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FERRITE CORE MEMORY DESIGN

by

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## CHAPTER I

### INTRODUCTION

A fundamental part of computers and as important part of most data processing systems is that portion which performs the function of storage. The terms "storage" and "memory" are synonymous, although the latter usually connotes high volume, long term storage.

Storage units may be divided into several classes, such as fast and slow, large and small, temporary and permanent, and volatile and nonvolatile, depending on the uses for which they are specified.

The main working memory, in which data is more or less temporarily stored and updated, usually consists of a high - speed array of thousands of ferrite cores or similar one-bit elements which can be almost instantaneously addressed for retrieval of data or insertion of new data. All of the data which might be required in the solution or processing of the problem at hand is normally placed in the main memory before the commencement of computation and recalled from the memory when needed during the steps of the computing process. (with exceptions, perhaps, for a process control or a computer which has data already stored in it by using Rom. Read only memory).

Data which must be held more permanently and recalled occasionally without the requirement for microsecond access is often stored on a magnetic drum or disc. This type of memory is always addressed, or interrogated, in the sequential mode; that is, every data location around the periphery is scanned in turn as the disc or drum rotates. If one