

Specified Loop Unrolling			Resource Constraints	
Benchmark	Unrolling	DFG Size	RAMB36	140
MM	$1 \times 5 \times 100$	750	DSP48	220
FIR	50×50	2500	LUT	53200
SE	$16 \times 16 \times 3 \times 3$	9720	FF	53200
KM	$125 \times 4 \times 2$	5768		

Supported Operation Set		
Type	Opcode	Expression
MULADD	0001	$\text{Dst} = \text{Src0} \times \text{Src1} + \text{Src2}$
MULSUB	0010	$\text{Dst} = \text{Src0} \times \text{Src1} - \text{Src2}$
ADDADD	0011	$\text{Dst} = \text{Src0} + \text{Src1} + \text{Src2}$
ADDSUB	0100	$\text{Dst} = \text{Src0} + \text{Src1} - \text{Src2}$
SUBSUB	0101	$\text{Dst} = \text{Src0} - \text{Src1} - \text{Src2}$
PHI	0110	$\text{Dst} = \text{Src0} ? \text{Src1} : \text{Src2}$
RSFAND	0111	$\text{Dst} = (\text{Src0} \gg \text{Src1}) \& \text{Src2}$
LSFADD	1000	$\text{Dst} = (\text{Src0} \ll \text{Src1}) + \text{Src2}$
ABS	1001	$\text{Dst} = \text{ABS}(\text{Src0})$
GT	1010	$\text{Dst} = (\text{Src0} > \text{Src1}) ? 1 : 0$
LET	1011	$\text{Dst} = (\text{Src0} \leq \text{Src1}) ? 1 : 0$
ANDAND	1100	$\text{Dst} = (\text{Src0} \& \text{Src1}) \& \text{Src2}$