

Instruction category	ARM Advanced SIMD	MIPS SIMD	Power Vector Facility
Shift right/left, logical, arithmetic	16B, 8H, 4W; 2 D	16B, 8H, 4W; 2 D; Q	16B, 8H, 4W; 2 D; Q
Count leading or trailing zeros	16B, 8H, 4W; 2 D	16B, 8H, 4W; 2 D	16B, 8H, 4W; 2 D; Q
and/or/xor	Q	Q	Q
Bit insert & extract	16B, 8H, 4W; 2 D	16B, 8H, 4W; 2 D	16B, 8H, 4W; 2 D; Q
Population count		16B, 8H, 4W; 2 D	16B, 8H, 4W; 2 D; Q
Interleave even/odd, left/right		16B, 8H, 4W; 2 D	6B, 8H, 4W; 2 D
Pack even/odd		16B, 8H, 4W; 2 D	6B, 8H, 4W; 2 D
Shuffle		16B, 8H, 4W; 2 D	16B, 8H, 4W; 2 D
SPLAT		16B, 8H, 4W; 2 D	16B, 8H, 4W; 2 D

**FIGURE E.26 Summary of logical, bitwise, permute, and pack/unpack instructions, using the same format as the previous figure.** When there is a single operand the instruction applies to the entire register; for logical operations there is no difference. Interleave puts together the elements (all even, odd, leftmost or rightmost) from two different registers to create one value; it can be used for unpacking. Pack moves the even or odd elements from two different registers to the leftmost and rightmost halves of the result. Shuffle creates a from two registers based on a mask that selects which source for each item. SPLAT copies a value into each item in a register.