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Applied Research I N C .

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November 1, 1960

Naval Research Laboratory
Washington 25, D. C.

Attention: Mr. H. Lorenzen,
Bldg. 56, Room 219

Gentlemen: Subject: UHF Diplexer

We wish to thank you for your continued interest in our Company and products. In accordance with our conversation on the subject of 26 October 1960, we have prepared engineering information, price and delivery date on a diplexer which meets the following characteristics:

1. Antenna input 50 ohms. The diplexer is to provide two outputs, the first from 550 to 620 MCPS and the second from 810 to 920 MCPS.
2. Each channel is to include a video crystal detector, Microwave Associates No. MA408B or equal. The sensitivity of each channel shall fall within -55 to -58 DBM.
3. The rejection at each of the center frequencies for each channel shall be 35 DB minimum.
4. The size shall be approximately 5-1/4" X 3" X 1-3/4".
5. Provisions shall be included in the diplexer to attenuate frequencies above 2500 megacycles by at least 15 DB.

It was discussed that the units will be ordered by sets, a set comprising two diplexer assemblies. We have investigated the type of connectors which we feel will best meet the requirements. We recommend either the Amphenol miniature connectors or the Selectro miniature connectors. These have been tested and proven satisfactory in similar items operating in the UHF range.

In order to establish the design, we will assemble the first set to meet electrical characteristics only. The material for the chassis will be brass. Additional units will be built in aluminum to have a minimum weight of approximately 12 ounces. The unit consists of a low pass filter, a diplexer feed, two bandpass filters, a triple and a quadruple tuned filter, two xtal video detectors and matching RF and video networks.

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The cost for one set, consisting of two diplexers, is \$2,950.00. The cost for additional sets will be established after acceptance of the first unit. The nomenclature for these units is Diplexer Type RFM-5592-2. We can deliver one unit within 45 days after receipt of order.

We trust that this is satisfactory and that we may be of continued service to your organization.

Very truly yours,

APPLIED RESEARCH INC.

A. M. Scandurra
A. M. Scandurra

AMS:um

cc: Mr. Mayo
The Jay Company

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