

Memorandum M-2873

Page 1 of 2

Division 6 - Lincoln Laboratory
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

SUBJECT: BASIS FOR RELEASE OF FERRITE-MEMORY-CORE SPECIFICATIONS

To: Stephen H. Dodd, Jr.

From: David R. Brown

Date: June 17, 1954

Abstract: MIT proposes approval of release of IBM engineering specifications No. 3043000, engineering change No. 11183, for the ferrite memory core to facilitate procurement negotiations with the General Ceramics Corp. and the development and construction of test equipment. New specifications embodying a simplified test procedure, but not changing the memory-core characteristics, are expected on approximately September 1, 1954. Test-equipment planning should be based on those new specifications.

The present ferrite-memory-core specifications, No. 3043000, engineering change No. 11183, together with IBM drawing No. 3008039 are based upon MIT Engineering Note E-563 and comprise only purchase specifications for General Ceramics cores. These specifications may be used for guidance of other vendors but are sufficient neither to guarantee satisfactory cores from another vendor nor uniquely define an acceptable core. A new set of specifications may have to be written for each new vendor.

The use of the present specifications as a basis for the inspection procedure should be reviewed. Since they were not written for this purpose, some omissions may be noted. For example, the average peaking time for each lot is now determined and used as a basis for mixing of lots in a single frame.

No change in the characteristics of the ferrite memory cores is contemplated. However, new purchase specifications for General Ceramics' cores are being written which embody a simplified testing procedure. The new specifications are expected to be ready on approximately September 1, 1954. In developing these new specifications, close cooperation must be maintained among IBM, General Ceramics Corp., and MIT.

In negotiating with General Ceramics for the purchase of memory cores for production machines, the IBM purchasing officer should maintain close contact with Project High development engineers and the MIT Magnetic Materials Group. Already much has been done to give General Ceramics a picture of the future production schedule to enable them to develop the necessary production facilities and establish an emergency stockpile.

Memorandum M-2873

Page 2

In planning test equipment for inspection of memory cores, IBM test-equipment engineers, working with Project High development engineers, should be well informed of, and guided by, the new specifications as they develop. Objectives of the new specifications include a reduction in the test equipment, testing time, and manpower, and complete automatization of 100-percent testing.

Signed



David R. Brown

DRB/jk

cc:

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