

GICD_TYPER2, Interrupt Controller Type Register 2

The GICD_TYPER2 characteristics are:

Purpose

Provides information about which features the GIC implementation supports.

Configuration

This register is present only when FEAT_GICv4p1 is implemented. Otherwise, direct accesses to GICD_TYPER2 are res0.

When [GICD_CTLR](#).DS == 0, this register is Common.

Attributes

GICD_TYPER2 is a 32-bit register.

Field descriptions

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
RES0																nASSGICap		VIL	RES0	VID											

Bits [31:9]

Reserved, res0.

nASSGICap, bit [8]

Indicates whether SGIs can be configured to not have an active state.

nASSGICap	Meaning
0b0	SGIs have an active state.
0b1	SGIs can be globally configured not to have an active state.

This bit is res0 on implementations that support two Security states.

VIL, bit [7]

Indicates whether 16 bits of vPEID are implemented.

VIL	Meaning
0b0	GIC supports 16-bit vPEID.
0b1	GIC supports GICD_TYPER2.VID + 1 bits of vPEID.

Bits [6:5]

Reserved, res0.

VID, bits [4:0]

When GICD_TYPER2.VIL == 1, the number of bits is equal to the bits of vPEID minus one.

When GICD_TYPER2.VIL == 0, this field is res0.

Accessing GICD_TYPER2

GICD_TYPER2 can be accessed through the memory-mapped interfaces:

Component	Frame	Offset	Instance
GIC Distributor	Dist_base	0x000C	GICD_TYPER2

Accesses on this interface are **RO**.