EDWAR, External Debug Watchpoint Address Register

The EDWAR characteristics are:

Purpose

Returns the virtual data address being accessed when a Watchpoint Debug Event was triggered.

Configuration

EDWAR is in the Core power domain.

Attributes

EDWAR is a 64-bit register.

Field descriptions

63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32

Watchpoint address
Watchpoint address

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

Bits [63:0]

Watchpoint address. The data virtual address being accessed when a Watchpoint Debug Event was triggered and caused entry to Debug state. This address must be within a naturally-aligned block of memory of power-of-two size no larger than the <u>DC ZVA</u> block size.

The value of this register is unknown if the PE is in Non-debug state, or if Debug state was entered other than for a Watchpoint debug event.

The value of EDWAR[63:32] is unknown if Debug state was entered for a Watchpoint debug event taken from AArch32 state.

The EDWAR is subject to the same alignment rules as the reporting of a watchpointed address in the FAR. See 'Determining the memory location that caused a Watchpoint exception'.

The reset behavior of this field is:

• On a Cold reset, this field resets to an architecturally unknown value.

Accessing EDWAR

EDWAR can be accessed through the external debug interface:

Component	Offset	Instance	Range
Debug	0x030	EDWAR	31:0

This interface is accessible as follows:

- When IsCorePowered(), !DoubleLockStatus() and !OSLockStatus(), accesses to this register are **RO**.
- Otherwise, accesses to this register generate an error response.

Component	Offset	Instance	Range	
Debug	0x034	EDWAR	63:32	

This interface is accessible as follows:

- When IsCorePowered(), !DoubleLockStatus() and !OSLockStatus(), accesses to this register are **RO**.
- Otherwise, accesses to this register generate an error response.

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