

NATIONAL RADIO ASTRONOMY OBSERVATORY

MEMORANDUM

November 16, 1981

To: H. Hvatum  
(OOE planners) M. Balister  
R. Burns  
R. Ekers  
M. Gordon  
M. Haynes  
G. Hunt  
B. Meredith  
P. Napier  
J. Payne  
S. Weinreb

From: R. Lacasse

Subj: Proposed Pulsar Receiver

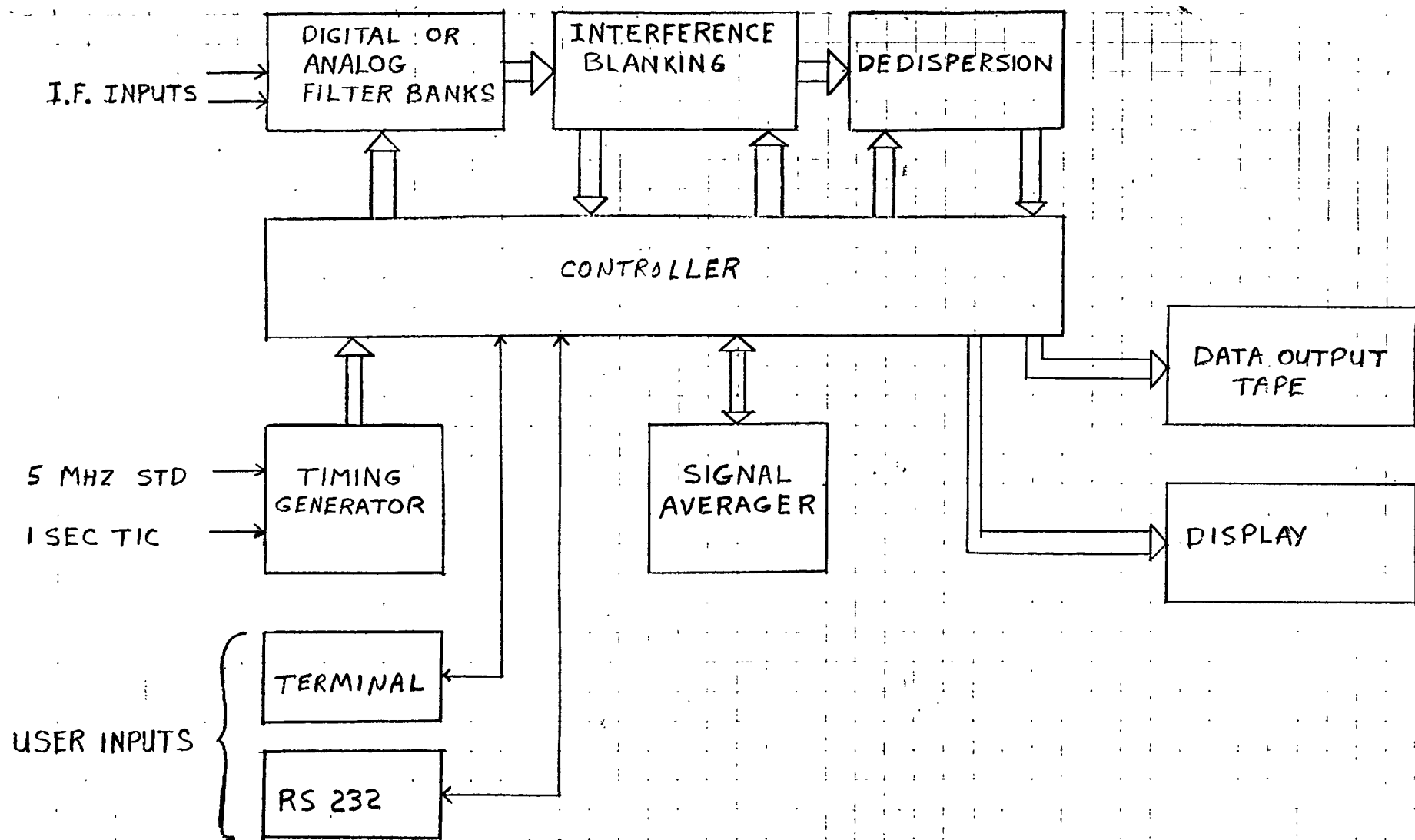
It has been suggested that a description of the proposed pulsar receiver be distributed to the OOE planners. However, at this point in time it is tough to come up with even a moderately detailed description. There are several ways to go with this design and further study is needed to decide which is the most appropriate. The current status of this project is summarized below along with various design possibilities.

The first step was contacting several pulsar observers, asking them if they thought such a project was scientifically justifiable. The reply from all those contacted was an enthusiastic yes. In addition, many suggestions were received on possible implementations. The ball is now in our court to carefully evaluate these suggestions, come up with cost/performance tradeoffs for various configurations, etc.

A simple block diagram of the proposed receiver is attached. Some trade-offs to be considered include digital vs. analog filter banks, number of filter banks required in an analog scheme, how fast and smart do we make the interference blanking, how many resources can be shared with the Mod-comp's, etc. As a result, it is difficult to put a price tag on this receiver until quite a bit of work is done. For the present, the figure of 100 K seems reasonable.

RJL/cjd

Enclosure  
Block Diagram



PROPOSED PULSAR RCVR

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R. LACASSE