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SPECIFICATIONS FOR FILTER-CRYSTAL UNIT

1. This unit shall be comprised of a crystal mount and an r-f band-pass filter connected together mechanically and electrically.

2. The input impedance to the filter is that of an antenna and is nominally a resistive load of 50 ohms magnitude.

3. The crystal mount shall be oriented so that the video output pulses are of a negative polarity.

4. The crystal mount or filter must provide a dc return path for the bias current.

5. The insertion loss within the bandpass filter is to be no more than 2 db, within the pass band.

6. The r-f band width of the filter shall be 2600 (+0 -50) to 3250 (+50 -0) mc with no more than 2 db insertion loss within this band.

7. The Off-Band rejection of the filter should be at least 50 db attenuation to signals from dc up to 2300 mc and from 3600 mc up to at least 11 kmc.

8. The maximum weight of this unit is to be no more than 3 ounces.

9. The Physical configuration must be such that the unit can occupy a quadrant section of a circular disc 8 1/2" in diameter and be no thicker than one inch.

10. This wedge shaped or quadrant section must be suitable for being potted.

11. The crystal to be used is a selected MA-408-3 which must be available for replacement prior to encapsulation of the unit.

12. The rf tangential sensitivity of the unit when connected to an amplifier with a 2 mc video bandwidth and sufficient gain, is to be as high as possible with -55 dbm being a design goal.

13. Input connector is a 50 ohm micro-miniaturized connector with number 10-32 threads, such as Microdot type 31-61 series S-50 or the 31-03 series S-50.

14. The output connector is to be a 50 ohm coaxial connector such as the Microdot type 31-61 or the 31-03 of the Series S-50 connectors.

Bidders shall submit with their bids a description of the material they propose to furnish, including the expected performance, in sufficient detail to permit the laboratory to determine, without further reference to the bidder, that their material may be expected to meet the requirements of the specifications and be suitable for the purpose intended. Failure to submit such data may be cause for rejection.

Delivery Point - Naval Research Laboratory
Inspection - Final inspection at point of delivery
Deliveries - One model for preliminary test and inspection within 30 days after award of contract. Remainder within 30 days after approval of preliminary model.

HANDLE VIA BYEMAN CONTROL SYSTEMS ONLY

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