SHD 05   Acceptable Answer

B)   44 ksps 16 bits , 2 chans stereo

= 176 kbyte /sec   raw

= 35   kbyts /sec   compressd

3 hours   is   10,800 seconds

35 × 10,800 =   378 Mbyte

Perhaps fit into 256 Mbyte by compressing
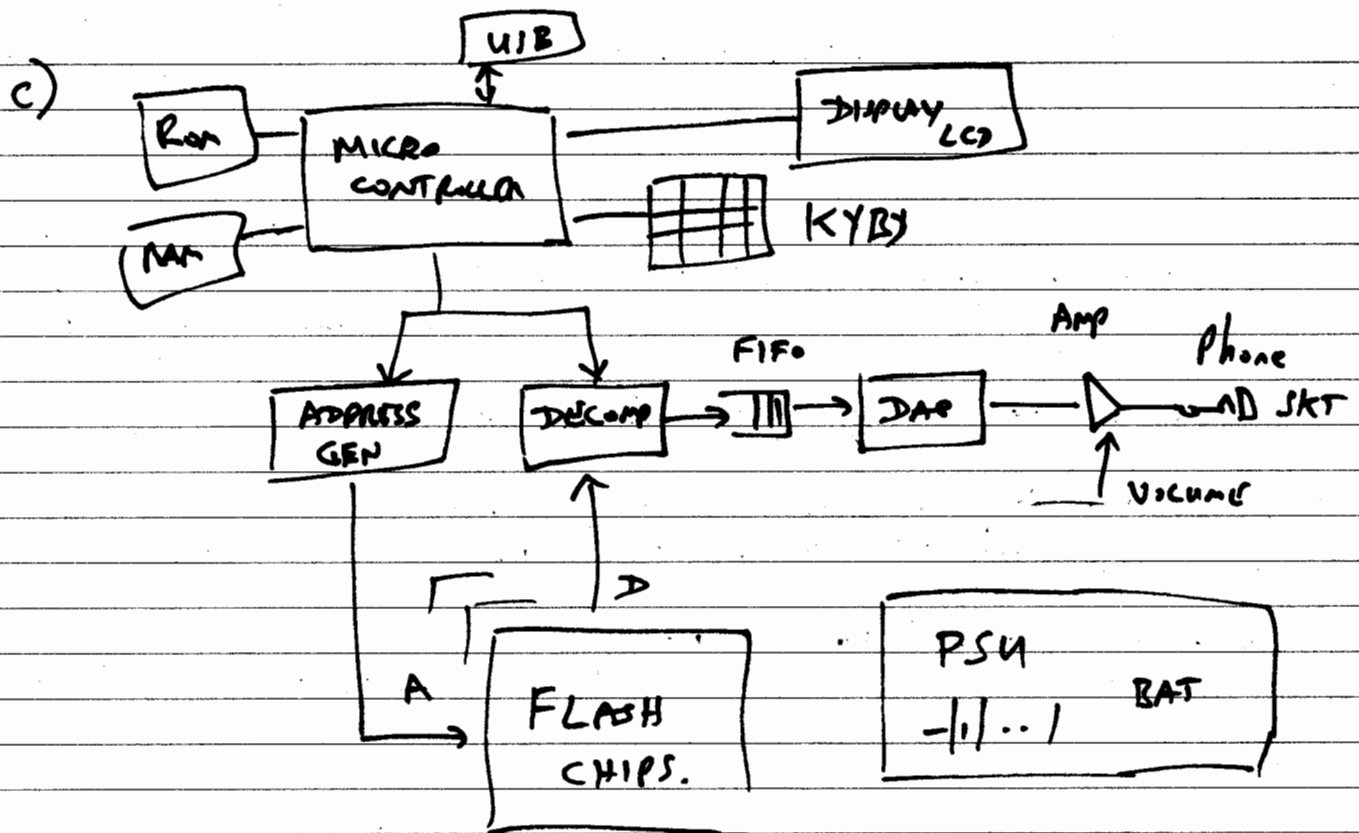a bit more.

A)   Flash   EA(P) Rom

o — electrically alterable

o — Fast read — RAM like random access
             and speed.

o — Slower write cycle ~ eg 10µs per byte
         — write 'ORs' in zeros.

o — Erased in large blocks to FF
         — a slow operation (eg 100ms)

         — Limited total n. of erase cycles.

c)

D) - one custom chip will as much on as pos.
    - FLASH would be ~~separate~~ separate, standard part.

    - Tooling needed for

        - The ASIC

        - The LCD display

        - The case work + buttons

        - The PCB.