

KV3 VLIW V1 Core Instruction Set Summary

BCU

ALIGN0	Align Coprocessor Registers into Octuple Word
ALIGNV	Align Coprocessor Registers
AWAIT	Wait for any event or interrupt.
BARRIER	Instruction Pipeline Barrier
CALL	Call Subroutine PC-Relative
CB	Conditional Branch PC-Relative
ERROP	Error Opcode
GET	Get System Register
GOTO	Branch Unconditional PC-Relative
ICALL	Indirect Call from Register
IGET	Indirect Get System Register
IGOTO	Indirect Branch from Register
LOOPDO	Hardware Loop setup and Do execute
RET	Return from Call
RFE	Return from Exception
RSWAP	General and System Register Swap
SCALL	System Call
SET	Set System Register
SLEEP	Wait for an eligible interrupt.
STOP	Wait for power controller wake-up.
SYNCGROUP	Synchronize Group of Cores
TLBDINVAL	Invalidate Data Micro-TLB.
TLBIINVAL	Invalidate Instruction Micro-TLB.
TLBPROBE	Probe TLB
TLBREAD	Read TLB Entry
TLBWRITE	TLB Entry Write
WAITIT	Wait for Interrupt
WFXL	Effects on Least Significant Word of System Register
WFXM	Word Effects on Most Significant Word of System Register

LSU

ACSWAPD	Atomic Compare and Swap Double Word
ACSWAPW	Atomic Compare and Swap Word
ALADDD	Atomic Load and Add Double Word
ALADDW	Atomic Load and Add Word
ALCLRD	Atomic Load and Clear Double Word
ALCLRW	Atomic Load and Clear Word
COPYO	Copy Octuple Word
D1INVAL	Data Cache 1 Invalidate

DINVALL	Data Cache 1 Invalidate Line
DTOCHL	Data Cache 1 Touch Line
DZEROL	Data Cache 1 Zero Line
FENCE	Memory Fence
I1INVAL	Instruction Cache 1 Invalidate
I1INVALS	Instruction Cache 1 Invalidate Set
LBS	Load Byte Sign Extended
LBZ	Load Byte Zero Extended
LD	Load Double Word
LHS	Load Half Word Sign Extended
LHZ	Load Half Word Zero Extended
LO	Load Octuple Word
LQ	Load Quadruple Word
LWS	Load Word Sign Extended
LWZ	Load Word Zero Extended
SB	Store Byte
SD	Store Double Word
SH	Store Half Word
SO	Store Octuple Word
SQ	Store Quadruple Word
SW	Store Word
XLO	Extension Load Octuple Word Uncached
XSO	Extension Store Octuple Word

ALU

ABDD	Absolute Difference of Double Words
ABDHQ	Absolute Difference Half Words Quadruple
ABDW	Absolute Difference of Words
ABDWP	Absolute Difference Words Packed
ADDCD	Add Double Word to Double Word with Carry
ADDCD.I	Add Double Word to Double Word with Carry Initial
ADDD	Add Double Word to Double Word
ADDHCP.C	Add Conjugate Half Word Complex Pair
ADDHQ	Add Half Words Quadruple
ADDSD	Add Saturated Double Words
ADDSHQ	Add Saturated Half Words Quadruple
ADDSW	Add Saturated Words
ADDSWP	Add Saturated Words Packed
ADDUWD	Add Unsigned Word to Double Word
ADDW	Add Word to Word
ADDWC.C	Add Conjugate Word Complex
ADDWD	Add Word to Double Word
ADDWP	Add Words Packed

ADDX16D	Add Double Word to Double Word Times 16
ADDX16HQ	Add Integer to Integer Times 16 Half Words Quadruple
ADDX16UWD	Add Unsigned Word Times 16 to Double Word
ADDX16W	Add Word to Word Times 16
ADDX16WD	Add Word Times 16 to Double Word
ADDX16WP	Add Integer to Integer Times 16 Words Packed
ADDX2D	Add Double Word to Double Word Times 2
ADDX2HQ	Add Integer to Integer Times 2 Half Words Quadruple
ADDX2UWD	Add Unsigned Word Times 2 to Double Word
ADDX2W	Add Word to Word Times 2
ADDX2WD	Add Word Times 2 to Double Word
ADDX2WP	Add Integer to Integer Times 2 Words Packed
ADDX4D	Add Double Word to Double Word Times 4
ADDX4HQ	Add Integer to Integer Times 4 Half Words Quadruple
ADDX4UWD	Add Unsigned Word Times 4 to Double Word
ADDX4W	Add Word to Word Times 4
ADDX4WD	Add Word Times 4 to Double Word
ADDX4WP	Add Integer to Integer Times 4 Words Packed
ADDX8D	Add Double Word to Double Word Times 8
ADDX8HQ	Add Integer to Integer Times 8 Half Words Quadruple
ADDX8UWD	Add Unsigned Word Times 8 to Double Word
ADDX8W	Add Word to Word Times 8
ADDX8WD	Add Word Times 8 to Double Word
ADDX8WP	Add Integer to Integer Times 8 Words Packed
ANDD	Bitwise And Between Double Words
ANDND	Bitwise And with Not Operand Between Double Words
ANDNW	Bitwise And with Not Operand Between Words
ANDW	Bitwise And Between Words
AVGHQ	Average of Half Words Quadruple
AVGRHQ	Average Rounded of Half Words Quadruple
AVGRUHQ	Average Rounded Unsigned of Half Words Quadruple
AVGRUW	Average Rounded of Unsigned Words
AVGRUWP	Average Rounded Unsigned of Words Packed
AVGRW	Average Rounded of Words
AVGRWP	Average Rounded of Words Packed
AVGUHQ	Average Unsigned of Half Words Quadruple
AVGUW	Average of Unsigned Words
AVGUWP	Average Unsigned of Words Packed
AVGW	Average of Words
AVGWP	Average of Words Packed
CBSD	Count Bit Set of Double Word
CBSW	Count Bit Set of Word
CBSWP	Count Bit Sets of Word Pair
CLRF	Clear Field

CLSD Count Leading Sign of Double Word
CLSW Count Leading Sign of Word
CLSWP Count Leading Signs of Word Pair
CLZD Count Leading Zero of Double Word
CLZW Count Leading Zero of Word
CLZWP Count Leading Zeroes of Word Pair
CMOVED Conditional Move Double Word
CMOVEHQ Conditional Move Half Words Quadruple
CMOVEWP Conditional Move Words Packed
COMPD Compare Double Words
COMPNHQ Compare Negate Half Words Quadruple
COMPNWP Compare Negate Word Pair
COMPUWD Compare Unsigned Word to Double Word
COMPW Compare Words
COMPWD Compare Word to Double Word
CTZD Count Trailing Zero of Double Word
CTZW Count Trailing Zero of Word
CTZWP Count Trailing Zeroes of Word Pair
EORD Bitwise Exclusive Or Between Double Words
EORW Bitwise Exclusive Or Between Words
EXTFS ... Extract Bit Field and Sign Extend to Double Word
EXTFZ ... Extract Bit Field and Zero Extend to Double Word
INSF Insert Bit Field into Word
IORD Bitwise Inclusive Or Between Double Words
IORNW Bitwise Inclusive Or with Not Operand Between Double Words
IORNW Words
IORW Bitwise Inclusive Or Between Words
LANDD Logical And of Double Words
LANDHQ Logical And of Half Words Quadruple
LANDW Logical And of Words
LANDWP Logical And of Words Packed
LIORD Logical Or of Double Words
LIORHQ Logical Or of Half Words Quadruple
LIORW Logical Or of Words
LIORWP Logical Or of Words Packed
LNANDD Logical Not And of Double Words
LNANDHQ Logical Not And of Half Words Quadruple
LNANDW Logical Not And of Words
LNANDWP Logical Not And of Words Packed
LNIORD Logical Not Or of Double Words
LNIORHQ Logical Not Or of Half Words Quadruple
LNIORW Logical Not Or of Words
LNIORWP Logical Not Or of Words Packed

MAKE Make Word from Immediate
MAXD Maximum of Double Words
MAXHQ Maximum of Half Words Quadruple
MAXUD Maximum of Unsigned Double Words
MAXUHQ Maximum of Unsigned Half Words Quadruple
MAXUW Maximum of Unsigned Words
MAXUWP Maximum of Unsigned Words Packed
MAXW Maximum of Words
MAXWP Maximum of Words Packed
MIND Minimum of Double Words
MINHQ Minimum of Half Words Quadruple
MINUD Minimum of Unsigned Double Words
MINUHQ Minimum of Unsigned Half Words Quadruple
MINUW Minimum of Unsigned Words
MINUWP Minimum of Unsigned Words Packed
MINW Minimum of Words
MINWP Minimum of Words Packed
MOVETQ Move To Coprocessor Quadruple Word
NANDD Bitwise Not And Between Double Words
NANDW Bitwise Not And Between Words
NEORD Bitwise Not Exclusive Or Between Double Words
NEORW Bitwise Not Exclusive Or Between Words
NIORD Bitwise Not Inclusive Or Between Double Words
NIORW Bitwise Not Inclusive Or Between Words
NOP No Operation
PCREL PC-Relative
ROLW Rotate Left Word
ROLWPS Rotate Left Word Pair by Scalar
RORW Rotate Right Word
RORWPS Rotate Right Word Pair by Scalar
SATD Saturate Double Word
SBFCD .. Subtract Double Word from Double Word with Carry
SBFCD.I Subtract Double Word from Double Word with Carry Initial
SBFD Subtract Double Word From Double Word
SBFHCP.C Subtract Conjugate Half Word Complex Pair
SBFHQ Subtract Half Words Quadruple
SBFSD Subtract Saturated Double Words
SBFSHQ Subtract Saturated Half Words Quadruple
SBFSW Subtract Saturated Words
SBFSWP Subtract Saturated Words Packed
SBFUWD Subtract Unsigned Word from Double Word
SBFW Subtract Word from Word
SBFWC.C Subtract Conjugate Word Complex
SBFWD Subtract Word from Double Word

SBFWP Subtract Words Packed
SBFX16D . Subtract Double Word Times 16 from Double Word
SBFX16HQ ... Subtract Integer to Integer Times 16 Half Words Quadruple
SBFX16UWD .. Subtract Unsigned Word Times 16 from Double Word
SBFX16W Subtract Word Times 16 from Word
SBFX16WD Subtract Word Times 16 from Double Word
SBFX16WP Subtract Integer to Integer Times 16 Words Packed
SBFX2D ... Subtract Double Word Times 2 from Double Word
SBFX2HQ Subtract Integer to Integer Times 2 Half Words Quadruple
SBFX2UWD Subtract Unsigned Word Times 2 from Double Word
SBFX2W Subtract Word Times 2 from Word
SBFX2WD Subtract Word Times 2 from Double Word
SBFX2WP ... Subtract Integer to Integer Times 2 Words Packed
SBFX4D ... Subtract Double Word Times 4 from Double Word
SBFX4HQ Subtract Integer to Integer Times 4 Half Words Quadruple
SBFX4UWD Subtract Unsigned Word Times 4 from Double Word
SBFX4W Subtract Word Times 4 from Word
SBFX4WD Subtract Word Times 4 from Double Word
SBFX4WP ... Subtract Integer to Integer Times 4 Words Packed
SBFX8D ... Subtract Double Word Times 8 from Double Word
SBFX8HQ Subtract Integer to Integer Times 8 Half Words Quadruple
SBFX8UWD Subtract Unsigned Word Times 8 from Double Word
SBFX8W Subtract Word Times 8 from Word
SBFX8WD Subtract Word Times 8 from Double Word
SBFX8WP ... Subtract Integer to Integer Times 8 Words Packed
SBMM8D Swapped Bit Matrix Multiplication 8×8
SBMMT8D . Swapped Bit Matrix Multiplication Transposed 8×8
SLLD Shift Left Logical Double Word
SLLHQS ... Shift Left Logical Half Word Quadruple by Scalar
SLLW Shift Left Logical Word
SLLWPS Shift Left Logical Word Pair by Scalar
SLSD Shift Left Saturated Double Word
SLSHQS .. Shift Left Saturated Half Word Quadruple by Scalar
SLSW Shift Left Saturated Word
SLSWPS Shift Left Saturated Word Pair by Scalar
SRAD Shift Right Arithmetic Double Word
SRAHQS Shift Right Arithmetic Half Word Quadruple by Scalar
SRAW Shift Right Arithmetic Word
SRAWPS Shift Right Arithmetic Word Pair by Scalar
SRLD Shift Right Logical Double Word

SRLHQS ...Shift Right Logical Half Word Quadruple by Scalar
SRLW Shift Right Logical Word
SRLWPS Shift Right Logical Word Pair by Scalar
SRSDShift Right Symmetric Double Word
SRSHQS Shift Right Symmetric Half Word Quadruple by Scalar
SRSW Shift Right Symmetric Word
SRSWPS Shift Right Symmetric Word Pair by Scalar
STSUD Subtract, Test and Shift Unsigned Double Words
STSUW Subtract, Test and Shift Unsigned Word
SXLBHQ Sign Extend Least Significant Bytes to Half Word Quadruple
SXLHWP Sign Extend Least Significant Half Words to Word Pair
SXMBHQSign Extend Most Significant Bytes to Half Word Quadruple
SXMHWP Sign Extend Most Significant Half Words to Word Pair

MAU

CMULDT Carryless Multiply Double Words to Tetra Word
CMULGHXDT .. Carryless Multiply Galois High and Xor Double Words to Tetra Word
CMULGLXDT ... Carryless Multiply Galois Low and Xor Double Words to Tetra Word
CMULGMXDT .Carryless Multiply Galois Middle and Xor Double Words to Tetra Word
CMULXDT .. Carryless Multiply and Xor Double Words to Tetra Word
COPYQ Copy Quadruple Word
CRCBELLWCyclic Redundancy Check Big-Endian Least Significant with Least Significant Words
CRCBELMWCyclic Redundancy Check Big-Endian Least Significant with Most Significant Words
CRCLELLWCyclic Redundancy Check Little-Endian Least Significant with Least Significant Words
CRCLELMWCyclic Redundancy Check Little-Endian Least Significant with Most Significant Words
DOT2SUWD Dot product of 2x Signed by Unsigned Word Vectors into Double Word
DOT2SUWDP Dot products of 2x Signed by Unsigned Word Vectors into Double Word Pair
DOT2UWDDot product of 2x Unsigned Word Vectors into Double Word
DOT2UWDPDot products of 2x Unsigned Word Vectors into Double Word Pair

DOT2W Dot product of 2x Word Vectors into Word
DOT2WD ... Dot product of 2x Word Vectors into Double Word
DOT2WDP . Dot products of 2x Word Vectors into Double Word Pair
DOT2WZPDot products of 2x Word Vectors into Word Zero Extended Pair
MADDD Multiply-Add Double Word
MADDDT Multiply-Add Double to Tetra Word
MADDHQMultiply-Add Half Word Quadruple
MADDHWQ Multiply-Add Half Word to Word Quadruple
MADDSUDT . Multiply-Add Signed by Unsigned Double to Tetra Word
MADDSUHWQ .. Multiply-Add Signed by Unsigned Half Word to Word Quadruple
MADDSUWD Multiply-Add Signed by Unsigned Words to Double Word
MADDSUWDPMultiply-Add Signed by Unsigned Words to Double Word Pair
MADDUDT Multiply-Add Unsigned Double to Tetra Word
MADDUHWQ Multiply-Add Unsigned Half Word to Word Quadruple
MADDUWD Multiply-Add Unsigned Words to Double Word
MADDUWDP Multiply-Add Unsigned Words to Double Word Pair
MADDUZDT Multiply-Add Unsigned Double to Tetra Word
MADDW Multiply-Add Words
MADDWDMultiply-Add Words to Double Word
MADDWDP Multiply-Add Words to Double Word Pair
MADDWP Multiply-Add Word Pair
MM212W Matrix Multiply 2x1x2 Word Quadruple
MMA212W Matrix Multiply-Add 2x1x2 Word
MMS212W Matrix Multiply-Subtract 2x1x2 Word
MSBFD Multiply-Subtract Double Word
MSBFDTMultiply-Subtract Double to Tetra Word
MSBFHQ Multiply-Subtract Half Word Quadruple
MSBFHWQ . Multiply-Subtract Half Word from Word Quadruple
MSBFSUDT ...Multiply-Subtract Signed by Unsigned Double to Tetra Word
MSBFSUHWQ . Multiply-Subtract Signed by Unsigned Half Word from Word Quadruple
MSBFSUWD ... Multiply-Subtract Signed by Unsigned Words to Double Word
MSBFSUWDP .. Multiply-Subtract Signed by Unsigned Words to Double Word Pair
MSBFUDT .. Multiply-Subtract Unsigned Double to Tetra Word

MSBFUHWQ . Multiply-Subtract Unsigned Half Word from Word Quadruple
MSBFUWD . Multiply-Subtract Unsigned Words to Double Word
MSBFUWDP Multiply-Subtract Unsigned Words to Double Word Pair
MSBFUZDT .. Multiply-Subtract Unsigned Double to Quadruple Word
MSBFW Multiply-Subtract Words
MSBFW Multiply-Subtract Words to Double Word
MSBFWDPMultiply-Subtract Words to Double Word Pair
MSBFWPMultiply-Subtract Word Pair
MULD Multiply Double Word
MULDTMultiply Double Word to Tetra Word
MULHQ Multiply Half Word Quadruple
MULHWQMultiply Half Word to Word Quadruple
MULSUDT Multiply Signed by Unsigned Double Words to Tetra Word
MULSUHWQ .. Multiply Signed by Unsigned Half Word to Word Quadruple
MULSUWD Multiply Signed by Unsigned Words to Double Word
MULSUWDP Multiply Signed by Unsigned Words to Double Word Pair
MULUDT Multiply Unsigned Double Words to Tetra Word
MULUHWQ ... Multiply Unsigned Half Word to Word Quadruple
MULUWD Multiply Unsigned Words to Double Word
MULUWDP Multiply Unsigned Words to Double Word Pair
MULW Multiply Words
MULWC Multiply Word Complex
MULWC.C Multiply Word Complex Conjugate
MULWD Multiply Words to Double Word
MULWDCMultiply Word Complex to Double Word Complex
MULWDC.C Multiply Conjugate Word Complex to Double Word Complex
MULWDPMultiply Words to Double Word Pair
MULWPMultiply Word Pair
MULWQ Multiply Word Quadruple

FPU

FABSD Floating-Point Absolute Value Double Word
FABSHQ .. Floating-Point Absolute Value Half Word Quadruple
FABSW Floating-Point Absolute Value Word
FABSWP Floating-Point Absolute Value Word Pair
FADDD Floating-Point Add Double Word

FADDDC.CFloating-Point Add Double Word Complex Conjugate
FADDDPFloating-Point Add Double Word Pair
FADDHQFloating-Point Add Half Word Quadruple
FADDWFloating-Point Add Words
FADDWC.CFloating-Point Add Word Complex Conjugate
FADDWCP.C Floating-Point Add Word Complex Pair Conjugate
FADDWPFloating-Point Add Word Pair
FADDWQFloating-Point Add Word Quadruple
FCDIVDFloating-Point Cases for Division Double Word
FCDIVWFloating-Point Cases for Word Division
FCDIVWPFloating-Point Cases for Division Word Pair
FCOMPDFloating-Point Compare Double
FCOMPNHQFloating-Point Compare Negate Half Word Quadruple
FCOMPNWPFloating-Point Compare Negate Word Pair
FCOMPWFloating-Point Compare Single
FDOT2WFloating-Point Dot Product x2 Word
FDOT2WD Floating-Point Dot Product x2 Word to Double Word
FDOT2WDPFloating-Point Dot Product x2 Word to Double Word Pair
FDOT2WZP Floating-Point Dot Product x2 Word Zero Extended Pair
FFMADFloating-Point Fused Multiply-Add Double
FFMAHQFloating-Point Fused Multiply-Add Half Word Quadruple
FFMAHWFloating-Point Fused Multiply-Add Half Words to Word
FFMAHWQ ...Floating-Point Fused Multiply-Add Half Words to Word Quadruple
FFMAWFloating-Point Fused Multiply-Add Words
FFMAWD ..Floating-Point Fused Multiply-Add Words to Double Word
FFMAWDP Floating-Point Fused Multiply-Add Words to Double Word Pair
FFMAWPFloating-Point Fused Multiply-Add Word Pair
FFMSDFloating-Point Fused Multiply-Subtract Double
FFMSHQ ...Floating-Point Fused Multiply-Subtract Half Word Quadruple
FFMSHW Floating-Point Fused Multiply-Subtract Half Words to Word
FFMSHWQ ..Floating-Point Fused Multiply-Subtract Half Words to Word Quadruple
FFMSWFloating-Point Fused Multiply-Subtract Words

FFMSWD Floating-Point Fused Multiply-Subtract Words to Double Word
FFMSWDP ... Floating-Point Fused Multiply-Subtract Words to Double Word Pair
FFMSWP ... Floating-Point Fused Multiply-Subtract Word Pair
FIXEDDFloating Point Conversion to Fixed-Point Double
FIXEDUD .. Floating Point Conversion to Unsigned Fixed-Point Double
FIXEDUW .. Floating Point Conversion to Unsigned Fixed-Point
FIXEDUWP .Floating Point Conversion to Unsigned Fixed-Point Word Pair
FIXEDW Floating Point Conversion to Fixed-Point
FIXEDWP .Floating Point Conversion to Fixed-Point Word Pair
FLOATD ...Floating Point Conversion from Fixed-Point Double
FLOATUD Floating Point Conversion from Unsigned Fixed-Point Double
FLOATUW Floating Point Conversion from Unsigned Fixed-Point
FLOATUWP Floating Point Conversion from Unsigned Fixed-Point Word Pair
FLOATW Floating Point Conversion from Fixed-Point
FLOATWP ... Floating Point Conversion from Fixed-Point Word Pair
FMAXD Floating-Point Maximum Double Word
FMAXHQ Floating-Point Maximum Half Word Quadruple
FMAXW Floating-Point Maximum Word
FMAXWPFloating-Point Maximum Word Pair
FMINDFloating-Point Minimum Double Word
FMINHQ Floating-Point Minimum Half Word Quadruple
FMINW Floating-Point Minimum Word
FMINWP Floating-Point Minimum Word Pair
FMM212W Floating-Point Matrix Multiply 2x1x2 Word Quadruple
FMMA212W .. Floating-Point Matrix Multiply 2x1x2 Add Word Quadruple
FMMS212W Floating-Point Matrix Multiply 2x1x2 Subtract Word Quadruple
FMULDFloating-Point Multiply Double Word
FMULHQ Floating-Point Multiply Half Word Quadruple
FMULHW Floating-Point Multiply Half Words to Word
FMULHWQ Floating-Point Multiply Half Word to Word Quadruple
FMULW Floating-Point Multiply Words
FMULWC Floating-Point Multiply Word Complex
FMULWC.C . Floating-Point Multiply Word Complex Conjugate
FMULWD Floating-Point Multiply Words to Double Word

FMULWDC ... Floating-Point Multiply Word to Double Complex
FMULWDC.C Floating-Point Multiply Conjugate Word to Double Complex
FMULWDP . Floating-Point Multiply Word to Double Word Pair
FMULWP Floating-Point Multiply Word Pair
FMULWQ Floating-Point Multiply Word Quadruple
FNARROWDW Floating Point Narrow Double Word to Word
FNARROWDWP Floating Point Narrow Double to Word Pair
FNARROWWH Floating Point Narrow Word to Half Word
FNARROWWHQ Floating Point Narrow Word to Half Word Quadruple
FNEGd Floating-Point Negate Double Word
FNEGHQ Floating-Point Negate Half Word Quadruple
FNEGW Floating-Point Negate Word
FNEGWP Floating-Point Negate Word Pair
FRECW Floating-Point Reciprocal of Word
FRSRW Floating-Point Reciprocal of Square Root Word
FSBFD Floating-Point Subtract From Double Word
FSBFDC.C Floating-Point Subtract From Double Word Complex Conjugate
FSBFDP ... Floating-Point Subtract Word to Double Word Pair
FSBFHQ .. Floating-Point Subtract From Half Word Quadruple
FSBFW Floating-Point Subtract From Words
FSBFWC.C Floating-Point Subtract From Word Complex Conjugate
FSBFWCP.C Floating-Point Subtract From Word Complex Pair Conjugate
FSBFWP Floating-Point Subtract From Word Pair
FSBFWQ Floating-Point Subtract From Word Quadruple
FSDIVD Floating-Point Seed for Division Double Word
FSDIVW Floating-Point Seed for Word Division
FSDIVWP Floating-Point Seed for Division Word Pair
FSRECD Floating-Point Seed for Reciprocal Double Word
FSRECW Floating-Point Seed for Reciprocal Word
FSRECWP ... Floating-Point Seed for Reciprocal on Word Pair
FSRSRD Floating-Point Seed for Reciprocal Square Root Double Word
FSRSRW Floating-Point Seed for Reciprocal Square Root
FSRSRW .. Floating-Point Seed for Reciprocal Square Root on Word Pair
FWIDENLHW Floating Point Widen Least Significant Half Word to Word
FWIDENLHWP Floating Point Widen Least Significant Half Words to Word Pair

FWIDENLWD .. Floating Point Widen Least Significant Word to Double
FWIDENMHW .Floating Point Widen Most Significant Half Word to Word
FWIDENMHWPFloating Point Widen Most Significant Half Words to Word Pair
FWIDENMWD ...Floating Point Widen Most Significant Word to Double

EXT

CONVDHV0 Convert Double Word to Half Word Vector 0
CONVDHV1 Convert Double Word to Half Word Vector 1
CONVWBV0 Convert Word to Byte Vector 0
CONVWBV1 Convert Word to Byte Vector 1
CONVWBV2 Convert Word to Byte Vector 2
CONVWBV3 Convert Word to Byte Vector 3
FMMA242HW0 . Floating-Point Matrix Multiply-Add 2x4x2 Half Words to Words 0
FMMA242HW1 . Floating-Point Matrix Multiply-Add 2x4x2 Half Words to Words 1
FMMA242HW2 . Floating-Point Matrix Multiply-Add 2x4x2 Half Words to Words 2
FMMA242HW3 . Floating-Point Matrix Multiply-Add 2x4x2 Half Words to Words 3
FNARROW44WH Floating Point Narrow Word to Half Word Vector
FSCALEWV Floating Point Scale Word Vector
MMA444HBD0 Matrix Multiply-Add 4x4x4 Half Words by Bytes to Double Words 0
MMA444HBD1 Matrix Multiply-Add 4x4x4 Half Words by Bytes to Double Words 1
MMA444HD . Matrix Multiply-Add 4x4x4 Half Words to Double Words
MMA444SUHBD0 Matrix Multiply-Add 4x4x4 Signed Half Words by Unsigned Bytes to Double Words 0
MMA444SUHBD1 Matrix Multiply-Add 4x4x4 Signed Half Words by Unsigned Bytes to Double Words 1
MMA444SUHD . Matrix Multiply-Add 4x4x4 Signed by Unsigned Half Words to Double Words
MMA444UHBDO Matrix Multiply-Add 4x4x4 Unsigned Half Words by Unsigned Bytes to Double Words 0
MMA444UHBD1 Matrix Multiply-Add 4x4x4 Unsigned Half Words by Unsigned Bytes to Double Words 1

MMA444UHD Matrix Multiply-Add 4x4x4 Unsigned by Unsigned Half Words to Double Words

MMA444USHBD0 ... Matrix Multiply-Add 4x4x4 Unsigned Half Words by Signed Bytes to Double Words 0

MMA444USHBD1 ... Matrix Multiply-Add 4x4x4 Unsigned Half Words by Signed Bytes to Double Words 1

MMA444USHD . Matrix Multiply-Add 4x4x4 Unsigned by Signed Half Words to Double Words

XMMA484BW ...Extension Matrix Multiply-Add 4x8x4 Bytes to Words

XMMA484SUBW ..Extension Matrix Multiply-Add 4x8x4 Signed by Unsigned Bytes to Words

XMMA484UBW .Extension Matrix Multiply-Add 4x8x4 Unsigned by Unsigned Bytes to Words

XMMA484USBW Extension Matrix Multiply-Add 4x8x4 Unsigned by Signed Bytes to Words

XMT44D Extension Matrix Transpose 4x4 Double Words