GICD_ISENABLER<n>E, Interrupt Set-Enable Registers, n = 0 - 31

The GICD_ISENABLER<n>E characteristics are:

Purpose

Enables forwarding of the corresponding SPI in the extended SPI range to the CPU interfaces.

Configuration

This register is present only when FEAT_GICv3p1 is implemented. Otherwise, direct accesses to GICD_ISENABLER<n>E are res0.

When GICD_TYPER.ESPI==0, these registers are res0.

When GICD_TYPER.ESPI==1, the number of implemented GICD_ISENABLER<n>E registers is (GICD_TYPER.ESPI_range+1). Registers are numbered from 0.

Attributes

GICD_ISENABLER<n>E is a 32-bit register.

Field descriptions

31	30	29	28	27	26
Set_enable_bit31	Set_enable_bit30	Set_enable_bit29	Set_enable_bit28	Set_enable_bit27	Set_enable_b

Set_enable_bit<x>, bit [x], for x = 31 to 0

For the extended SPI range, controls the forwarding of interrupt number x to the CPU interface. Reads and writes have the following behavior:

Set_enable_bit<x>	Meaning
0b0	If read, indicates that forwarding of the corresponding interrupt is disabled. If written, has no effect.

0b1	If read, indicates that forwarding of the corresponding interrupt is enabled. If written, enables forwarding of the corresponding interrupt. After a write of 1 to this bit, a subsequent read of this bit returns 1.

The reset behavior of this field is:

- On a GIC reset, this field resets to 0.

For INTID m, when DIV and MOD are the integer division and modulo operations:

- The corresponding GICD_ISENABLER<n>E number, n, is given by n = (m-4096) DIV 32.
- The offset of the required GICD_ISENABLER<n>E is (0x1200 + (4*n)).
- The bit number of the required group modifier bit in this register is (m-4096) MOD 32.

Accessing GICD_ISENABLER<n>E

When affinity routing is not enabled for the Security state of an interrupt in GICD_ISENABLER<n>E, the corresponding bit is res0.

When GICD_CTLR.DS==0, bits corresponding to Secure SPIs are RAZ/WI to Non-secure accesses.

Bits corresponding to unimplemented interrupts are RAZ/WI.

GICD_ISENABLER<n>E can be accessed through the memory-mapped interfaces:

Component	Frame	Offset	Instance
GIC Distributor	Dist_base	0x1200 + (4 * n)	GICD_ISENABLER<n>E

Accesses on this interface are **RW**.

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