size	

Transpose

mode

Structure size $(S_a, S_s) = (l_a \times S_n, l_s \times S_n)$, where S_n is size of transpose unit, $l_s = \left| \frac{S_s}{S_m} \right|$, and $l_a = \left| \frac{S_a}{S_n} \right|$ Normal: without transpose

 $Transpose : AOS \rightarrow ASTA / SOA$ Reversion: $ASTA / SOA \rightarrow AOS$ $SparseConvert: COO \rightarrow ELL$

DiagonalConvert: Layout → turn 45 °

 (S_a, S_s) , where S_a is Array size, and S_s is

Stride: Layout \rightarrow get a+bi, where i=0,1,2...

 $host \subseteq device$ Direction