



OVP Guide to Using Processor Models

Model Specific Information for variant MIPS32_1004Kc

Imperas Software Limited

Imperas Buildings, North Weston
Thame, Oxfordshire, OX9 2HA, UK
docs@imperas.com



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| Author | Imperas Software Limited |
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Model Release Status

This model is released as part of OVP releases and is included in OVPworld packages. Please visit OVPworld.org.

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1 Overview

This document provides the details of an OVP Fast Processor Model variant. OVP Fast Processor Models are written in C and provide a C API for use in C based platforms. The models also provide a native interface for use in SystemC TLM2 platforms. The models are written using the OVP VMI API that provides a Virtual Machine Interface that defines the behavior of the processor. The VMI API makes a clear line between model and simulator allowing very good optimization and world class high speed performance. Most models are provided as a binary shared object and also as source. This allows the download and use of the model binary or the use of the source to explore and modify the model.

The models are run through an extensive QA and regression testing process and most model families are validated using technology provided by the processor IP owners.

There is a companion document (OVP Guide to Using Processor Models) which explains the general concepts of OVP Fast Processor Models and their use. It is downloadable from the OVPworld website documentation pages.

1.1 Description

MIPS32 Configurable Processor Model

1.2 Licensing

Usage of binary model under license governing simulator usage. Source of model available under Imperas Software License Agreement.

1.3 Limitations

If this model is not part of your installation, then it is available for download from www.OVPworld.org/MIPSEuser.

Cache model does not implement coherency

1.4 Verification

Models have been validated correct as part of the MIPS Verified program and run through the MIPS AVP test programs

1.5 Features

MIPS32 Instruction set implemented

MMU Type: Standard TLB

L1 I and D cache model in either full or tag-only mode implemented (disabled by default)

Vectored interrupts implemented

MIPS16e ASE implemented

MT ASE implemented

DSP ASE implemented

2 Configuration

2.1 Location

The model source and object file is found in the VLNV tree at:

mips.ovpworld.org/processor/mips32/1.0

2.2 GDB Path

The default GDB for this model is found at:

`$IMPERAS_HOME/lib/$IMPERAS_ARCH/gdb/mips-sde-elf-gdb`

2.3 Semi-Host Library

The default semi-host library file is found in the VLNV tree at :

mips.ovpworld.org/semihosting/mips32SDE/1.0

2.4 Processor Endian-ness

This model can be set to either endian-ness (normally by a pin, or the ELF code).

2.5 QuantumLeap Support

This processor is qualified to run in a QuantumLeap enabled simulator.

2.6 Processor ELF Code

The ELF code supported by this model is: 0x8

3 Other Variants in this Model

Table 1.

| Variant |
|--------------|
| ISA |
| M14K |
| M14KcTLB |
| M14KcFMM |
| 4KEc |
| 4KEm |
| 4KEp |
| M4K |
| 4Kc |
| 4Km |
| 4Kp |
| 24Kc |
| 24Kf |
| 24KEc |
| 24KEf |
| 34Kc |
| 34Kf |
| 34Kn |
| 74Kc |
| 74Kf |
| 1004Kc |
| 1004Kf |
| 1074Kc |
| 1074Kf |
| microAptivC |
| microAptivP |
| microAptivCF |
| interAptiv |
| interAptivUP |
| proAptiv |

4 Bus Ports

Table 2.

| Type | Name | min | max |
|--------------------|-------------|-----|-----|
| master (initiator) | INSTRUCTION | 10 | 36 |
| master (initiator) | DATA | 10 | 36 |

5 Net Ports

Table 3.

| Name | Type | Description |
|-------|-------|--------------------------|
| reset | input | CMP reset |
| dint | input | Debug external interrupt |
| int0 | input | GIC external interrupt |
| int1 | input | GIC external interrupt |
| int2 | input | GIC external interrupt |
| int3 | input | GIC external interrupt |
| int4 | input | GIC external interrupt |
| int5 | input | GIC external interrupt |
| int6 | input | GIC external interrupt |
| int7 | input | GIC external interrupt |
| int8 | input | GIC external interrupt |
| int9 | input | GIC external interrupt |
| int10 | input | GIC external interrupt |
| int11 | input | GIC external interrupt |
| int12 | input | GIC external interrupt |
| int13 | input | GIC external interrupt |
| int14 | input | GIC external interrupt |
| int15 | input | GIC external interrupt |
| int16 | input | GIC external interrupt |
| int17 | input | GIC external interrupt |
| int18 | input | GIC external interrupt |
| int19 | input | GIC external interrupt |
| int20 | input | GIC external interrupt |
| int21 | input | GIC external interrupt |
| int22 | input | GIC external interrupt |
| int23 | input | GIC external interrupt |
| int24 | input | GIC external interrupt |
| int25 | input | GIC external interrupt |
| int26 | input | GIC external interrupt |
| int27 | input | GIC external interrupt |
| int28 | input | GIC external interrupt |
| int29 | input | GIC external interrupt |
| int30 | input | GIC external interrupt |
| int31 | input | GIC external interrupt |
| int32 | input | GIC external interrupt |
| int33 | input | GIC external interrupt |
| int34 | input | GIC external interrupt |
| int35 | input | GIC external interrupt |

| | | |
|------------------|-------|--------------------------------------|
| int36 | input | GIC external interrupt |
| int37 | input | GIC external interrupt |
| int38 | input | GIC external interrupt |
| int39 | input | GIC external interrupt |
| yq_CPU0 | input | Yield qualifier |
| yq0_CPU0 | input | Yield qualifier |
| yq1_CPU0 | input | Yield qualifier |
| yq2_CPU0 | input | Yield qualifier |
| yq3_CPU0 | input | Yield qualifier |
| yq4_CPU0 | input | Yield qualifier |
| yq5_CPU0 | input | Yield qualifier |
| yq6_CPU0 | input | Yield qualifier |
| yq7_CPU0 | input | Yield qualifier |
| yq8_CPU0 | input | Yield qualifier |
| yq9_CPU0 | input | Yield qualifier |
| yq10_CPU0 | input | Yield qualifier |
| yq11_CPU0 | input | Yield qualifier |
| yq12_CPU0 | input | Yield qualifier |
| yq13_CPU0 | input | Yield qualifier |
| yq14_CPU0 | input | Yield qualifier |
| yq15_CPU0 | input | Yield qualifier |
| hwint0_CPU0_VPE0 | input | External interrupt |
| hwint1_CPU0_VPE0 | input | External interrupt |
| hwint2_CPU0_VPE0 | input | External interrupt |
| hwint3_CPU0_VPE0 | input | External interrupt |
| hwint4_CPU0_VPE0 | input | External interrupt |
| hwint5_CPU0_VPE0 | input | External interrupt |
| nmi_CPU0_VPE0 | input | Non-maskable external interrupt |
| hwint0 | input | External interrupt for compatibility |
| hwint0_CPU0_VPE1 | input | External interrupt |
| hwint1_CPU0_VPE1 | input | External interrupt |
| hwint2_CPU0_VPE1 | input | External interrupt |
| hwint3_CPU0_VPE1 | input | External interrupt |
| hwint4_CPU0_VPE1 | input | External interrupt |
| hwint5_CPU0_VPE1 | input | External interrupt |
| nmi_CPU0_VPE1 | input | Non-maskable external interrupt |
| yq_CPU1 | input | Yield qualifier |
| yq0_CPU1 | input | Yield qualifier |
| yq1_CPU1 | input | Yield qualifier |
| yq2_CPU1 | input | Yield qualifier |
| yq3_CPU1 | input | Yield qualifier |
| yq4_CPU1 | input | Yield qualifier |

| | | |
|------------------|-------|---------------------------------|
| yq5_CPU1 | input | Yield qualifier |
| yq6_CPU1 | input | Yield qualifier |
| yq7_CPU1 | input | Yield qualifier |
| yq8_CPU1 | input | Yield qualifier |
| yq9_CPU1 | input | Yield qualifier |
| yq10_CPU1 | input | Yield qualifier |
| yq11_CPU1 | input | Yield qualifier |
| yq12_CPU1 | input | Yield qualifier |
| yq13_CPU1 | input | Yield qualifier |
| yq14_CPU1 | input | Yield qualifier |
| yq15_CPU1 | input | Yield qualifier |
| hwint0_CPU1_VPE0 | input | External interrupt |
| hwint1_CPU1_VPE0 | input | External interrupt |
| hwint2_CPU1_VPE0 | input | External interrupt |
| hwint3_CPU1_VPE0 | input | External interrupt |
| hwint4_CPU1_VPE0 | input | External interrupt |
| hwint5_CPU1_VPE0 | input | External interrupt |
| nmi_CPU1_VPE0 | input | Non-maskable external interrupt |
| hwint0_CPU1_VPE1 | input | External interrupt |
| hwint1_CPU1_VPE1 | input | External interrupt |
| hwint2_CPU1_VPE1 | input | External interrupt |
| hwint3_CPU1_VPE1 | input | External interrupt |
| hwint4_CPU1_VPE1 | input | External interrupt |
| hwint5_CPU1_VPE1 | input | External interrupt |
| nmi_CPU1_VPE1 | input | Non-maskable external interrupt |
| yq_CPU2 | input | Yield qualifier |
| yq0_CPU2 | input | Yield qualifier |
| yq1_CPU2 | input | Yield qualifier |
| yq2_CPU2 | input | Yield qualifier |
| yq3_CPU2 | input | Yield qualifier |
| yq4_CPU2 | input | Yield qualifier |
| yq5_CPU2 | input | Yield qualifier |
| yq6_CPU2 | input | Yield qualifier |
| yq7_CPU2 | input | Yield qualifier |
| yq8_CPU2 | input | Yield qualifier |
| yq9_CPU2 | input | Yield qualifier |
| yq10_CPU2 | input | Yield qualifier |
| yq11_CPU2 | input | Yield qualifier |
| yq12_CPU2 | input | Yield qualifier |
| yq13_CPU2 | input | Yield qualifier |
| yq14_CPU2 | input | Yield qualifier |
| yq15_CPU2 | input | Yield qualifier |

| | | |
|------------------|-------|---------------------------------|
| hwint0_CPU2_VPE0 | input | External interrupt |
| hwint1_CPU2_VPE0 | input | External interrupt |
| hwint2_CPU2_VPE0 | input | External interrupt |
| hwint3_CPU2_VPE0 | input | External interrupt |
| hwint4_CPU2_VPE0 | input | External interrupt |
| hwint5_CPU2_VPE0 | input | External interrupt |
| nmi_CPU2_VPE0 | input | Non-maskable external interrupt |
| hwint0_CPU2_VPE1 | input | External interrupt |
| hwint1_CPU2_VPE1 | input | External interrupt |
| hwint2_CPU2_VPE1 | input | External interrupt |
| hwint3_CPU2_VPE1 | input | External interrupt |
| hwint4_CPU2_VPE1 | input | External interrupt |
| hwint5_CPU2_VPE1 | input | External interrupt |
| nmi_CPU2_VPE1 | input | Non-maskable external interrupt |
| yq_CPU3 | input | Yield qualifier |
| yq0_CPU3 | input | Yield qualifier |
| yq1_CPU3 | input | Yield qualifier |
| yq2_CPU3 | input | Yield qualifier |
| yq3_CPU3 | input | Yield qualifier |
| yq4_CPU3 | input | Yield qualifier |
| yq5_CPU3 | input | Yield qualifier |
| yq6_CPU3 | input | Yield qualifier |
| yq7_CPU3 | input | Yield qualifier |
| yq8_CPU3 | input | Yield qualifier |
| yq9_CPU3 | input | Yield qualifier |
| yq10_CPU3 | input | Yield qualifier |
| yq11_CPU3 | input | Yield qualifier |
| yq12_CPU3 | input | Yield qualifier |
| yq13_CPU3 | input | Yield qualifier |
| yq14_CPU3 | input | Yield qualifier |
| yq15_CPU3 | input | Yield qualifier |
| hwint0_CPU3_VPE0 | input | External interrupt |
| hwint1_CPU3_VPE0 | input | External interrupt |
| hwint2_CPU3_VPE0 | input | External interrupt |
| hwint3_CPU3_VPE0 | input | External interrupt |
| hwint4_CPU3_VPE0 | input | External interrupt |
| hwint5_CPU3_VPE0 | input | External interrupt |
| nmi_CPU3_VPE0 | input | Non-maskable external interrupt |
| hwint0_CPU3_VPE1 | input | External interrupt |
| hwint1_CPU3_VPE1 | input | External interrupt |
| hwint2_CPU3_VPE1 | input | External interrupt |
| hwint3_CPU3_VPE1 | input | External interrupt |

| | | |
|------------------|-------|---------------------------------|
| hwint4_CPU3_VPE1 | input | External interrupt |
| hwint5_CPU3_VPE1 | input | External interrupt |
| nmi_CPU3_VPE1 | input | Non-maskable external interrupt |

6 FIFO Ports

No FIFO Ports in this model.

7 Parameters

Table 4.

| Name | Type | Description |
|--------------------------|-------------|--|
| cacheenable | Enumeration | Select cache model mode default=0 tag=1 full=2 |
| cachedebug | Uns32 | Cache debug flags |
| cacheextbiuinfo | Pointer | Pointer to platform-provided BIU cache info structure |
| mipsHexFile | String | Load a MIPS hex file (test-mode) |
| IMPERAS_MIPS_AVP_OPCODES | Boolean | Enable MIPS-specific magic Pass/Fail opcodes (specific for AVP test termination) |
| cacheIndexBypassTLB | Boolean | When set, cache index ops do not generate TLB exceptions |
| MIPS_TRACE | Boolean | Enable MIPS-format trace output |
| supervisorMode | Boolean | Override whether processor implements supervisor mode |
| busErrors | Boolean | Override bus error exception behavior. When true, accesses of memory not defined by platform will cause bus error exceptions |
| fixedMMU | Boolean | Override the MMU type to fixed mapping when true (sets Config.MT=3, Config.KU/K23=2 and Config1.MMUSizeM1=0) |
| removeDSP | Boolean | Override the DSP-present configuration when true (sets Config3.DSPP/DSP2P=0) |
| removeCMP | Boolean | Override the CMP-Present configuration when true (sets Config3.CMGCR and GCR_BASE to 0) |
| removeFP | Boolean | Override the FP-Present configuration when true (sets Config1.FP to 0) |
| isISA | Boolean | Enable to specify ISA model (reset address from ELF, all coprocessors enabled) |
| hiddenTLBentries | Boolean | Deprecated - Instead set config1MMUSizeM1 to maximum value to improve performance |
| ITCNumEntries | Uns32 | Specify number of ITC cells present (MT cores only) |
| ITCNumFIFO | Uns32 | Specify number of ITC FIFO cells in reference ITC implementation (MT cores only) |
| MTFPU | Uns32 | Enable multi-threaded FPU (1:old mttc1 behavior, 2:new mttc1 behavior) |

| | | |
|------------------|---------|---|
| supportDenormals | Boolean | Enable to specify that the FPU supports denormal operands and results |
| VPE0MaxTC | Uns32 | Specifies the maximum TCs initially on VPE0 |
| mpuRegions | Uns32 | Number of regions for memory protection unit |
| mpuType | Uns32 | Type of MPU implementation |
| mpuEnable | Boolean | Enable MPU2 segment control at reset |
| mpuSegment0 | Uns32 | Attributes for segment 0 in MPU2 SegmentControl_0 register |
| mpuSegment1 | Uns32 | Attributes for segment 1 in MPU2 SegmentControl_0 register |
| mpuSegment2 | Uns32 | Attributes for segment 2 in MPU2 SegmentControl_0 register |
| mpuSegment3 | Uns32 | Attributes for segment 3 in MPU2 SegmentControl_0 register |
| mpuSegment4 | Uns32 | Attributes for segment 4 in MPU2 SegmentControl_1 register |
| mpuSegment5 | Uns32 | Attributes for segment 5 in MPU2 SegmentControl_1 register |
| mpuSegment6 | Uns32 | Attributes for segment 6 in MPU2 SegmentControl_1 register |
| mpuSegment7 | Uns32 | Attributes for segment 7 in MPU2 SegmentControl_1 register |
| mpuSegment8 | Uns32 | Attributes for segment 8 in MPU2 SegmentControl_2 register |
| mpuSegment9 | Uns32 | Attributes for segment 9 in MPU2 SegmentControl_2 register |
| mpuSegment10 | Uns32 | Attributes for segment 10 in MPU2 SegmentControl_2 register |
| mpuSegment11 | Uns32 | Attributes for segment 11 in MPU2 SegmentControl_2 register |
| mpuSegment12 | Uns32 | Attributes for segment 12 in MPU2 SegmentControl_3 register |
| mpuSegment13 | Uns32 | Attributes for segment 13 in MPU2 SegmentControl_3 register |
| mpuSegment14 | Uns32 | Attributes for segment 14 in MPU2 SegmentControl_3 register |
| mpuSegment15 | Uns32 | Attributes for segment 15 in MPU2 SegmentControl_3 register |
| mvpconf0vpe | Uns32 | Override MVPConf0.PVPE |
| mvpconf0tc | Uns32 | Override MVPConf0.PTC |
| mvpconf0pcp | Boolean | Override MVPConf0.PCP |
| mvpconf0tcp | Boolean | Override MVPConf0.TCP |
| hasFDC | Uns32 | Specify the size of Fast Debug Channel register block |
| statusFR | Boolean | Override power on value in Status.FR (Floating point register mode) |

| | | |
|------------------|---------|---|
| configDSP | Boolean | Override Config.DSP (data scratchpad RAM present) |
| configISP | Boolean | Override Config.ISP (instruction scratchpad RAM present) |
| configK0 | Uns32 | Override power on value of Config.K0 (set Kseg0 cacheability) |
| configKU | Uns32 | Override power on value of Config.KU (set Useg cacheability) |
| configK23 | Uns32 | Override power on value of Config.K23 (set Kseg23 cacheability) |
| configMDU | Boolean | Override Config.MDU (iterative multiply/divide unit) |
| configMM | Boolean | Override Config.MM (merging mode for write) |
| configMT | Uns32 | Override Config.MT |
| configSB | Boolean | Override Config.SB (simple bus transfers only) |
| MIPS16eASE | Boolean | Override Config1.CA (enables the MIPS16e ASE) |
| config1DA | Uns32 | Override Config1.DA (Dcache associativity) |
| config1DL | Uns32 | Override Config1.DL (Dcache line size) |
| config1DS | Uns32 | Override Config1.DS (Dcache sets per way) |
| config1EP | Boolean | Override Config1.EP (EJTag present) |
| config1IA | Uns32 | Override Config1.IA (Icache associativity) |
| config1IL | Uns32 | Override Config1.IL (Icache line size) |
| config1IS | Uns32 | Override Config1.IS (Icache sets per way) |
| config1MMUSizeM1 | Uns32 | Override Config1.MMUSizeM1 (number of MMU entries-1) |
| config1WR | Boolean | Override Config1.WR (watchpoint registers present) |
| config1FP | Boolean | Override Config1.FP (FPU present) |
| config3BI | Boolean | Override Config3.BI |
| config3BP | Boolean | Override Config3.BP |
| config3CDMM | Boolean | Override Config3.CDMM |
| config3CTXTC | Boolean | Override Config3.CTXTC |
| config3DSPP | Boolean | Override Config3.DSPP |
| config3DSP2P | Boolean | Override Config3.DSP2P |
| config3IPLW | Uns32 | Override Config3.IPLW |
| config3ISA | Uns32 | Override Config3.ISA |
| config3ISAOnExc | Boolean | Override Config3.ISAOnExc |
| config3ITL | Boolean | Override Config3.ITL |
| config3MCU | Boolean | Override Config3.MCU |
| config3MMAR | Uns32 | Override Config3.MMAR |
| config3RXI | Boolean | Override Config3.RXI |
| config3SC | Boolean | Override Config3.SC |

| | | |
|------------------------------|---------|---|
| config3ULRI | Boolean | Override Config3.ULRI |
| externalinterrupt | Boolean | Override Config3.VEIC (enables the use of an external interrupt controller) |
| vectoredinterrupt | Boolean | Override Config3.VInt (enables vectored interrupts) |
| config3VZ | Boolean | Override Config3.VZ |
| config4AE | Boolean | Override Config4.AE |
| config4IE | Uns32 | Override Config4.IE |
| config4MMUConfig | Uns32 | Override Config4.MMUConfig field (interpretation depends on MMUExtDef value) |
| config4MMUExtDef | Uns32 | Override Config4.MMUExtDef |
| config4VTLBSizeExt | Uns32 | Override Config4.VTLBSizeExt |
| config5EVA | Boolean | Override Config5.EVA |
| config5NFExists | Boolean | Override Config5.NFExists |
| config5MSAEn | Boolean | Override Config5.MSAEn |
| config6FTLBEEn | Boolean | Override power on value of Config6.FTLBEEn |
| config7AR | Boolean | Override Config7.AR (Alias removed Data cache) |
| config7DCIDX_MODE | Uns32 | Override Config7.DCIDX_MODE |
| config7HCI | Boolean | Override Config7.HCI (Hardware Cache Initialization) |
| config7IAR | Boolean | Override Config7.IAR (Alias removed Instruction cache) |
| config7WII | Boolean | Override Config7.WII (wait IE/IXMT ignore) |
| fcsrABS2008 | Boolean | Override FCSR.ABS2008 (ABS/NEG compliant with IEEE 754-2008) |
| fcsrNaN2008 | Boolean | Override FCSR.NAN2008 (QNaN/SNaN encodings match IEEE 754-2008 recommendation) |
| firPS | Boolean | Override FIR.PS (PS floating point type implemented) |
| firHas2008 | Boolean | Override FIR.Has2008 (one or more IEEE 754-2008 features present) |
| intctlIPFDC | Uns32 | Override IntCtl.IPFDC |
| intctlIPTI | Uns32 | Override IntCtl.IPTI |
| pridRevision | Uns32 | Override PRId.Revision |
| srsctlHSS | Uns32 | Override SRSCtl.HSS (number of shadow register sets) |
| ExceptionBase | Uns32 | Specify the BEV Exception Base address. (use GCR_Cx_RESET_BASE on CMP processors) |
| UseExceptionBase | Boolean | Set to one to use ExceptionBase[29:12] as the corresponding BEV address bits |
| firstBEVExceptionBaseMaskBit | Uns32 | Specify LSB position of GCR_Cx_RESET_EXT_BASE.BEVExceptionBaseMask field. Only used when SegCtl present |

| | | |
|---------------------|---------|--|
| EVAReset | Boolean | Set to one to reset into non-legacy address map and BEV location. Only used when non-CMP and SegCtl present |
| ExceptionBaseMask | Uns32 | Specify the ExceptionBaseMask value used for bits [27:firstBEVExceptionBaseMaskBit]. Only used when non-CMP and SegCtl present |
| ExceptionBasePA | Uns32 | Bits [35:29] of the physical address for the BEV overlays. Only used when non-CMP and SegCtl present |
| GIC_EX | Boolean | CMP system only: GIC unit present |
| CPC_EX | Boolean | CMP system only: CPC unit present |
| TIMER_ROUTABLE | Boolean | CMP system only: cpu timer interrupt routable within cluster |
| SWINT_ROUTABLE | Boolean | CMP system only: software interrupt routable within cluster |
| GCR_PCORES | Uns32 | CMP system only: override GCR_CONFIG.PCORES (number of cores-1) |
| GCR_BASE | Uns32 | CMP system only: override GCR_BASE.GCR_BASE (default GCR register address) |
| GCR_MINOR_REV | Uns32 | CMP system only: override GCR_REV.MINOR_REV |
| GCR_MAJOR_REV | Uns32 | CMP system only: override GCR_REV.MAJOR_REV |
| GCR_CACHE_MINOR_REV | Uns32 | CMP system only: override GCR_CACHE_REV.MINOR_REV |
| GCR_CACHE_MAJOR_REV | Uns32 | CMP system only: override GCR_CACHE_REV.MAJOR_REV |
| GCR_IOCU1_MINOR_REV | Uns32 | CMP system only: override GCR_IOCU1_REV.MINOR_REV |
| GCR_IOCU1_MAJOR_REV | Uns32 | CMP system only: override GCR_IOCU1_REV.MAJOR_REV |
| GIC_NUMINTERRUPTS | Uns32 | CMP system only: override GIC_SH_CONFIG.NUMINTERRUPTS |
| GIC_COUNTBITS | Uns32 | CMP system only: override GIC_SH_CONFIG.COUNTBITS |
| GIC_MINOR_REV | Uns32 | CMP system only: override GIC_SH_REVISION.MINOR_REV |
| GIC_MAJOR_REV | Uns32 | CMP system only: override GIC_SH_REVISION.MAJOR_REV |
| GIC_PVPES | Uns32 | CMP system only: override GIC_SH_CONFIG.PVPES |
| CPC_MICROSTEP | Uns32 | CMP system only: override CPC_SEQDEL.MICROSTEP |
| CPC_RAILDELAY | Uns32 | CMP system only: override CPC_RAIL.RAILDELAY |

| | | |
|-----------------------|---------|---|
| CPC_RESETLEN | Uns32 | CMP system only: override CPC_RESETLEN.RESETLEN |
| CPC_MINOR_REV | Uns32 | CMP system only: override CPC_REVISION.MINOR_REV |
| CPC_MAJOR_REV | Uns32 | CMP system only: override CPC_REVISION.MAJOR_REV |
| GCR_C0_RESET_BASE | Uns32 | CMP system only: GCR_CL_RESET_BASE for core 0 |
| GCR_C1_RESET_BASE | Uns32 | CMP system only: GCR_CL_RESET_BASE for core 1 |
| GCR_C2_RESET_BASE | Uns32 | CMP system only: GCR_CL_RESET_BASE for core 2 |
| GCR_C3_RESET_BASE | Uns32 | CMP system only: GCR_CL_RESET_BASE for core 3 |
| GCR_C0_RESET_EXT_BASE | Uns32 | CMP system only: GCR_CL_RESET_EXT_BASE for core 0. Only used when SegCtl present |
| GCR_C1_RESET_EXT_BASE | Uns32 | CMP system only: GCR_CL_RESET_EXT_BASE for core 1. Only used when SegCtl present |
| GCR_C2_RESET_EXT_BASE | Uns32 | CMP system only: GCR_CL_RESET_EXT_BASE for core 2. Only used when SegCtl present |
| GCR_C3_RESET_EXT_BASE | Uns32 | CMP system only: GCR_CL_RESET_EXT_BASE for core 3. Only used when SegCtl present |
| EIC_OPTION | Uns32 | Override the external interrupt controller EIC_OPTION |
| ISPRAM_SIZE | Uns32 | Encoded size of the ISPRAM region ($\log_2(\text{ISPRAM size in bytes}) - 11$) |
| ISPRAM_BASE | Uns64 | Starting physical address of the ISPRAM region |
| ISPRAM_ENABLE | Boolean | Set the enable bit of the ISPRAM region's tag (used to enable the ISPRAM region prior to reset) |
| ISPRAM_FILE | String | Load a MIPS hex file into the ISPRAM region prior to reset |
| DSPRAM_SIZE | Uns32 | Encoded size of the DSPRAM region ($\log_2(\text{DSPRAM size in bytes}) - 11$) |
| DSPRAM_BASE | Uns64 | Starting physical address of the DSPRAM region |
| DSPRAM_ENABLE | Boolean | Set the enable bit of the DSPRAM region's tag (used to enable the DSPRAM region prior to reset) |

8 Execution Modes

Table 5.

| Name | Code |
|------------|------|
| KERNEL | 0 |
| DEBUG | 1 |
| SUPERVISOR | 2 |
| USER | 3 |

9 Exceptions

Table 6.

| Name | Code |
|----------|------|
| Int | 0 |
| Mod | 1 |
| TLBL | 2 |
| TLBS | 3 |
| AdEL | 4 |
| AdES | 5 |
| IBE | 6 |
| DBE | 7 |
| Sys | 8 |
| Bp | 9 |
| RI | 10 |
| CpU | 11 |
| Ov | 12 |
| Tr | 13 |
| FPE | 15 |
| Impl1 | 16 |
| Impl2 | 17 |
| C2E | 18 |
| TLBRI | 19 |
| TLBXI | 20 |
| MDMX | 22 |
| WATCH | 23 |
| MCheck | 24 |
| Thread | 25 |
| DSPDis | 26 |
| Prot | 29 |
| CacheErr | 30 |

10 Hierarchy of the model

A CPU core may allow the user to configure it to instance many processors of a Symmetrical Multi Processor (SMP). A CPU core may also have sub elements within a processor, for example hardware threading blocks.

OVP processor models can be written to include SMP blocks and to have many levels of hierarchy.

Some OVP CPU models may have a fixed hierarchy, and some may be configured by settings in a configuration register. Please see the register definitions of this model.

This model documentation shows the settings and hierarchy of the default settings for this model variant.

10.1 Level 1: CMP

This level in the model hierarchy has 2 commands.

This level in the model hierarchy has no register groups.

This level in the model hierarchy has 4 children:

CPU0, CPU1, CPU2 and CPU3

10.2 Level 2: CPU

This level in the model hierarchy has 2 commands.

This level in the model hierarchy has no register groups.

This level in the model hierarchy has 2 children:

CPU0_VPE0 and CPU0_VPE1

10.3 Level 3: VPE

This level in the model hierarchy has 2 commands.

This level in the model hierarchy has 4 register groups:

Table 7.

| Group name | Registers |
|------------|-----------|
| COP0 | 50 |
| CMP_GCR | 27 |
| CMP_CPC | 11 |
| CMP_GIC | 746 |

This level in the model hierarchy has one child:

CPU0_TC0

10.4 Level 4: TC

This level in the model hierarchy has 16 commands.

This level in the model hierarchy has 7 register groups:

Table 8.

| Group name | Registers |
|---------------------|------------------|
| Core | 33 |
| DSP | 9 |
| COP0 | 64 |
| CMP_GCR | 27 |
| CMP_CPC | 11 |
| CMP_GIC | 746 |
| Integration_support | 1 |

This level in the model hierarchy has no children.

11 Model Commands

11.1 Level 1: CMP

Table 9.

| Name | Arguments |
|--------|---|
| isync | specify instruction address range for synchronous execution |
| itrace | enable or disable instruction tracing |

11.2 Level 2: CPU

Table 10.

| Name | Arguments |
|--------|---|
| isync | specify instruction address range for synchronous execution |
| itrace | enable or disable instruction tracing |

11.3 Level 3: VPE

Table 11.

| Name | Arguments |
|--------|---|
| isync | specify instruction address range for synchronous execution |
| itrace | enable or disable instruction tracing |

11.4 Level 4: TC

Table 12.

| Name | Arguments |
|-------------------|--|
| isync | specify instruction address range for synchronous execution |
| itrace | enable or disable instruction tracing |
| mipsCOP0 | <register> <select> |
| mipsCacheDisable | |
| mipsCacheEnable | -tag -full |
| mipsCacheRatio | -icache -dcache |
| mipsCacheReport | |
| mipsCacheReset | |
| mipsCacheTrace | -on -off [-nocached -nouncached] [-noicache -nodcache] [-noartifact -notrue] |
| mipsDebugFlags | <value> |
| mipsReadRegister | <resource> <offset> |
| mipsReadTLBEntry | <index> |
| mipsTLBDump | |
| mipsTLBGetPhys | <virtual address> <ASID> |
| mipsWriteRegister | <resource> <offset> <value> |
| mipsWriteTLBEntry | <index> <lo0> <lo1> <hi0> <mask> |

12 Registers

12.1 Level 1: CMP

No registers.

12.2 Level 2: CPU

No registers.

12.3 Level 3: VPE

12.3.1 COP0

Table 13.

| Name | Bits | Initial value (Hex) | | Description |
|-------------|------|---------------------|----|------------------------------|
| bad | 32 | 0 | rw | CP0 register 8/0 (badvaaddr) |
| cause | 32 | 0 | rw | CP0 register 13/0 (cause) |
| index | 32 | 0 | rw | CP0 register 0/0 |
| mvpcontrol | 32 | 0 | rw | CP0 register 0/1 |
| mvpconf0 | 32 | 88008401 | rw | CP0 register 0/2 |
| mvpconf1 | 32 | 0 | rw | CP0 register 0/3 |
| random | 32 | 0 | rw | CP0 register 1/0 |
| vpecontrol | 32 | 0 | rw | CP0 register 1/1 |
| vpeconf0 | 32 | 80000003 | rw | CP0 register 1/2 |
| vpeconf1 | 32 | 0 | rw | CP0 register 1/3 |
| yqmask | 32 | 0 | rw | CP0 register 1/4 |
| vpeschedule | 32 | 0 | rw | CP0 register 1/5 |
| vpescheback | 32 | 0 | rw | CP0 register 1/6 |
| vpeopt | 32 | 0 | rw | CP0 register 1/7 |
| entrylo0 | 32 | 0 | rw | CP0 register 2/0 |
| entrylo1 | 32 | 0 | rw | CP0 register 3/0 |
| context | 32 | 0 | rw | CP0 register 4/0 |
| pagemask | 32 | 0 | rw | CP0 register 5/0 |
| wired | 32 | 0 | rw | CP0 register 6/0 |
| srsconf0 | 32 | 3fffffff | rw | CP0 register 6/1 |
| hwrena | 32 | 0 | rw | CP0 register 7/0 |
| badvaddr | 32 | 0 | rw | CP0 register 8/0 |
| count | 32 | 0 | rw | CP0 register 9/0 |
| compare | 32 | 0 | rw | CP0 register 11/0 |
| intctl | 32 | e0000000 | rw | CP0 register 12/1 |
| srsctl | 32 | 0 | rw | CP0 register 12/2 |
| srsmap | 32 | 0 | rw | CP0 register 12/3 |
| epc | 32 | 0 | rw | CP0 register 14/0 |
| prid | 32 | 19900 | rw | CP0 register 15/0 |
| ebase | 32 | 80000000 | rw | CP0 register 15/1 |
| cmgcrbase | 32 | 1fbf800 | rw | CP0 register 15/3 |
| config | 32 | 80048482 | rw | CP0 register 16/0 |
| config1 | 32 | 9e231186 | rw | CP0 register 16/1 |
| config2 | 32 | 80000000 | rw | CP0 register 16/2 |

| | | | | |
|-----------|----|----------|----|-------------------|
| config3 | 32 | 20002424 | rw | CP0 register 16/3 |
| config7 | 32 | 80080100 | rw | CP0 register 16/7 |
| depc | 32 | 0 | rw | CP0 register 24/0 |
| errctl | 32 | 0 | rw | CP0 register 26/0 |
| itaglo | 32 | 0 | rw | CP0 register 28/0 |
| idatalo | 32 | 0 | rw | CP0 register 28/1 |
| dtaglo | 32 | 0 | rw | CP0 register 28/2 |
| ddatalo | 32 | 0 | rw | CP0 register 28/3 |
| l23taglo | 32 | 0 | rw | CP0 register 28/4 |
| l23datalo | 32 | 0 | rw | CP0 register 28/5 |
| itaghi | 32 | 0 | rw | CP0 register 29/0 |
| idatahi | 32 | 0 | rw | CP0 register 29/1 |
| dtaghi | 32 | 0 | rw | CP0 register 29/2 |
| l23datahi | 32 | 0 | rw | CP0 register 29/5 |
| errorepc | 32 | 0 | rw | CP0 register 30/0 |
| desave | 32 | 0 | rw | CP0 register 31/0 |

12.3.2 CMP_GCR

Table 14.

| Name | Bits | Initial value (Hex) | | Description |
|------------------------|------|---------------------|----|-------------|
| GCR_CONFIG | 32 | 3 | r- | |
| GCR_BASE | 32 | 1fbf8000 | rw | |
| GCR_CONTROL | 32 | 10001 | rw | |
| GCR_ACCESS | 32 | ff | rw | |
| GCR_REV | 32 | 0 | r- | |
| GCR_ERROR_MASK | 32 | 0 | rw | |
| GCR_ERROR_CAUSE | 32 | 0 | rw | |
| GCR_ERROR_ADDR | 32 | 0 | rw | |
| GCR_ERROR_MULT | 32 | 0 | rw | |
| GCR_GIC_BASE | 32 | 0 | rw | |
| GCR_CPC_BASE | 32 | 0 | rw | |
| GCR_GIC_STATUS | 32 | 1 | r- | |
| GCR_CACHE_REV | 32 | 0 | r- | |
| GCR_CPC_STATUS | 32 | 1 | r- | |
| GCR_IOC1_REV | 32 | 0 | r- | |
| GCR_CL_RESET_RELEASE_L | 32 | 0 | -w | |
| GCR_CL_COHERENCE_L | 32 | 0 | rw | |
| GCR_CL_CONFIG_L | 32 | 1 | r- | |
| GCR_CL_OTHER_L | 32 | 0 | rw | |
| GCR_CL_RESET_BASE_L | 32 | bfc00000 | rw | |
| GCR_CL_ID_L | 32 | 0 | r- | |

| | | | | |
|------------------------|----|----------|----|--|
| GCR_CL_RESET_RELEASE_O | 32 | 0 | -w | |
| GCR_CL_COHERENCE_O | 32 | 0 | rw | |
| GCR_CL_CONFIG_O | 32 | 1 | r- | |
| GCR_CL_OTHER_O | 32 | 0 | rw | |
| GCR_CL_RESET_BASE_O | 32 | bfc00000 | rw | |
| GCR_CL_ID_O | 32 | 0 | r- | |

12.3.3 CMP_CPC

Table 15.

| Name | Bits | Initial value (Hex) | | Description |
|-----------------|------|---------------------|----|-------------|
| CPC_ACCESS | 32 | ff | rw | |
| CPC_SEQDEL | 32 | 0 | rw | |
| CPC_RAIL | 32 | 0 | rw | |
| CPC_RESETLEN | 32 | 0 | rw | |
| CPC_REVISION | 32 | 0 | r- | |
| CPC_CMD_L | 32 | 0 | rw | |
| CPC_STAT_CONF_L | 32 | 380200 | rw | |
| CPC_OTHER_L | 32 | 0 | rw | |
| CPC_CMD_O | 32 | 0 | rw | |
| CPC_STAT_CONF_O | 32 | 380200 | rw | |
| CPC_OTHER_O | 32 | 0 | rw | |

12.3.4 CMP_GIC

Table 16.

| Name | Bits | Initial value (Hex) | | Description |
|-------------------|------|---------------------|----|-------------|
| GIC_SH_CONFIG | 32 | 8040007 | rw | |
| GIC_CounterLo | 32 | 0 | rw | |
| GIC_CounterHi | 32 | 0 | rw | |
| GIC_SH_REVISION | 32 | 0 | r- | |
| GIC_SH_POL31_0 | 32 | 0 | rw | |
| GIC_SH_POL63_32 | 32 | 0 | rw | |
| GIC_SH_POL95_64 | 32 | 0 | rw | |
| GIC_SH_POL127_96 | 32 | 0 | rw | |
| GIC_SH_POL159_128 | 32 | 0 | rw | |
| GIC_SH_POL191_160 | 32 | 0 | rw | |
| GIC_SH_POL223_192 | 32 | 0 | rw | |
| GIC_SH_POL255_224 | 32 | 0 | rw | |
| GIC_SH_TRIG31_0 | 32 | 0 | rw | |
| GIC_SH_TRIG63_32 | 32 | 0 | rw | |
| GIC_SH_TRIG95_64 | 32 | 0 | rw | |

| | | | | |
|---------------------|----|---|----|--|
| GIC_SH_TRIG127_96 | 32 | 0 | rw | |
| GIC_SH_TRIG159_128 | 32 | 0 | rw | |
| GIC_SH_TRIG191_160 | 32 | 0 | rw | |
| GIC_SH_TRIG223_192 | 32 | 0 | rw | |
| GIC_SH_TRIG255_224 | 32 | 0 | rw | |
| GIC_SH_DUAL31_0 | 32 | 0 | rw | |
| GIC_SH_DUAL63_32 | 32 | 0 | rw | |
| GIC_SH_DUAL95_64 | 32 | 0 | rw | |
| GIC_SH_DUAL127_96 | 32 | 0 | rw | |
| GIC_SH_DUAL159_128 | 32 | 0 | rw | |
| GIC_SH_DUAL191_160 | 32 | 0 | rw | |
| GIC_SH_DUAL223_192 | 32 | 0 | rw | |
| GIC_SH_DUAL255_224 | 32 | 0 | rw | |
| GIC_SH_WEDGE | 32 | 0 | -w | |
| GIC_SH_RMASK31_0 | 32 | 0 | -w | |
| GIC_SH_RMASK63_32 | 32 | 0 | -w | |
| GIC_SH_RMASK95_64 | 32 | 0 | -w | |
| GIC_SH_RMASK127_96 | 32 | 0 | -w | |
| GIC_SH_RMASK159_128 | 32 | 0 | -w | |
| GIC_SH_RMASK191_160 | 32 | 0 | -w | |
| GIC_SH_RMASK223_192 | 32 | 0 | -w | |
| GIC_SH_RMASK255_224 | 32 | 0 | -w | |
| GIC_SH_SMASK31_0 | 32 | 0 | -w | |
| GIC_SH_SMASK63_32 | 32 | 0 | -w | |
| GIC_SH_SMASK95_64 | 32 | 0 | -w | |
| GIC_SH_SMASK127_96 | 32 | 0 | -w | |
| GIC_SH_SMASK159_128 | 32 | 0 | -w | |
| GIC_SH_SMASK191_160 | 32 | 0 | -w | |
| GIC_SH_SMASK223_192 | 32 | 0 | -w | |
| GIC_SH_SMASK255_224 | 32 | 0 | -w | |
| GIC_SH_MASK31_0 | 32 | 0 | r- | |
| GIC_SH_MASK63_32 | 32 | 0 | r- | |
| GIC_SH_MASK95_64 | 32 | 0 | r- | |
| GIC_SH_MASK127_96 | 32 | 0 | r- | |
| GIC_SH_MASK159_128 | 32 | 0 | r- | |
| GIC_SH_MASK191_160 | 32 | 0 | r- | |
| GIC_SH_MASK223_192 | 32 | 0 | r- | |
| GIC_SH_MASK255_224 | 32 | 0 | r- | |
| GIC_SH_PEND31_0 | 32 | 0 | r- | |
| GIC_SH_PEND63_32 | 32 | 0 | r- | |
| GIC_SH_PEND95_64 | 32 | 0 | r- | |
| GIC_SH_PEND127_96 | 32 | 0 | r- | |

| | | | | |
|--------------------|----|----------|----|--|
| GIC_SH_PEND159_128 | 32 | 0 | r- | |
| GIC_SH_PEND191_160 | 32 | 0 | r- | |
| GIC_SH_PEND223_192 | 32 | 0 | r- | |
| GIC_SH_PEND255_224 | 32 | 0 | r- | |
| GIC_SH_MAP000_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP001_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP002_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP003_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP004_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP005_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP006_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP007_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP008_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP009_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP010_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP011_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP012_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP013_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP014_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP015_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP016_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP017_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP018_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP019_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP020_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP021_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP022_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP023_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP024_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP025_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP026_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP027_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP028_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP029_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP030_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP031_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP032_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP033_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP034_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP035_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP036_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP037_PIN | 32 | 80000000 | rw | |

| | | | | |
|-------------------|----|----------|----|--|
| GIC_SH_MAP038_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP039_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP040_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP041_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP042_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP043_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP044_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP045_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP046_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP047_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP048_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP049_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP050_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP051_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP052_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP053_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP054_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP055_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP056_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP057_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP058_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP059_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP060_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP061_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP062_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP063_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP064_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP065_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP066_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP067_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP068_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP069_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP070_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP071_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP072_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP073_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP074_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP075_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP076_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP077_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP078_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP079_PIN | 32 | 80000000 | rw | |

| | | | | |
|-------------------|----|----------|----|--|
| GIC_SH_MAP080_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP081_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP082_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP083_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP084_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP085_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP086_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP087_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP088_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP089_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP090_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP091_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP092_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP093_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP094_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP095_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP096_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP097_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP098_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP099_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP100_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP101_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP102_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP103_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP104_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP105_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP106_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP107_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP108_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP109_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP110_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP111_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP112_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP113_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP114_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP115_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP116_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP117_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP118_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP119_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP120_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP121_PIN | 32 | 80000000 | rw | |

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|-------------------|----|----------|----|--|
| GIC_SH_MAP122_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP123_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP124_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP125_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP126_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP127_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP128_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP129_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP130_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP131_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP132_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP133_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP134_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP135_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP136_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP137_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP138_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP139_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP140_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP141_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP142_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP143_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP144_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP145_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP146_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP147_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP148_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP149_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP150_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP151_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP152_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP153_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP154_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP155_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP156_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP157_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP158_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP159_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP160_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP161_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP162_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP163_PIN | 32 | 80000000 | rw | |

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|-------------------|----|----------|----|--|
| GIC_SH_MAP164_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP165_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP166_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP167_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP168_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP169_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP170_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP171_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP172_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP173_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP174_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP175_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP176_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP177_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP178_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP179_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP180_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP181_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP182_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP183_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP184_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP185_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP186_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP187_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP188_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP189_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP190_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP191_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP192_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP193_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP194_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP195_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP196_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP197_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP198_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP199_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP200_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP201_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP202_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP203_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP204_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP205_PIN | 32 | 80000000 | rw | |

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|-------------------|----|----------|----|--|
| GIC_SH_MAP206_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP207_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP208_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP209_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP210_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP211_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP212_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP213_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP214_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP215_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP216_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP217_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP218_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP219_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP220_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP221_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP222_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP223_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP224_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP225_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP226_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP227_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP228_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP229_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP230_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP231_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP232_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP233_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP234_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP235_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP236_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP237_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP238_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP239_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP240_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP241_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP242_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP243_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP244_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP245_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP246_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP247_PIN | 32 | 80000000 | rw | |

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|-----------------------|----|----------|----|--|
| GIC_SH_MAP248_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP249_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP250_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP251_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP252_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP253_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP254_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP255_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP000_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP001_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP002_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP003_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP004_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP005_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP006_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP007_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP008_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP009_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP010_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP011_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP012_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP013_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP014_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP015_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP016_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP017_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP018_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP019_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP020_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP021_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP022_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP023_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP024_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP025_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP026_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP027_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP028_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP029_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP030_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP031_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP032_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP033_VPE31_0 | 32 | 0 | rw | |

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|-----------------------|----|---|----|--|
| GIC_SH_MAP034_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP035_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP036_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP037_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP038_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP039_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP040_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP041_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP042_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP043_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP044_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP045_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP046_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP047_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP048_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP049_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP050_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP051_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP052_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP053_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP054_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP055_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP056_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP057_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP058_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP059_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP060_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP061_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP062_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP063_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP064_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP065_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP066_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP067_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP068_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP069_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP070_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP071_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP072_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP073_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP074_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP075_VPE31_0 | 32 | 0 | rw | |

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|-----------------------|----|---|----|--|
| GIC_SH_MAP076_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP077_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP078_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP079_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP080_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP081_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP082_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP083_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP084_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP085_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP086_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP087_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP088_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP089_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP090_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP091_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP092_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP093_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP094_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP095_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP096_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP097_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP098_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP099_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP100_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP101_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP102_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP103_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP104_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP105_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP106_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP107_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP108_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP109_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP110_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP111_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP112_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP113_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP114_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP115_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP116_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP117_VPE31_0 | 32 | 0 | rw | |

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|-----------------------|----|---|----|--|
| GIC_SH_MAP118_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP119_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP120_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP121_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP122_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP123_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP124_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP125_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP126_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP127_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP128_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP129_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP130_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP131_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP132_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP133_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP134_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP135_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP136_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP137_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP138_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP139_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP140_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP141_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP142_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP143_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP144_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP145_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP146_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP147_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP148_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP149_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP150_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP151_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP152_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP153_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP154_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP155_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP156_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP157_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP158_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP159_VPE31_0 | 32 | 0 | rw | |

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|-----------------------|----|---|----|--|
| GIC_SH_MAP160_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP161_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP162_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP163_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP164_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP165_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP166_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP167_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP168_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP169_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP170_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP171_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP172_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP173_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP174_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP175_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP176_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP177_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP178_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP179_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP180_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP181_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP182_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP183_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP184_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP185_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP186_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP187_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP188_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP189_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP190_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP191_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP192_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP193_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP194_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP195_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP196_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP197_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP198_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP199_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP200_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP201_VPE31_0 | 32 | 0 | rw | |

| | | | | |
|-----------------------|----|---|----|--|
| GIC_SH_MAP202_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP203_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP204_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP205_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP206_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP207_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP208_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP209_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP210_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP211_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP212_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP213_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP214_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP215_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP216_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP217_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP218_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP219_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP220_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP221_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP222_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP223_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP224_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP225_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP226_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP227_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP228_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP229_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP230_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP231_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP232_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP233_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP234_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP235_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP236_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP237_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP238_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP239_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP240_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP241_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP242_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP243_VPE31_0 | 32 | 0 | rw | |

| | | | | |
|-------------------------|----|----------|----|--|
| GIC_SH_MAP244_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP245_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP246_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP247_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP248_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP249_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP250_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP251_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP252_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP253_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP254_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP255_VPE31_0 | 32 | 0 | rw | |
| GIC_VB_DINT_SEND | 32 | 0 | -w | |
| GIC_VPE_CTL_L | 32 | a | rw | |
| GIC_VPE_PEND_L | 32 | 0 | r- | |
| GIC_VPE_MASK_L | 32 | 7f | r- | |
| GIC_VPE_RMASK_L | 32 | 0 | -w | |
| GIC_VPE_SMASK_L | 32 | 0 | -w | |
| GIC_VPE_WD_MAP_L | 32 | 40000000 | rw | |
| GIC_VPE_COMPARE_MAP_L | 32 | 0 | rw | |
| GIC_VPE_TIMER_MAP_L | 32 | 80000005 | rw | |
| GIC_VPE_FDC_MAP_L | 32 | 8000003e | rw | |
| GIC_VPE_PERFCTR_MAP_L | 32 | 80000005 | rw | |
| GIC_VPE_SWInt0_MAP_L | 32 | 80000000 | rw | |
| GIC_VPE_SWInt1_MAP_L | 32 | 80000000 | rw | |
| GIC_VPE_OTHER_ADDRESS_L | 32 | 0 | rw | |
| GIC_VPE_IDENT_L | 32 | 0 | r- | |
| GIC_VPE_WD_CONFIG_L | 32 | 0 | rw | |
| GIC_VPE_WD_COUNT_L | 32 | 0 | r- | |
| GIC_VPE_WD_INITIAL_L | 32 | 0 | rw | |
| GIC_VPE_CompareLo_L | 32 | fffffff | rw | |
| GIC_VPE_CompareHi_L | 32 | fffffff | rw | |
| GIC_VPE_EICSS00_L | 32 | 0 | rw | |
| GIC_VPE_EICSS01_L | 32 | 0 | rw | |
| GIC_VPE_EICSS02_L | 32 | 0 | rw | |
| GIC_VPE_EICSS03_L | 32 | 0 | rw | |
| GIC_VPE_EICSS04_L | 32 | 0 | rw | |
| GIC_VPE_EICSS05_L | 32 | 0 | rw | |
| GIC_VPE_EICSS06_L | 32 | 0 | rw | |
| GIC_VPE_EICSS07_L | 32 | 0 | rw | |
| GIC_VPE_EICSS08_L | 32 | 0 | rw | |
| GIC_VPE_EICSS09_L | 32 | 0 | rw | |

| | | | | |
|-------------------|----|---|----|--|
| GIC_VPE_EICSS10_L | 32 | 0 | rw | |
| GIC_VPE_EICSS11_L | 32 | 0 | rw | |
| GIC_VPE_EICSS12_L | 32 | 0 | rw | |
| GIC_VPE_EICSS13_L | 32 | 0 | rw | |
| GIC_VPE_EICSS14_L | 32 | 0 | rw | |
| GIC_VPE_EICSS15_L | 32 | 0 | rw | |
| GIC_VPE_EICSS16_L | 32 | 0 | rw | |
| GIC_VPE_EICSS17_L | 32 | 0 | rw | |
| GIC_VPE_EICSS18_L | 32 | 0 | rw | |
| GIC_VPE_EICSS19_L | 32 | 0 | rw | |
| GIC_VPE_EICSS20_L | 32 | 0 | rw | |
| GIC_VPE_EICSS21_L | 32 | 0 | rw | |
| GIC_VPE_EICSS22_L | 32 | 0 | rw | |
| GIC_VPE_EICSS23_L | 32 | 0 | rw | |
| GIC_VPE_EICSS24_L | 32 | 0 | rw | |
| GIC_VPE_EICSS25_L | 32 | 0 | rw | |
| GIC_VPE_EICSS26_L | 32 | 0 | rw | |
| GIC_VPE_EICSS27_L | 32 | 0 | rw | |
| GIC_VPE_EICSS28_L | 32 | 0 | rw | |
| GIC_VPE_EICSS29_L | 32 | 0 | rw | |
| GIC_VPE_EICSS30_L | 32 | 0 | rw | |
| GIC_VPE_EICSS31_L | 32 | 0 | rw | |
| GIC_VPE_EICSS32_L | 32 | 0 | rw | |
| GIC_VPE_EICSS33_L | 32 | 0 | rw | |
| GIC_VPE_EICSS34_L | 32 | 0 | rw | |
| GIC_VPE_EICSS35_L | 32 | 0 | rw | |
| GIC_VPE_EICSS36_L | 32 | 0 | rw | |
| GIC_VPE_EICSS37_L | 32 | 0 | rw | |
| GIC_VPE_EICSS38_L | 32 | 0 | rw | |
| GIC_VPE_EICSS39_L | 32 | 0 | rw | |
| GIC_VPE_EICSS40_L | 32 | 0 | rw | |
| GIC_VPE_EICSS41_L | 32 | 0 | rw | |
| GIC_VPE_EICSS42_L | 32 | 0 | rw | |
| GIC_VPE_EICSS43_L | 32 | 0 | rw | |
| GIC_VPE_EICSS44_L | 32 | 0 | rw | |
| GIC_VPE_EICSS45_L | 32 | 0 | rw | |
| GIC_VPE_EICSS46_L | 32 | 0 | rw | |
| GIC_VPE_EICSS47_L | 32 | 0 | rw | |
| GIC_VPE_EICSS48_L | 32 | 0 | rw | |
| GIC_VPE_EICSS49_L | 32 | 0 | rw | |
| GIC_VPE_EICSS50_L | 32 | 0 | rw | |
| GIC_VPE_EICSS51_L | 32 | 0 | rw | |

| | | | |
|-------------------------|----|----------|----|
| GIC_VPE_EICSS52_L | 32 | 0 | rw |
| GIC_VPE_EICSS53_L | 32 | 0 | rw |
| GIC_VPE_EICSS54_L | 32 | 0 | rw |
| GIC_VPE_EICSS55_L | 32 | 0 | rw |
| GIC_VPE_EICSS56_L | 32 | 0 | rw |
| GIC_VPE_EICSS57_L | 32 | 0 | rw |
| GIC_VPE_EICSS58_L | 32 | 0 | rw |
| GIC_VPE_EICSS59_L | 32 | 0 | rw |
| GIC_VPE_EICSS60_L | 32 | 0 | rw |
| GIC_VPE_EICSS61_L | 32 | 0 | rw |
| GIC_VPE_EICSS62_L | 32 | 0 | rw |
| GIC_VPE_EICSS63_L | 32 | 0 | rw |
| GIC_Vx_DINT_PART_L | 32 | 1 | rw |
| GIC_Cx_BRK_GROUP_L | 32 | 0 | rw |
| GIC_VPE_CTL_O | 32 | a | rw |
| GIC_VPE_PEND_O | 32 | 0 | r- |
| GIC_VPE_MASK_O | 32 | 7f | r- |
| GIC_VPE_RMASK_O | 32 | 0 | -w |
| GIC_VPE_SMASK_O | 32 | 0 | -w |
| GIC_VPE_WD_MAP_O | 32 | 40000000 | rw |
| GIC_VPE_COMPARE_MAP_O | 32 | 0 | rw |
| GIC_VPE_TIMER_MAP_O | 32 | 80000005 | rw |
| GIC_VPE_FDC_MAP_O | 32 | 8000003e | rw |
| GIC_VPE_PERFCTR_MAP_O | 32 | 80000005 | rw |
| GIC_VPE_SWInt0_MAP_O | 32 | 80000000 | rw |
| GIC_VPE_SWInt1_MAP_O | 32 | 80000000 | rw |
| GIC_VPE_OTHER_ADDRESS_O | 32 | 0 | rw |
| GIC_VPE_IDENT_O | 32 | 0 | r- |
| GIC_VPE_WD_CONFIG_O | 32 | 0 | rw |
| GIC_VPE_WD_COUNT_O | 32 | 0 | r- |
| GIC_VPE_WD_INITIAL_O | 32 | 0 | rw |
| GIC_VPE_CompareLo_O | 32 | ffffff | rw |
| GIC_VPE_CompareHi_O | 32 | ffffff | rw |
| GIC_VPE_EICSS00_O | 32 | 0 | rw |
| GIC_VPE_EICSS01_O | 32 | 0 | rw |
| GIC_VPE_EICSS02_O | 32 | 0 | rw |
| GIC_VPE_EICSS03_O | 32 | 0 | rw |
| GIC_VPE_EICSS04_O | 32 | 0 | rw |
| GIC_VPE_EICSS05_O | 32 | 0 | rw |
| GIC_VPE_EICSS06_O | 32 | 0 | rw |
| GIC_VPE_EICSS07_O | 32 | 0 | rw |
| GIC_VPE_EICSS08_O | 32 | 0 | rw |

| | | | | |
|-------------------|----|---|----|--|
| GIC_VPE_EICSS09_O | 32 | 0 | rw | |
| GIC_VPE_EICSS10_O | 32 | 0 | rw | |
| GIC_VPE_EICSS11_O | 32 | 0 | rw | |
| GIC_VPE_EICSS12_O | 32 | 0 | rw | |
| GIC_VPE_EICSS13_O | 32 | 0 | rw | |
| GIC_VPE_EICSS14_O | 32 | 0 | rw | |
| GIC_VPE_EICSS15_O | 32 | 0 | rw | |
| GIC_VPE_EICSS16_O | 32 | 0 | rw | |
| GIC_VPE_EICSS17_O | 32 | 0 | rw | |
| GIC_VPE_EICSS18_O | 32 | 0 | rw | |
| GIC_VPE_EICSS19_O | 32 | 0 | rw | |
| GIC_VPE_EICSS20_O | 32 | 0 | rw | |
| GIC_VPE_EICSS21_O | 32 | 0 | rw | |
| GIC_VPE_EICSS22_O | 32 | 0 | rw | |
| GIC_VPE_EICSS23_O | 32 | 0 | rw | |
| GIC_VPE_EICSS24_O | 32 | 0 | rw | |
| GIC_VPE_EICSS25_O | 32 | 0 | rw | |
| GIC_VPE_EICSS26_O | 32 | 0 | rw | |
| GIC_VPE_EICSS27_O | 32 | 0 | rw | |
| GIC_VPE_EICSS28_O | 32 | 0 | rw | |
| GIC_VPE_EICSS29_O | 32 | 0 | rw | |
| GIC_VPE_EICSS30_O | 32 | 0 | rw | |
| GIC_VPE_EICSS31_O | 32 | 0 | rw | |
| GIC_VPE_EICSS32_O | 32 | 0 | rw | |
| GIC_VPE_EICSS33_O | 32 | 0 | rw | |
| GIC_VPE_EICSS34_O | 32 | 0 | rw | |
| GIC_VPE_EICSS35_O | 32 | 0 | rw | |
| GIC_VPE_EICSS36_O | 32 | 0 | rw | |
| GIC_VPE_EICSS37_O | 32 | 0 | rw | |
| GIC_VPE_EICSS38_O | 32 | 0 | rw | |
| GIC_VPE_EICSS39_O | 32 | 0 | rw | |
| GIC_VPE_EICSS40_O | 32 | 0 | rw | |
| GIC_VPE_EICSS41_O | 32 | 0 | rw | |
| GIC_VPE_EICSS42_O | 32 | 0 | rw | |
| GIC_VPE_EICSS43_O | 32 | 0 | rw | |
| GIC_VPE_EICSS44_O | 32 | 0 | rw | |
| GIC_VPE_EICSS45_O | 32 | 0 | rw | |
| GIC_VPE_EICSS46_O | 32 | 0 | rw | |
| GIC_VPE_EICSS47_O | 32 | 0 | rw | |
| GIC_VPE_EICSS48_O | 32 | 0 | rw | |
| GIC_VPE_EICSS49_O | 32 | 0 | rw | |
| GIC_VPE_EICSS50_O | 32 | 0 | rw | |

| | | | | |
|--------------------|----|---|----|--|
| GIC_VPE_EICSS51_O | 32 | 0 | rw | |
| GIC_VPE_EICSS52_O | 32 | 0 | rw | |
| GIC_VPE_EICSS53_O | 32 | 0 | rw | |
| GIC_VPE_EICSS54_O | 32 | 0 | rw | |
| GIC_VPE_EICSS55_O | 32 | 0 | rw | |
| GIC_VPE_EICSS56_O | 32 | 0 | rw | |
| GIC_VPE_EICSS57_O | 32 | 0 | rw | |
| GIC_VPE_EICSS58_O | 32 | 0 | rw | |
| GIC_VPE_EICSS59_O | 32 | 0 | rw | |
| GIC_VPE_EICSS60_O | 32 | 0 | rw | |
| GIC_VPE_EICSS61_O | 32 | 0 | rw | |
| GIC_VPE_EICSS62_O | 32 | 0 | rw | |
| GIC_VPE_EICSS63_O | 32 | 0 | rw | |
| GIC_Vx_DINT_PART_O | 32 | 1 | rw | |
| GIC_Cx_BRK_GROUP_O | 32 | 0 | rw | |
| GIC_CounterLoUser | 32 | 0 | r- | |
| GIC_CounterHiUser | 32 | 0 | r- | |

12.4 Level 4: TC

12.4.1 Core

Table 17.

| Name | Bits | Initial value (Hex) | | Description |
|------|------|---------------------|----|---------------|
| zero | 32 | 0 | r- | constant zero |
| at | 32 | 0 | rw | |
| v0 | 32 | 0 | rw | |
| v1 | 32 | 0 | rw | |
| a0 | 32 | 0 | rw | |
| a1 | 32 | 0 | rw | |
| a2 | 32 | 0 | rw | |
| a3 | 32 | 0 | rw | |
| t0 | 32 | 0 | rw | |
| t1 | 32 | 0 | rw | |
| t2 | 32 | 0 | rw | |
| t3 | 32 | 0 | rw | |
| t4 | 32 | 0 | rw | |
| t5 | 32 | 0 | rw | |
| t6 | 32 | 0 | rw | |
| t7 | 32 | 0 | rw | |
| s0 | 32 | 0 | rw | |
| s1 | 32 | 0 | rw | |
| s2 | 32 | 0 | rw | |

| | | | | |
|----|----|----------|----|-----------------|
| s3 | 32 | 0 | rw | |
| s4 | 32 | 0 | rw | |
| s5 | 32 | 0 | rw | |
| s6 | 32 | 0 | rw | |
| s7 | 32 | 0 | rw | |
| t8 | 32 | 0 | rw | |
| t9 | 32 | 0 | rw | |
| k0 | 32 | 0 | rw | |
| k1 | 32 | 0 | rw | |
| gp | 32 | 0 | rw | |
| sp | 32 | 0 | rw | stack pointer |
| s8 | 32 | 0 | rw | frame pointer |
| ra | 32 | 0 | rw | |
| pc | 32 | bfc00000 | rw | program counter |

12.4.2 DSP

Table 18.

| Name | Bits | Initial value (Hex) | | Description |
|--------|------|---------------------|----|-------------|
| lo | 32 | 0 | rw | |
| hi | 32 | 0 | rw | |
| lo1 | 32 | 0 | rw | |
| hi1 | 32 | 0 | rw | |
| lo2 | 32 | 0 | rw | |
| hi2 | 32 | 0 | rw | |
| lo3 | 32 | 0 | rw | |
| hi3 | 32 | 0 | rw | |
| dspctl | 32 | 0 | rw | DSP control |

12.4.3 COP0

Table 19.

| Name | Bits | Initial value (Hex) | | Description |
|------------|------|---------------------|----|------------------------------|
| sr | 32 | 400004 | rw | CP0 register 12/0 (status) |
| bad | 32 | 0 | rw | CP0 register 8/0 (badvaaddr) |
| cause | 32 | 0 | rw | CP0 register 13/0 (cause) |
| index | 32 | 0 | rw | CP0 register 0/0 |
| mvpcontrol | 32 | 0 | rw | CP0 register 0/1 |
| mvpcnf0 | 32 | 88008401 | rw | CP0 register 0/2 |
| mvpcnf1 | 32 | 0 | rw | CP0 register 0/3 |
| random | 32 | 0 | rw | CP0 register 1/0 |
| vpecontrol | 32 | 0 | rw | CP0 register 1/1 |

| | | | | |
|-------------|----|----------|----|-------------------|
| vpeconf0 | 32 | 80000003 | rw | CP0 register 1/2 |
| vpeconf1 | 32 | 0 | rw | CP0 register 1/3 |
| yqmask | 32 | 0 | rw | CP0 register 1/4 |
| vpeschedule | 32 | 0 | rw | CP0 register 1/5 |
| vpescheback | 32 | 0 | rw | CP0 register 1/6 |
| vpeopt | 32 | 0 | rw | CP0 register 1/7 |
| entrylo0 | 32 | 0 | rw | CP0 register 2/0 |
| tcstatus | 32 | 2000 | rw | CP0 register 2/1 |
| tcbind | 32 | 0 | rw | CP0 register 2/2 |
| tcrestart | 32 | 0 | rw | CP0 register 2/3 |
| tchalt | 32 | 0 | rw | CP0 register 2/4 |
| tccontext | 32 | 0 | rw | CP0 register 2/5 |
| tcschedule | 32 | 0 | rw | CP0 register 2/6 |
| tcscheback | 32 | 0 | rw | CP0 register 2/7 |
| entrylo1 | 32 | 0 | rw | CP0 register 3/0 |
| tcopt | 32 | 0 | rw | CP0 register 3/7 |
| context | 32 | 0 | rw | CP0 register 4/0 |
| userlocal | 32 | 0 | rw | CP0 register 4/2 |
| pagemask | 32 | 0 | rw | CP0 register 5/0 |
| wired | 32 | 0 | rw | CP0 register 6/0 |
| srsconf0 | 32 | 3fffffff | rw | CP0 register 6/1 |
| hwrena | 32 | 0 | rw | CP0 register 7/0 |
| badvaddr | 32 | 0 | rw | CP0 register 8/0 |
| count | 32 | 0 | rw | CP0 register 9/0 |
| entryhi | 32 | 0 | rw | CP0 register 10/0 |
| compare | 32 | 0 | rw | CP0 register 11/0 |
| status | 32 | 400004 | rw | CP0 register 12/0 |
| intctl | 32 | e0000000 | rw | CP0 register 12/1 |
| srsctl | 32 | 0 | rw | CP0 register 12/2 |
| srsmap | 32 | 0 | rw | CP0 register 12/3 |
| epc | 32 | 0 | rw | CP0 register 14/0 |
| prid | 32 | 19900 | rw | CP0 register 15/0 |
| ebase | 32 | 80000000 | rw | CP0 register 15/1 |
| cmgcrbase | 32 | 1fbf800 | rw | CP0 register 15/3 |
| config | 32 | 80048482 | rw | CP0 register 16/0 |
| config1 | 32 | 9e231186 | rw | CP0 register 16/1 |
| config2 | 32 | 80000000 | rw | CP0 register 16/2 |
| config3 | 32 | 20002424 | rw | CP0 register 16/3 |
| config7 | 32 | 80080100 | rw | CP0 register 16/7 |
| lladdr | 32 | 0 | rw | CP0 register 17/0 |
| debug | 32 | 2028000 | rw | CP0 register 23/0 |
| depc | 32 | 0 | rw | CP0 register 24/0 |

| | | | | |
|-----------|----|---|----|-------------------|
| errctl | 32 | 0 | rw | CP0 register 26/0 |
| itaglo | 32 | 0 | rw | CP0 register 28/0 |
| idatalo | 32 | 0 | rw | CP0 register 28/1 |
| dtaglo | 32 | 0 | rw | CP0 register 28/2 |
| ddatalo | 32 | 0 | rw | CP0 register 28/3 |
| l23taglo | 32 | 0 | rw | CP0 register 28/4 |
| l23datalo | 32 | 0 | rw | CP0 register 28/5 |
| itaghi | 32 | 0 | rw | CP0 register 29/0 |
| idatahi | 32 | 0 | rw | CP0 register 29/1 |
| dtaghi | 32 | 0 | rw | CP0 register 29/2 |
| l23datahi | 32 | 0 | rw | CP0 register 29/5 |
| errorepc | 32 | 0 | rw | CP0 register 30/0 |
| desave | 32 | 0 | rw | CP0 register 31/0 |

12.4.4 CMP_GCR

Table 20.

| Name | Bits | Initial value (Hex) | | Description |
|------------------------|------|---------------------|----|-------------|
| GCR_CONFIG | 32 | 3 | r- | |
| GCR_BASE | 32 | 1fbf8000 | rw | |
| GCR_CONTROL | 32 | 10001 | rw | |
| GCR_ACCESS | 32 | ff | rw | |
| GCR_REV | 32 | 0 | r- | |
| GCR_ERROR_MASK | 32 | 0 | rw | |
| GCR_ERROR_CAUSE | 32 | 0 | rw | |
| GCR_ERROR_ADDR | 32 | 0 | rw | |
| GCR_ERROR_MULT | 32 | 0 | rw | |
| GCR_GIC_BASE | 32 | 0 | rw | |
| GCR_CPC_BASE | 32 | 0 | rw | |
| GCR_GIC_STATUS | 32 | 1 | r- | |
| GCR_CACHE_REV | 32 | 0 | r- | |
| GCR_CPC_STATUS | 32 | 1 | r- | |
| GCR_IOCU1_REV | 32 | 0 | r- | |
| GCR_CL_RESET_RELEASE_L | 32 | 0 | -w | |
| GCR_CL_COHERENCE_L | 32 | 0 | rw | |
| GCR_CL_CONFIG_L | 32 | 1 | r- | |
| GCR_CL_OTHER_L | 32 | 0 | rw | |
| GCR_CL_RESET_BASE_L | 32 | bfc00000 | rw | |
| GCR_CL_ID_L | 32 | 0 | r- | |
| GCR_CL_RESET_RELEASE_O | 32 | 0 | -w | |
| GCR_CL_COHERENCE_O | 32 | 0 | rw | |
| GCR_CL_CONFIG_O | 32 | 1 | r- | |

| | | | | |
|---------------------|----|----------|----|--|
| GCR_CL_OTHER_O | 32 | 0 | rw | |
| GCR_CL_RESET_BASE_O | 32 | bfc00000 | rw | |
| GCR_CL_ID_O | 32 | 0 | r- | |

12.4.5 CMP_CPC

Table 21.

| Name | Bits | Initial value (Hex) | | Description |
|-----------------|------|---------------------|----|-------------|
| CPC_ACCESS | 32 | ff | rw | |
| CPC_SEQDEL | 32 | 0 | rw | |
| CPC_RAIL | 32 | 0 | rw | |
| CPC_RESETLEN | 32 | 0 | rw | |
| CPC_REVISION | 32 | 0 | r- | |
| CPC_CMD_L | 32 | 0 | rw | |
| CPC_STAT_CONF_L | 32 | 380200 | rw | |
| CPC_OTHER_L | 32 | 0 | rw | |
| CPC_CMD_O | 32 | 0 | rw | |
| CPC_STAT_CONF_O | 32 | 380200 | rw | |
| CPC_OTHER_O | 32 | 0 | rw | |

12.4.6 CMP_GIC

Table 22.

| Name | Bits | Initial value (Hex) | | Description |
|--------------------|------|---------------------|----|-------------|
| GIC_SH_CONFIG | 32 | 8040007 | rw | |
| GIC_CounterLo | 32 | 0 | rw | |
| GIC_CounterHi | 32 | 0 | rw | |
| GIC_SH_REVISION | 32 | 0 | r- | |
| GIC_SH_POL31_0 | 32 | 0 | rw | |
| GIC_SH_POL63_32 | 32 | 0 | rw | |
| GIC_SH_POL95_64 | 32 | 0 | rw | |
| GIC_SH_POL127_96 | 32 | 0 | rw | |
| GIC_SH_POL159_128 | 32 | 0 | rw | |
| GIC_SH_POL191_160 | 32 | 0 | rw | |
| GIC_SH_POL223_192 | 32 | 0 | rw | |
| GIC_SH_POL255_224 | 32 | 0 | rw | |
| GIC_SH_TRIG31_0 | 32 | 0 | rw | |
| GIC_SH_TRIG63_32 | 32 | 0 | rw | |
| GIC_SH_TRIG95_64 | 32 | 0 | rw | |
| GIC_SH_TRIG127_96 | 32 | 0 | rw | |
| GIC_SH_TRIG159_128 | 32 | 0 | rw | |
| GIC_SH_TRIG191_160 | 32 | 0 | rw | |

| | | | | |
|---------------------|----|---|----|--|
| GIC_SH_TRIG223_192 | 32 | 0 | rw | |
| GIC_SH_TRIG255_224 | 32 | 0 | rw | |
| GIC_SH_DUAL31_0 | 32 | 0 | rw | |
| GIC_SH_DUAL63_32 | 32 | 0 | rw | |
| GIC_SH_DUAL95_64 | 32 | 0 | rw | |
| GIC_SH_DUAL127_96 | 32 | 0 | rw | |
| GIC_SH_DUAL159_128 | 32 | 0 | rw | |
| GIC_SH_DUAL191_160 | 32 | 0 | rw | |
| GIC_SH_DUAL223_192 | 32 | 0 | rw | |
| GIC_SH_DUAL255_224 | 32 | 0 | rw | |
| GIC_SH_WEDGE | 32 | 0 | -w | |
| GIC_SH_RMASK31_0 | 32 | 0 | -w | |
| GIC_SH_RMASK63_32 | 32 | 0 | -w | |
| GIC_SH_RMASK95_64 | 32 | 0 | -w | |
| GIC_SH_RMASK127_96 | 32 | 0 | -w | |
| GIC_SH_RMASK159_128 | 32 | 0 | -w | |
| GIC_SH_RMASK191_160 | 32 | 0 | -w | |
| GIC_SH_RMASK223_192 | 32 | 0 | -w | |
| GIC_SH_RMASK255_224 | 32 | 0 | -w | |
| GIC_SH_SMASK31_0 | 32 | 0 | -w | |
| GIC_SH_SMASK63_32 | 32 | 0 | -w | |
| GIC_SH_SMASK95_64 | 32 | 0 | -w | |
| GIC_SH_SMASK127_96 | 32 | 0 | -w | |
| GIC_SH_SMASK159_128 | 32 | 0 | -w | |
| GIC_SH_SMASK191_160 | 32 | 0 | -w | |
| GIC_SH_SMASK223_192 | 32 | 0 | -w | |
| GIC_SH_SMASK255_224 | 32 | 0 | -w | |
| GIC_SH_MASK31_0 | 32 | 0 | r- | |
| GIC_SH_MASK63_32 | 32 | 0 | r- | |
| GIC_SH_MASK95_64 | 32 | 0 | r- | |
| GIC_SH_MASK127_96 | 32 | 0 | r- | |
| GIC_SH_MASK159_128 | 32 | 0 | r- | |
| GIC_SH_MASK191_160 | 32 | 0 | r- | |
| GIC_SH_MASK223_192 | 32 | 0 | r- | |
| GIC_SH_MASK255_224 | 32 | 0 | r- | |
| GIC_SH_PEND31_0 | 32 | 0 | r- | |
| GIC_SH_PEND63_32 | 32 | 0 | r- | |
| GIC_SH_PEND95_64 | 32 | 0 | r- | |
| GIC_SH_PEND127_96 | 32 | 0 | r- | |
| GIC_SH_PEND159_128 | 32 | 0 | r- | |
| GIC_SH_PEND191_160 | 32 | 0 | r- | |
| GIC_SH_PEND223_192 | 32 | 0 | r- | |

| | | | | |
|--------------------|----|----------|----|--|
| GIC_SH_PEND255_224 | 32 | 0 | r- | |
| GIC_SH_MAP000_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP001_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP002_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP003_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP004_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP005_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP006_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP007_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP008_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP009_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP010_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP011_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP012_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP013_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP014_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP015_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP016_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP017_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP018_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP019_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP020_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP021_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP022_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP023_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP024_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP025_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP026_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP027_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP028_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP029_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP030_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP031_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP032_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP033_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP034_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP035_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP036_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP037_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP038_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP039_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP040_PIN | 32 | 80000000 | rw | |

| | | | | |
|-------------------|----|----------|----|--|
| GIC_SH_MAP041_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP042_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP043_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP044_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP045_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP046_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP047_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP048_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP049_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP050_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP051_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP052_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP053_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP054_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP055_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP056_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP057_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP058_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP059_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP060_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP061_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP062_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP063_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP064_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP065_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP066_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP067_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP068_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP069_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP070_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP071_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP072_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP073_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP074_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP075_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP076_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP077_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP078_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP079_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP080_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP081_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP082_PIN | 32 | 80000000 | rw | |

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|-------------------|----|----------|----|--|
| GIC_SH_MAP083_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP084_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP085_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP086_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP087_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP088_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP089_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP090_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP091_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP092_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP093_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP094_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP095_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP096_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP097_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP098_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP099_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP100_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP101_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP102_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP103_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP104_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP105_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP106_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP107_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP108_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP109_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP110_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP111_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP112_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP113_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP114_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP115_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP116_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP117_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP118_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP119_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP120_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP121_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP122_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP123_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP124_PIN | 32 | 80000000 | rw | |

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|-------------------|----|----------|----|--|
| GIC_SH_MAP125_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP126_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP127_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP128_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP129_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP130_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP131_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP132_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP133_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP134_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP135_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP136_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP137_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP138_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP139_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP140_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP141_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP142_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP143_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP144_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP145_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP146_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP147_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP148_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP149_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP150_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP151_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP152_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP153_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP154_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP155_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP156_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP157_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP158_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP159_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP160_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP161_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP162_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP163_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP164_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP165_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP166_PIN | 32 | 80000000 | rw | |

| | | | | |
|-------------------|----|----------|----|--|
| GIC_SH_MAP167_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP168_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP169_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP170_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP171_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP172_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP173_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP174_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP175_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP176_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP177_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP178_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP179_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP180_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP181_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP182_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP183_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP184_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP185_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP186_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP187_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP188_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP189_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP190_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP191_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP192_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP193_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP194_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP195_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP196_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP197_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP198_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP199_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP200_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP201_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP202_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP203_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP204_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP205_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP206_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP207_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP208_PIN | 32 | 80000000 | rw | |

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|-------------------|----|----------|----|--|
| GIC_SH_MAP209_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP210_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP211_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP212_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP213_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP214_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP215_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP216_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP217_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP218_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP219_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP220_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP221_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP222_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP223_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP224_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP225_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP226_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP227_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP228_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP229_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP230_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP231_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP232_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP233_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP234_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP235_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP236_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP237_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP238_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP239_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP240_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP241_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP242_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP243_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP244_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP245_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP246_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP247_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP248_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP249_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP250_PIN | 32 | 80000000 | rw | |

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|-----------------------|----|----------|----|--|
| GIC_SH_MAP251_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP252_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP253_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP254_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP255_PIN | 32 | 80000000 | rw | |
| GIC_SH_MAP000_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP001_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP002_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP003_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP004_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP005_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP006_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP007_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP008_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP009_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP010_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP011_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP012_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP013_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP014_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP015_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP016_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP017_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP018_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP019_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP020_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP021_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP022_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP023_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP024_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP025_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP026_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP027_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP028_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP029_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP030_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP031_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP032_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP033_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP034_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP035_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP036_VPE31_0 | 32 | 0 | rw | |

| | | | | |
|-----------------------|----|---|----|--|
| GIC_SH_MAP037_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP038_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP039_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP040_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP041_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP042_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP043_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP044_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP045_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP046_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP047_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP048_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP049_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP050_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP051_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP052_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP053_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP054_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP055_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP056_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP057_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP058_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP059_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP060_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP061_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP062_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP063_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP064_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP065_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP066_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP067_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP068_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP069_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP070_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP071_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP072_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP073_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP074_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP075_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP076_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP077_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP078_VPE31_0 | 32 | 0 | rw | |

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|-----------------------|----|---|----|--|
| GIC_SH_MAP079_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP080_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP081_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP082_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP083_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP084_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP085_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP086_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP087_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP088_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP089_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP090_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP091_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP092_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP093_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP094_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP095_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP096_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP097_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP098_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP099_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP100_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP101_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP102_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP103_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP104_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP105_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP106_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP107_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP108_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP109_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP110_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP111_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP112_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP113_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP114_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP115_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP116_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP117_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP118_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP119_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP120_VPE31_0 | 32 | 0 | rw | |

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|-----------------------|----|---|----|--|
| GIC_SH_MAP121_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP122_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP123_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP124_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP125_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP126_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP127_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP128_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP129_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP130_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP131_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP132_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP133_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP134_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP135_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP136_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP137_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP138_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP139_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP140_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP141_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP142_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP143_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP144_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP145_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP146_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP147_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP148_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP149_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP150_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP151_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP152_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP153_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP154_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP155_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP156_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP157_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP158_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP159_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP160_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP161_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP162_VPE31_0 | 32 | 0 | rw | |

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|-----------------------|----|---|----|--|
| GIC_SH_MAP163_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP164_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP165_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP166_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP167_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP168_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP169_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP170_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP171_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP172_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP173_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP174_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP175_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP176_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP177_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP178_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP179_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP180_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP181_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP182_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP183_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP184_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP185_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP186_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP187_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP188_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP189_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP190_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP191_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP192_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP193_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP194_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP195_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP196_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP197_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP198_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP199_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP200_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP201_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP202_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP203_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP204_VPE31_0 | 32 | 0 | rw | |

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|-----------------------|----|---|----|--|
| GIC_SH_MAP205_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP206_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP207_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP208_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP209_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP210_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP211_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP212_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP213_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP214_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP215_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP216_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP217_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP218_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP219_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP220_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP221_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP222_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP223_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP224_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP225_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP226_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP227_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP228_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP229_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP230_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP231_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP232_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP233_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP234_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP235_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP236_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP237_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP238_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP239_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP240_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP241_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP242_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP243_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP244_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP245_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP246_VPE31_0 | 32 | 0 | rw | |

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|-------------------------|----|----------|----|--|
| GIC_SH_MAP247_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP248_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP249_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP250_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP251_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP252_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP253_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP254_VPE31_0 | 32 | 0 | rw | |
| GIC_SH_MAP255_VPE31_0 | 32 | 0 | rw | |
| GIC_VB_DINT_SEND | 32 | 0 | -w | |
| GIC_VPE_CTL_L | 32 | a | rw | |
| GIC_VPE_PEND_L | 32 | 0 | r- | |
| GIC_VPE_MASK_L | 32 | 7f | r- | |
| GIC_VPE_RMASK_L | 32 | 0 | -w | |
| GIC_VPE_SMASK_L | 32 | 0 | -w | |
| GIC_VPE_WD_MAP_L | 32 | 40000000 | rw | |
| GIC_VPE_COMPARE_MAP_L | 32 | 0 | rw | |
| GIC_VPE_TIMER_MAP_L | 32 | 80000005 | rw | |
| GIC_VPE_FDC_MAP_L | 32 | 8000003e | rw | |
| GIC_VPE_PERFCTR_MAP_L | 32 | 80000005 | rw | |
| GIC_VPE_SWInt0_MAP_L | 32 | 80000000 | rw | |
| GIC_VPE_SWInt1_MAP_L | 32 | 80000000 | rw | |
| GIC_VPE_OTHER_ADDRESS_L | 32 | 0 | rw | |
| GIC_VPE_IDENT_L | 32 | 0 | r- | |
| GIC_VPE_WD_CONFIG_L | 32 | 0 | rw | |
| GIC_VPE_WD_COUNT_L | 32 | 0 | r- | |
| GIC_VPE_WD_INITIAL_L | 32 | 0 | rw | |
| GIC_VPE_CompareLo_L | 32 | fffffff | rw | |
| GIC_VPE_CompareHi_L | 32 | fffffff | rw | |
| GIC_VPE_EICSS00_L | 32 | 0 | rw | |
| GIC_VPE_EICSS01_L | 32 | 0 | rw | |
| GIC_VPE_EICSS02_L | 32 | 0 | rw | |
| GIC_VPE_EICSS03_L | 32 | 0 | rw | |
| GIC_VPE_EICSS04_L | 32 | 0 | rw | |
| GIC_VPE_EICSS05_L | 32 | 0 | rw | |
| GIC_VPE_EICSS06_L | 32 | 0 | rw | |
| GIC_VPE_EICSS07_L | 32 | 0 | rw | |
| GIC_VPE_EICSS08_L | 32 | 0 | rw | |
| GIC_VPE_EICSS09_L | 32 | 0 | rw | |
| GIC_VPE_EICSS10_L | 32 | 0 | rw | |
| GIC_VPE_EICSS11_L | 32 | 0 | rw | |
| GIC_VPE_EICSS12_L | 32 | 0 | rw | |

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|-------------------|----|---|----|--|
| GIC_VPE_EICSS13_L | 32 | 0 | rw | |
| GIC_VPE_EICSS14_L | 32 | 0 | rw | |
| GIC_VPE_EICSS15_L | 32 | 0 | rw | |
| GIC_VPE_EICSS16_L | 32 | 0 | rw | |
| GIC_VPE_EICSS17_L | 32 | 0 | rw | |
| GIC_VPE_EICSS18_L | 32 | 0 | rw | |
| GIC_VPE_EICSS19_L | 32 | 0 | rw | |
| GIC_VPE_EICSS20_L | 32 | 0 | rw | |
| GIC_VPE_EICSS21_L | 32 | 0 | rw | |
| GIC_VPE_EICSS22_L | 32 | 0 | rw | |
| GIC_VPE_EICSS23_L | 32 | 0 | rw | |
| GIC_VPE_EICSS24_L | 32 | 0 | rw | |
| GIC_VPE_EICSS25_L | 32 | 0 | rw | |
| GIC_VPE_EICSS26_L | 32 | 0 | rw | |
| GIC_VPE_EICSS27_L | 32 | 0 | rw | |
| GIC_VPE_EICSS28_L | 32 | 0 | rw | |
| GIC_VPE_EICSS29_L | 32 | 0 | rw | |
| GIC_VPE_EICSS30_L | 32 | 0 | rw | |
| GIC_VPE_EICSS31_L | 32 | 0 | rw | |
| GIC_VPE_EICSS32_L | 32 | 0 | rw | |
| GIC_VPE_EICSS33_L | 32 | 0 | rw | |
| GIC_VPE_EICSS34_L | 32 | 0 | rw | |
| GIC_VPE_EICSS35_L | 32 | 0 | rw | |
| GIC_VPE_EICSS36_L | 32 | 0 | rw | |
| GIC_VPE_EICSS37_L | 32 | 0 | rw | |
| GIC_VPE_EICSS38_L | 32 | 0 | rw | |
| GIC_VPE_EICSS39_L | 32 | 0 | rw | |
| GIC_VPE_EICSS40_L | 32 | 0 | rw | |
| GIC_VPE_EICSS41_L | 32 | 0 | rw | |
| GIC_VPE_EICSS42_L | 32 | 0 | rw | |
| GIC_VPE_EICSS43_L | 32 | 0 | rw | |
| GIC_VPE_EICSS44_L | 32 | 0 | rw | |
| GIC_VPE_EICSS45_L | 32 | 0 | rw | |
| GIC_VPE_EICSS46_L | 32 | 0 | rw | |
| GIC_VPE_EICSS47_L | 32 | 0 | rw | |
| GIC_VPE_EICSS48_L | 32 | 0 | rw | |
| GIC_VPE_EICSS49_L | 32 | 0 | rw | |
| GIC_VPE_EICSS50_L | 32 | 0 | rw | |
| GIC_VPE_EICSS51_L | 32 | 0 | rw | |
| GIC_VPE_EICSS52_L | 32 | 0 | rw | |
| GIC_VPE_EICSS53_L | 32 | 0 | rw | |
| GIC_VPE_EICSS54_L | 32 | 0 | rw | |

| | | | | |
|-------------------------|----|----------|----|--|
| GIC_VPE_EICSS55_L | 32 | 0 | rw | |
| GIC_VPE_EICSS56_L | 32 | 0 | rw | |
| GIC_VPE_EICSS57_L | 32 | 0 | rw | |
| GIC_VPE_EICSS58_L | 32 | 0 | rw | |
| GIC_VPE_EICSS59_L | 32 | 0 | rw | |
| GIC_VPE_EICSS60_L | 32 | 0 | rw | |
| GIC_VPE_EICSS61_L | 32 | 0 | rw | |
| GIC_VPE_EICSS62_L | 32 | 0 | rw | |
| GIC_VPE_EICSS63_L | 32 | 0 | rw | |
| GIC_Vx_DINT_PART_L | 32 | 1 | rw | |
| GIC_Cx_BRK_GROUP_L | 32 | 0 | rw | |
| GIC_VPE_CTL_O | 32 | a | rw | |
| GIC_VPE_PEND_O | 32 | 0 | r- | |
| GIC_VPE_MASK_O | 32 | 7f | r- | |
| GIC_VPE_RMASK_O | 32 | 0 | -w | |
| GIC_VPE_SMASK_O | 32 | 0 | -w | |
| GIC_VPE_WD_MAP_O | 32 | 40000000 | rw | |
| GIC_VPE_COMPARE_MAP_O | 32 | 0 | rw | |
| GIC_VPE_TIMER_MAP_O | 32 | 80000005 | rw | |
| GIC_VPE_FDC_MAP_O | 32 | 8000003e | rw | |
| GIC_VPE_PERFCTR_MAP_O | 32 | 80000005 | rw | |
| GIC_VPE_SWInt0_MAP_O | 32 | 80000000 | rw | |
| GIC_VPE_SWInt1_MAP_O | 32 | 80000000 | rw | |
| GIC_VPE_OTHER_ADDRESS_O | 32 | 0 | rw | |
| GIC_VPE_IDENT_O | 32 | 0 | r- | |
| GIC_VPE_WD_CONFIG_O | 32 | 0 | rw | |
| GIC_VPE_WD_COUNT_O | 32 | 0 | r- | |
| GIC_VPE_WD_INITIAL_O | 32 | 0 | rw | |
| GIC_VPE_CompareLo_O | 32 | fffffff | rw | |
| GIC_VPE_CompareHi_O | 32 | fffffff | rw | |
| GIC_VPE_EICSS00_O | 32 | 0 | rw | |
| GIC_VPE_EICSS01_O | 32 | 0 | rw | |
| GIC_VPE_EICSS02_O | 32 | 0 | rw | |
| GIC_VPE_EICSS03_O | 32 | 0 | rw | |
| GIC_VPE_EICSS04_O | 32 | 0 | rw | |
| GIC_VPE_EICSS05_O | 32 | 0 | rw | |
| GIC_VPE_EICSS06_O | 32 | 0 | rw | |
| GIC_VPE_EICSS07_O | 32 | 0 | rw | |
| GIC_VPE_EICSS08_O | 32 | 0 | rw | |
| GIC_VPE_EICSS09_O | 32 | 0 | rw | |
| GIC_VPE_EICSS10_O | 32 | 0 | rw | |
| GIC_VPE_EICSS11_O | 32 | 0 | rw | |

| | | | | |
|-------------------|----|---|----|--|
| GIC_VPE_EICSS12_O | 32 | 0 | rw | |
| GIC_VPE_EICSS13_O | 32 | 0 | rw | |
| GIC_VPE_EICSS14_O | 32 | 0 | rw | |
| GIC_VPE_EICSS15_O | 32 | 0 | rw | |
| GIC_VPE_EICSS16_O | 32 | 0 | rw | |
| GIC_VPE_EICSS17_O | 32 | 0 | rw | |
| GIC_VPE_EICSS18_O | 32 | 0 | rw | |
| GIC_VPE_EICSS19_O | 32 | 0 | rw | |
| GIC_VPE_EICSS20_O | 32 | 0 | rw | |
| GIC_VPE_EICSS21_O | 32 | 0 | rw | |
| GIC_VPE_EICSS22_O | 32 | 0 | rw | |
| GIC_VPE_EICSS23_O | 32 | 0 | rw | |
| GIC_VPE_EICSS24_O | 32 | 0 | rw | |
| GIC_VPE_EICSS25_O | 32 | 0 | rw | |
| GIC_VPE_EICSS26_O | 32 | 0 | rw | |
| GIC_VPE_EICSS27_O | 32 | 0 | rw | |
| GIC_VPE_EICSS28_O | 32 | 0 | rw | |
| GIC_VPE_EICSS29_O | 32 | 0 | rw | |
| GIC_VPE_EICSS30_O | 32 | 0 | rw | |
| GIC_VPE_EICSS31_O | 32 | 0 | rw | |
| GIC_VPE_EICSS32_O | 32 | 0 | rw | |
| GIC_VPE_EICSS33_O | 32 | 0 | rw | |
| GIC_VPE_EICSS34_O | 32 | 0 | rw | |
| GIC_VPE_EICSS35_O | 32 | 0 | rw | |
| GIC_VPE_EICSS36_O | 32 | 0 | rw | |
| GIC_VPE_EICSS37_O | 32 | 0 | rw | |
| GIC_VPE_EICSS38_O | 32 | 0 | rw | |
| GIC_VPE_EICSS39_O | 32 | 0 | rw | |
| GIC_VPE_EICSS40_O | 32 | 0 | rw | |
| GIC_VPE_EICSS41_O | 32 | 0 | rw | |
| GIC_VPE_EICSS42_O | 32 | 0 | rw | |
| GIC_VPE_EICSS43_O | 32 | 0 | rw | |
| GIC_VPE_EICSS44_O | 32 | 0 | rw | |
| GIC_VPE_EICSS45_O | 32 | 0 | rw | |
| GIC_VPE_EICSS46_O | 32 | 0 | rw | |
| GIC_VPE_EICSS47_O | 32 | 0 | rw | |
| GIC_VPE_EICSS48_O | 32 | 0 | rw | |
| GIC_VPE_EICSS49_O | 32 | 0 | rw | |
| GIC_VPE_EICSS50_O | 32 | 0 | rw | |
| GIC_VPE_EICSS51_O | 32 | 0 | rw | |
| GIC_VPE_EICSS52_O | 32 | 0 | rw | |
| GIC_VPE_EICSS53_O | 32 | 0 | rw | |

| | | | | |
|--------------------|----|---|----|--|
| GIC_VPE_EICSS54_O | 32 | 0 | rw | |
| GIC_VPE_EICSS55_O | 32 | 0 | rw | |
| GIC_VPE_EICSS56_O | 32 | 0 | rw | |
| GIC_VPE_EICSS57_O | 32 | 0 | rw | |
| GIC_VPE_EICSS58_O | 32 | 0 | rw | |
| GIC_VPE_EICSS59_O | 32 | 0 | rw | |
| GIC_VPE_EICSS60_O | 32 | 0 | rw | |
| GIC_VPE_EICSS61_O | 32 | 0 | rw | |
| GIC_VPE_EICSS62_O | 32 | 0 | rw | |
| GIC_VPE_EICSS63_O | 32 | 0 | rw | |
| GIC_Vx_DINT_PART_O | 32 | 1 | rw | |
| GIC_Cx_BRK_GROUP_O | 32 | 0 | rw | |
| GIC_CounterLoUser | 32 | 0 | r- | |
| GIC_CounterHiUser | 32 | 0 | r- | |

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Table 23.

| Name | Bits | Initial value (Hex) | | Description |
|------|------|---------------------|----|---------------------------------------|
| stop | 32 | 0 | rw | write with non-zero to stop processor |

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