Memory Map
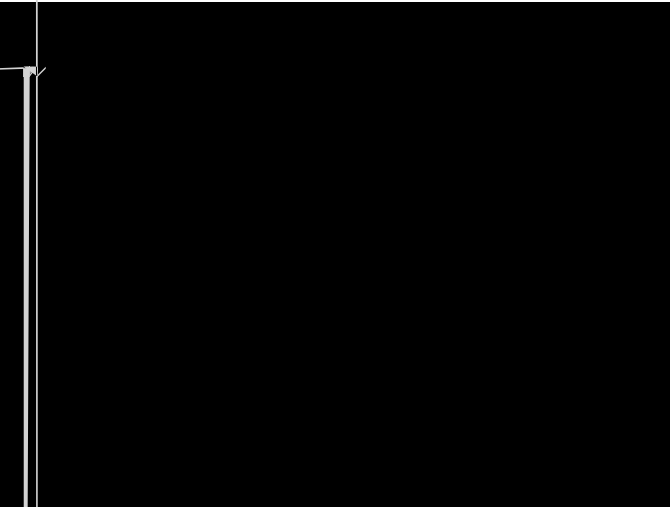
Two complementary views:

- Map from Address to Device location
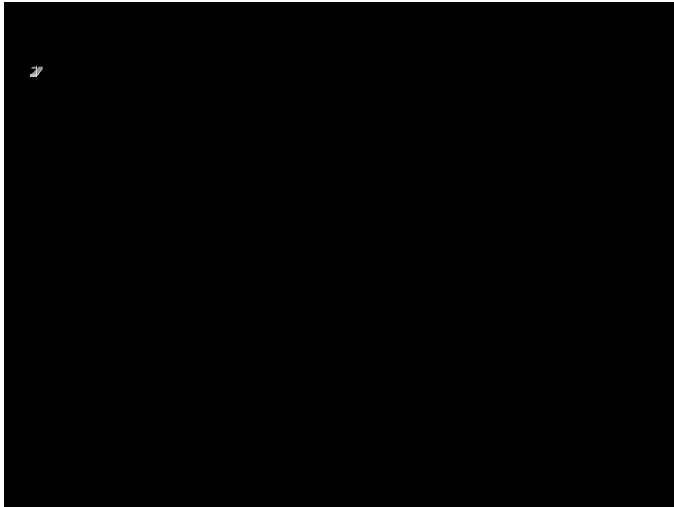- Map from Device to Address Range

Address -> Device x Location

$AMap(\$2A04C) = (RAM_1, \$204C)$

RAM₁

RAM$_1$

We view every device as having a size

Size: Device $\to$ N

DMap(d) = (Base(d), Base(d) + Size(d))

2BA4

Need to use Address to select a device and location within it.

Solution:

Device Chip Select Inputs
Some Address Bits fed to the Device
Address Strobe has vital role.

Behaviour:

At most one CS line is asserted.

If VALID ADDRESS maps to corresponding device.

Valid Address:

Contents of Address inputs, when strobe is active.

Address Decoding Logic (How)

RAM occupies $20000 - $2FFFF

How doe. address decoding do it?

Determining selected Device

-> Look for higher