|  |  |  |
| --- | --- | --- |
| Address | WriteEnable | Output |
| 0000000 - 1111111 | 0/1 | Outputs value in memory address(Address) |
| 0000000 - 1111111 | 1 | Writes value of DataIn to memory address(Address) |

RAM takes in an Address from 0 to 127 from the MuxM and a DataIn value from the datapath, and the value of DataIn is written into the address specified by Address when WriteEnable = 1, and the value at the memory address specified by Address is outputted from RAM when WriteEnable is 0 or 1. Values cannot be written into memory unless WriteEnable = 1.

(TDs are in decimal for ease of reading)