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

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1. The mechanical format of the head:

A. Track layout:

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

<table>
<thead>
<tr>
<th></th>
<th>Write ETW</th>
<th>Read ETW</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Track</td>
<td>0.0190 +/- 0.0010</td>
<td>0.0100 +/- 0.0005</td>
</tr>
<tr>
<td>24 Track</td>
<td>0.0080 +/- 0.0005</td>
<td>0.0060 +/- 0.0005</td>
</tr>
</tbody>
</table>

B. Head outline dimensions:

C. Read gap length nominal 40µ" (12,500 FRPI Ref.)
Write gap length nominal 85µ" (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

\[ \frac{12,500 \text{ FTPI}}{4,167 \text{ FTPI} \times 100\%} \]

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.

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

\[ I_2 - I_{\text{write}} = 110\% \text{ Ref of } I_1 \]

F. Output: The peak output voltage at 12,500 FRPI and 90 k;\text{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.