CLAIMS

What is claimed is:

1. A die for a printhead, comprising:

a plurality of fluidic actuator arrays;

a data store comprising first and second actuator columns, and a data block associated with each of the plurality of fluidic actuator arrays, each data block located in a respective one of the first and second actuator columns; and

an interface comprising a data pad and a clock pad, wherein the data blocks are configured so that a data bit value present at the data pad is loaded into a first data block corresponding to a first fluidic actuator array on a rising clock edge and loaded into a second data block corresponding to a second fluidic actuator array on a falling clock edge, with successive data bit values present on the data pad loaded to the first and second data blocks upon respective rising and falling clock edges such that prior data bits stored in the first and second data blocks are shifted to next data blocks of the first and second actuator columns, and wherein the data bit values loaded to the first and second data blocks comprise head data and tail data, with address data split between the head data and the tail data.

2. The die of claim 1, wherein circuitry to decode the loaded data bit value is split between north and south ends of the die.

3. The die of either of claims 1 or 2, wherein the interface comprises a fire pad, wherein a fire bit value at the fire pad enables a fluidic actuator in a fluidic actuator array.

4. The die of any of claims 1 to 3, comprising a plurality of memory bits, wherein each of the plurality of memory bits shares an address with the data block for the first fluidic actuator array.

5. The die of any of claims 1 to 4, wherein the interface comprises a mode pad, wherein a mode bit value at the mode pad controls a memory access mode.

6. The die of claim 5, comprising a configuration register, wherein the configuration register is written to when the mode bit value is high.

7. The die of claims 6, comprising a memory configuration register, wherein the memory configuration register is written to when a stored bit value in the configuration register is high.

8. The die of any of claims 1 to 7, wherein the first fluidic actuator array is disposed along a first side of a plurality of fluid feed holes (IFHs) and the second fluidic actuator array is disposed along a second side of the plurality of the fluid feed holes, and wherein the second fluidic actuator array is disposed so that each fluidic actuator is positioned to print between a pair of fluidic actuators in the first fluidic actuator array.

9. The die of any of claims 1 to 8, wherein the first fluidic actuator array comprises a plurality of larger fluidic actuators and the second fluidic actuator array comprises a plurality of smaller fluidic actuators, wherein a larger fluidic actuator is disposed between each a pair of smaller fluidic actuators.

10. A method for operating a die for a printhead, comprising:

placing a bit value on a data pad on the die;

raising a bit value on a clock pad on the die from a low level to a high level to load a first bit value into a first data block of a first actuator column of a data store;

placing another bit value on the data pad on the die;

lowering the bit value on the clock pad on the die from the high level to the low level to load the other bit value into a second data block of a second actuator column of a data store; and

successively loading further bit values placed on the data pad to the first and second data blocks upon respective raising and lowering of the bit value on the clock pad such that prior data bits stored in the first and second data blocks are shifted to next data blocks of the first and second actuator columns, wherein the bit values loaded to the first and second data blocks comprise head data and tail data, with address data split between the head data and the tail data.

11. The method of claim 10, comprising:

placing an address value on an address line associated with an address data block; and

identifying a fluidic actuator in a fluidic actuator array based, at least in part, on the address value.

12. The method of either of claims 11, comprising:

placing a fire value on a fire pad on the die; and

firing a fluidic actuator in a fluidic actuator array based, at least in part, on the bit value in a memory array, and the address value.

13. The method of any of claims 10 to 12, comprising:

placing a mode value on a mode pad on the die; and

loading the first bit value into a configuration register based, at least in part, on the mode value.