



# DEVELOPMENT STANDARD

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QIC-102  
Revision A  
10 Dec 85

MAGNETIC HEAD FOR USE WITH  
QIC-100-MC RECORDING FORMAT

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(See important notices on the following page)

## **Important Notices**

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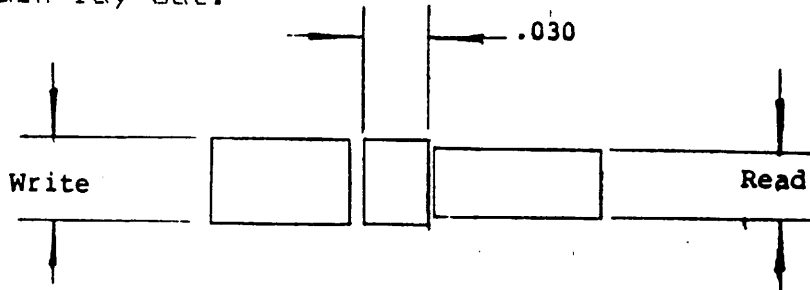
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1. The mechanical format of the head:

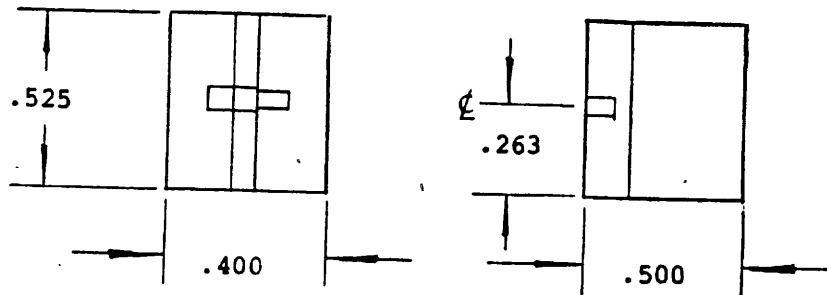
A. Track lay out:



Two dash numbers are assigned to differentiate between 12 & 24 tracks.

	<u>Write ETW</u>	<u>Read ETW</u>
-1. 12 Track	.0190 +/- .0010	.0100 +/- .0005
-2. 24 Track	.0080 +/- .0005	.0060 +/- .0005

B. Head outline dimensions:



- C. Read gap length nominal  $40\mu$ " (12,500 FRPI Ref.)  
 Write gap length nominal  $85\mu$ " (12,500 FRPI Ref.)

2. Electrical format: (12,500 FRPI format)

A. Overwrite: When the longest wave length is overwritten by the shortest wave length, a -30db attenuation should be measured by a spectrum analyzer with a sampling band width of less than 5% overall system band width, which is determined by the shortest wave length recorded.

B. Peak shift: Should nominally be less than 15%.

- C. Resolution: Is determined as the ratio  $\frac{EO\ 12,500\ FTPI}{EO\ 4,167\ FTPI} \times 100\%$

This ratio shall be a minimum of 50%.

- D. Magnetic isolation: This is a measure of the recording level in the read gap while writing, and the level of read flux in the write gap while reading.

The ratio to be greater than -30db attenuation reference to the signal amplitude at 12,500 FRPI.

- E. ISat: Is the current amplitude that yields the maximum read output at 12,500, FRPI.

I1-The current amplitude that yields the first 95% of the maximum read output at 12,500 FRPI.

I2-Iwrite = 110% Ref of I1.

- F. Output: The peak output voltage at 12,500 FRPI and 90 k/s to be 1.0mV minimum when measured with a full coil load of 5k - 15pf.

3. Reference data:

The following available information was used in determining this development specification.

Tape DC2000 or equivalent

Tape Width .2470 +/- .0005

Magnetic tape coating thickness 90u"

Coercivity, 500 oersteds

Tape speed from 30 ips to 120 ips

Density: 12,500 FTPI

4. Design options:

The proposed head design lend itself for upgrading to higher linear and track densities i.e. 18000 FRPI and 32 tracks.