Track width 20 mils

Oct 1, '58

25,000 BTU per hr. heat output

Disk Characteristics

1800 rpm (33.3 msec ≈ 32 msec)

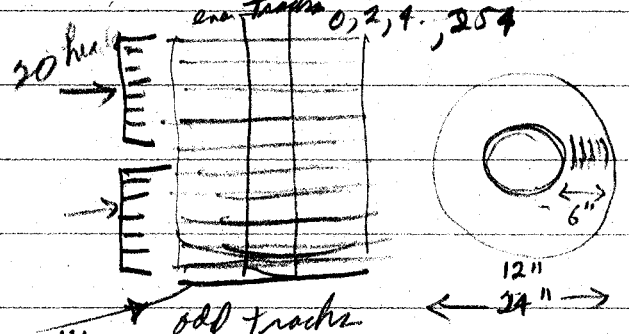
~~~~ 250 bits / inch = density

~ 3.5 μs / bit = rate

40 disks (80 faces)

2 access mechanisms (40 heads ea)

256
128 tracks per disk face
(may go to 256)



40 = 32 + 7 + 1 timing & addressing track)

2 per wd

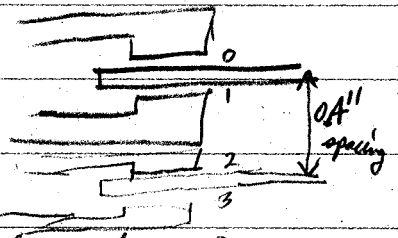
~~28~~ 2^8 tracks 256

2^{13} words / track = 4096 wds. ?

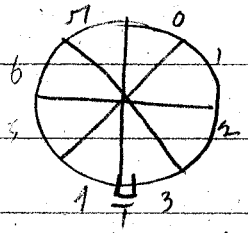
8192 (2^{13})

• • (- - - - - -) = regular RAMAC

Each aerodynamic



Each track 8 sectors:



Without Roll feature: worst access = 1 (rev)
average = ½ (rev)

~~4096~~ 8192 wds / track (may go to 8192) does (16 μs)

~~512~~ 1024 wds / sector

on Locate: track + sector 2" locations addressable.

Control Word

W.A.	COUNT

Roll feature: Track + 0 sector Count = 4096 · n is required

worst access = ⅛ (rev) average ⅙ (rev) = (2 μs)
~~~~

average transmission per word

automatic locate feature
when reading even track odd track locates to next.

heads will stay where they were.

Can read a piece of sector eg. 500 wds
but waiting

Random search

175 ms from track 0 to 254 worst case
+33
208 ms worst case for 1st access.

average ~100 ms
~16
~120. ms average random access.

Skew: 5 elements (lateral movement)

1. arm rock
2. jitter (due to air blast) on each head,
3. Torsional vibration of shaft
4. Frame vibration (between arms + frame)
5. Electronics