





## Instruction Field Names

Field Name	Description
af <sub>3</sub>	application register source/target
b <sub>1</sub> , b <sub>2</sub>	branch register source/target
btype	branch type opcode extension
c	complement compare relation opcode extension
ccount <sub>5c</sub>	multimedia shift left complemented shift count immediate
count <sub>5b</sub> , count <sub>5d</sub>	multimedia shift right/shift right pair shift count immediate
cp <sub>os</sub> <sub>x</sub>	deposit complemented bit position immediate
cr <sub>3</sub>	control register source/target
cl <sub>2d</sub>	multimedia multiply shift/shift and add shift count immediate
d	branch cache deallocation hint opcode extension
f <sub>n</sub>	floating-point register source/target
fc <sub>2</sub> , fclass <sub>7c</sub>	floating-point class immediate
hint	memory reference hint opcode extension
i, i <sub>2b</sub> , i <sub>2d</sub> , imm <sub>x</sub>	immediate of length 1, 2, or x
ih	branch importance hint opcode extension
len <sub>4d</sub> , len <sub>6d</sub>	extract/deposit length immediate
m	memory reference post-modify opcode extension
mask <sub>x</sub>	predicate immediate mask
mbt <sub>4c</sub> , mht <sub>6c</sub>	multimedia mux1/mux2 immediate
p	sequential prefetch hint opcode extension
p <sub>1</sub> , p <sub>2</sub>	predicate register target
pos <sub>6a</sub>	test bit/extract bit position immediate
q	floating-point reciprocal/reciprocal square-root opcode extension
qp	qualifying predicate register source
r <sub>n</sub>	general register source/target
s	immediate sign bit
sf	floating-point status field opcode extension

### Instruction Field Names (Continued)

Field Name	Description
sof, sol, sor	alloc size of frame, size of locals, size of rotating immediates
$t_3, t_0$	compare type opcode extension
$t_{2n}, timm_x$	branch predict lag immediate
$v_x$	reserved opcode extension field
wh	branch whether hint opcode extension
$x, x_n$	opcode extension of length 1 or $n$
y	extract/deposit/test bit/test NaT opcode extension
$z_{a1}, z_b$	multimedia operand size opcode extension

### Special Instruction Notations

Notation	Description
e	instruction ends an instruction group when taken, or for Reserved if PR[qp] is 1 (cyan) encodings and non-branch instructions with a qualifying predicate, when its PR[qp] is 1, or for Reserved (brown) encodings, unconditionally
f	instruction must be the first instruction in an instruction group and must either be in instruction slot 0 or in instruction slot 1 of a template having a stop after slot 0
i	instruction is allowed in the I slot of an MLI template
l	instruction must be the last in an instruction group
p	privileged instruction
t	instruction is only allowed in instruction slot 2