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To: Mark 5 Development Group

From: Dan L. Smythe

Subject: Using a Mark 5 Prototype at Kokee

This memo describes how to interface a Mark 5 Prototype system to the VLBA Formatter at Kokee in such a way that Mark 5 recordings can be made simultaneously with tape recordings. The Mark 5 Prototype can be connected to the VLBA system in one of two ways. 1) It can be connected to the active tape recorder, and will receive data only when that recorder is recording. 2) It can be connected to the VLBA Formatter, and can record data simultaneously with either of the two tape recorders, or independently, without an active tape recorder.

It is trivial to connect the Mark 5 Prototype to an active VLBA recorder, because the pin assignments of the Mark 5 Prototype input board are the same as the input to the VLBA Write Driver. Simply remove the 100-ohm terminations from the Mark 5 Prototype input board and plug a pair of 40-pin "Intra-Connector" into the input connectors of the Mark 5 Prototype to daisy-chain it with the VLBA Write Driver input cables. An alternative to the Intra-Connector is a long ribbon cable with a connector at each end and one in the middle for the Mark 5 Prototype.

It is more complicated to make the Mark 5 Prototype independent of the VLBA recorder. Since the pin assignment at the output of the VLBA Formatter is different from the Mark 5 Prototype, an adapter is required to connect the Mark 5 Prototype to the output of the VLBA Formatter. A wiring diagram of such an adapter is shown in the attached figure. With this adapter, the Mark 5 Prototype can record data simultaneously with either of two VLBA tape recorders, or independently, without an any tape recorder.

Also, the Mark 5 Prototype Output Board has a 20-pin connector that can be connected directly to the VLBA Data Quality Analyzer (DQA). This connector, together with the adapter in the attached figure, could be used to replace a second VLBA recorder with a Mark 5 recorder, with full DQA capability for both the VLBA recorder and the Mark 5 recorder.

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A

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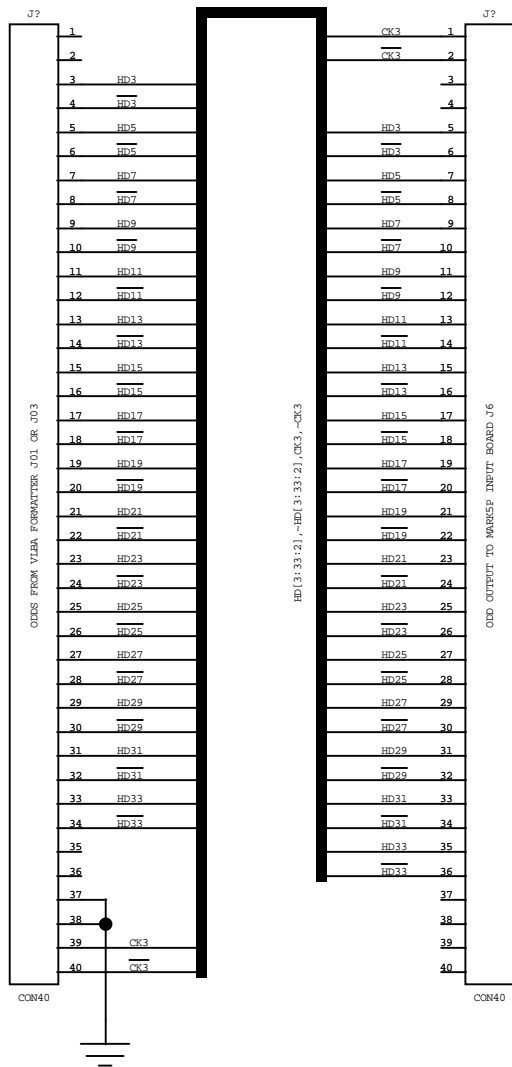
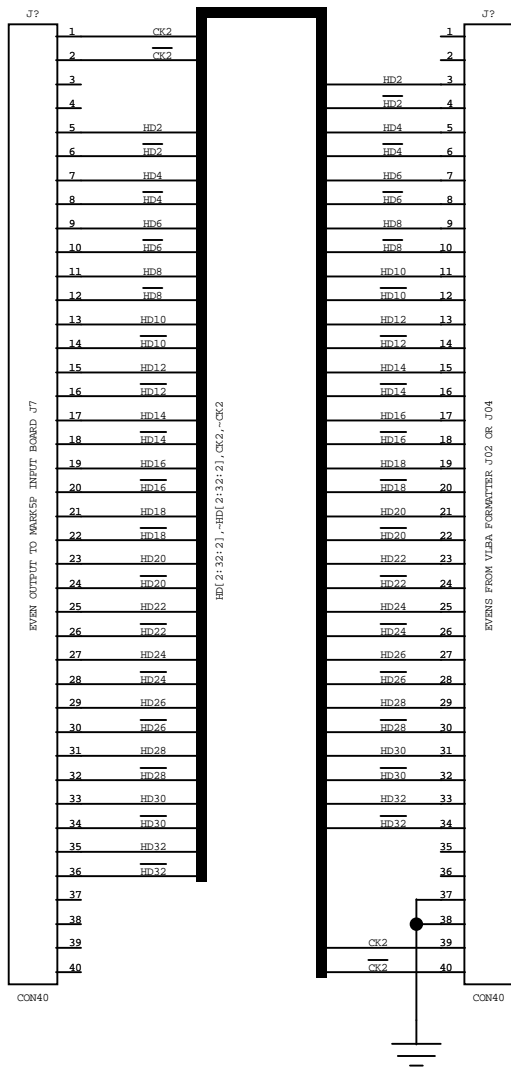
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MARK 5 PROTOTYPE RECORDER
 ADAPTER TO VLBA FORMATTER OUTPUT

DESIGNER	DATE SPECIFIED	DATE	10-2-2001_14:10	SIZE	B	ENG. NO.		REV.	
DRAWN		SHEET	1	OF	1				