

A Complete Course in Electrical Engineering - First Edition Primer

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Part I

Communication Engineering

Chapter 1

Introduction

1.1 North American Black and White Television (For Historical Purposes)

The picture is divided into 525 lines, which constitute a frame. Each frame is decomposed into two interlaced fields, each of which consists of 262.5 lines. For convenience of presentation, we will refer to the two fields as I and II.

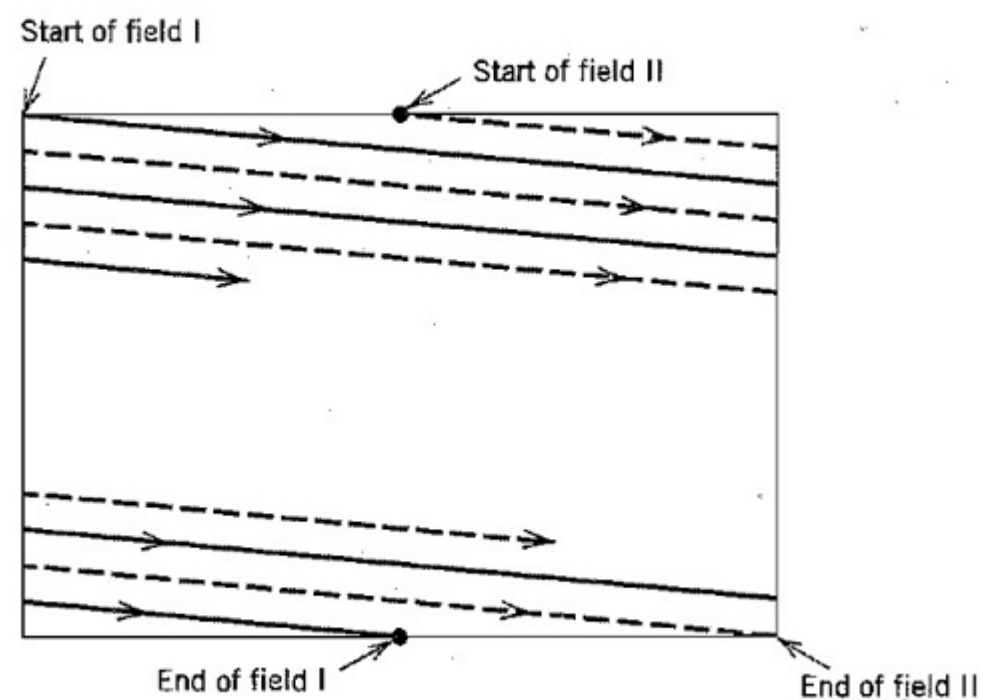


FIGURE Interlaced raster scan.

The time taken for each field to be scanned is $1/60$ s. Correspondingly the time taken for a frame or a complete picture to be scanned is $1/30$ s. With 525 lines in a frame, the line scanning frequency is 15.75 kHz.