

A population count on the Sj mask value would yield the vector length for future use of the vector register. This pop count represents the number of valid elements in the register created by the Compress Iota function.

The VA module continuously tests the mask bits that remain to be sampled to detect when an all zeroes mask value remains. The VA controls the instruction completion time through the release signals that it sends to the JB and to the JC modules. The VA module is continuously performing an end off, zero fill, left shift of one place on the mask value. When the remaining mask value is all zeroes, the VA will send out release signals. It sends a release to the JB to release the functional unit reservation. The VA also sends a release to each of the two JC modules to release the Vector register reservation.