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5 July 1988

To: VLBA Data Acquisition Group
From: Alan E.E. Rogers
Subject: New Bandwidth Compensation Gain Codes for Baseband Converters

As part of an effort to improve the performance of the baseband converters several changes have been made. Most of the changes are only minor circuit and layout modifications. One change, however, does effect the protocol. This change removes an entire amplifier stage, (thereby simplifying the circuit) dropping the gain by 6 dB which is compensated by increasing the gain compensation with new codes to bring the gain back to the specified amount for each bandwidth. The new gain compensation codes are:

BW	CODE	GAIN dB
16 MHz	40H	6
8 MHz	20H	9
4 MHz	10H	12
2 MHz	8H	15
1 MHz	4H	18
500 KHz	2H	21
250 KHz	1H	24
125 KHz	29H	27
62 KHz	2BH	30

All new converters (Serial #9 and up) have the new circuit and converters 1 through 8 will be updated as soon as possible. [Using the new codes on the unmodified converters will result in the gain being 6 dB more than the specified amount and vice versa.]