14-Baseband-Converter version of the rack (see Data Acquisition Memos 89 and 167) there are six more BBC slots for which identification must be provided.

Note that there seems to be no foreseeable application in which two 14-BBC racks will need to be used together at the same antenna. Thus in Data Acquisition racks made to accommodate 14 BBC's it is planned to omit the switch that changes the most significant ID digit between 2 and 3. Instead, BBC slots 1 to 8 will be wired for identification codes 20 to 27, and BBC slots 9 to 14 will be wired for identification codes 30 to 35. Codes 28 to 2C will be used for the IF Distributors and the Formatter. This scheme requires minimal changes in existing VLBA software. The assignment of ID values to module slots is done through the wiring of the Amp connectors on the back of the bins, and is not difficult to change if required in some special situation.

It is proposed that in NRAO listings of units, such as the maintenance data base, the 14-BBC DAR be referred to as an E-Rack or EDAR (E = 14), to distinguish it from the standard 8-BBC model used in the VLBA, which is referred to as a D-Rack or DAR.