20. Vector Instruction Listing

Integer					Integer				FP			
funct3					funct3				funct3			
OPIVV	V				OP-MVV	V			OPFVV	V		
OPIVX		X			OP-MVX		X		OPFVF		F	
OPIVI			I									

funct6					funct6				funct6			
000000	V	X	I	vadd	000000	V		vred-sum	000000	V	F	vfadd
000001					000001	V		vredand	000001	V		vfred-sum
000010	V	X		vsub	000010	V		vredor	000010	V	F	vfsub
000011		X	I	vrsub	000011	V		vredxor	000011	V		vfredo-sum
000100	V	X		vminu	000100	V		vred-minu	000100	V	F	vfmin
000101	V	X		vmin	000101	V		vredmin	000101	V		vfred-min
000110	V	X		vmaxu	000110	V		vred-maxu	000110	V	F	vfmax
000111	V	X		vmax	000111	V		vred-max	000111	V		vfred-max
001000					001000				001000	V	F	vfsgnj
001001	V	X	I	vand	001001				001001	V	F	vfsgnjn
001010	V	X	I	vor	001010				001010	V	F	vfsgnjx
001011	V	X	I	vxor	001011				001011			
001100	V	X	I	vrgath-er	001100	V		vext.x.v	001100	V		vfmv.f.s
001101					001101		X	vmv.s.x	001101		F	vfmv.s.f
001110		X	I	vslide-up	001110		X	vs-lide1up	001110			
001111		X	I	vslide-down	001111		X	vslide1-down	001111			

funct6					funct6				funct6			
010000	V	X	I	vadc	010000				010000			
010001	V	X	I	vmadc	010001				010001			
010010	V	X		vsbc	010010				010010			
010011	V	X		vmsbc	010011				010011			
010100					010100	V		vmpopc	010100			
010101					010101	V		vmfirst	010101			
010110					010110	V		VMU-NARY0	010110			
010111	V	X	I	vmerge/vmv	010111	V		vcom-press	010111		F	vfmerge.vf/vfmv
011000	V	X	I	vmseq	011000	V		vmand-not	011000	V	F	vmfeq
011001	V	X	I	vmsne	011001	V		vmand	011001	V	F	vmfle
011010	V	X		vmsltu	011010	V		vmor	011010	V	F	vmford
011011	V	X		vmslt	011011	V		vmxor	011011	V	F	vmflt
011100	V	X	I	vmsleu	011100	V		vmornot	011100	V	F	vmfne
011101	V	X	I	vmsle	011101	V		vmnand	011101		F	vmfgt
011110		X	I	vmsgtu	011110	V		vmnor	011110			
011111		X	I	vmsgt	011111	V		vmxnor	011111		F	vmfge

funct6					funct6				funct6			
100000	V	X	I	vsaddu	100000	V	X	vdivu	100000	V	F	vfdiv
100001	V	X	I	vsadd	100001	V	X	vdiv	100001		F	vfrdiv
100010	V	X		vssubu	100010	V	X	vremu	100010	V		VFU-NARY0
100011	V	X		vssub	100011	V	X	vrem	100011	V		VFU-NARY1
100100	V	X	I	vaadd	100100	V	X	vmulhu	100100	V	F	vfmul
100101	V	X	I	vsll	100101	V	X	vmul	100101			
100110	V	X		vasub	100110	V	X	vmulhsu	100110			
100111	V	X		vsmul	100111	V	X	vmulh	100111		F	vfrsub
101000	V	X	I	vsrl	101000				101000	V	F	vfmadd
101001	V	X	I	vsra	101001	V	X	vmadd	101001	V	F	vfn-madd
101010	V	X	I	vssrl	101010				101010	V	F	vfmsub
101011	V	X	I	vssra	101011	V	X	vnmsub	101011	V	F	vfnm-sub
101100	V	X	I	vnsrl	101100				101100	V	F	vfmacc
101101	V	X	I	vnsra	101101	V	X	vmacc	101101	V	F	vfn-macc
101110	V	X	I	vnclipu	101110				101110	V	F	vfmsac
101111	V	X	I	vnclip	101111	V	X	vnmsac	101111	V	F	vfnm-sac

funct6					funct6				funct6			
110000	V			vwred-sumu	110000	V	X	vwaddu	110000	V	F	vfwadd
110001	V			vwred-sum	110001	V	X	vwadd	110001	V		vfwredsu
110010					110010	V	X	vwsubu	110010	V	F	vfwsub
110011					110011	V	X	vwsub	110011	V		vfwre-dosum
110100					110100	V	X	vwad-du.w	110100	V	F	vfwad-d.w
110101					110101	V	X	vwad-d.w	110101			
110110					110110	V	X	vwsub-u.w	110110	V	F	vfw-sub.w
110111					110111	V	X	vwsub.w	110111			
111000	V			vdotu	111000	V	X	vwmulu	111000	V	F	vfwmul
111001	V			vdot	111001				111001	V		vfdot
111010					111010	V	X	vwmul-su	111010			
111011					111011	V	X	vwmul	111011			
111100	V	X		vws-maccu	111100	V	X	vwmac-cu	111100	V	F	vfw-macc
111101	V	X		vws-macc	111101	V	X	vwmacc	111101	V	F	vfwn-macc
111110	V	X		vws-maccsu	111110	V	X	vw-maccsu	111110	V	F	vfwm-sac
111111		X		vws-maccus	111111		X	vwmac-cus	111111	V	F	vfwn-msac