

May 21, 1941

Mr. N. B. Krim
Raytheon Production Corporation
55 Chapel Street
Newton, Massachusetts

Dear Mr. Krim:

You will remember that we had some correspondence about electronic tubes for a computing machine which we are building, and that you gave us a shipment of 100 6C8G's. These tubes are operating perfectly in our machine, and I will of course write you details of their use when the machine is completed.

We still have not filled the thyrotron need about which I wrote you. However, we have found that the 2A4G well fills our need when used in a somewhat different way. We employ two of them in parallel in the primary of a transformer, and induce a high voltage transient in the secondary by allowing them to fire at a specified point on the input AC cycle. We allow each to pass a peak current of about one ampere for a very brief and interrupted interval, after which the tube is given a rest period. We were afraid that the high peak current would prove injurious, but have given a pair of tubes a life test corresponding to many years of actual service under these conditions, without appreciable diminution of function.

In the construction of the machine we will need seventy-five of these 2A4G's. Please quote the prices at which you will furnish these tubes to Iowa State College for use in this research machine.

Very sincerely yours,

J. V. Atanasoff
Assoc. Prof. Math. and Physics

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