EDDEVID, External Debug Device ID register 0

The EDDEVID characteristics are:

Purpose

Provides extra information for external debuggers about features of the debug implementation.

Configuration

When FEAT_DoPD is implemented, EDDEVID is in the Core power domain. Otherwise, EDDEVID is in the Debug power domain.

Attributes

EDDEVID 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	AuxRegs	RES0	DebugPowerPC	ExtSample

Bits [31:28]

Reserved, res0.

AuxRegs, bits [27:24]

Indicates support for Auxiliary registers. Defined values are:

AuxRegs	Meaning
0b0000	None supported.
0b0001	Support for External Debug Auxiliary Control Register, EDACR.

All other values are reserved.

Bits [23:8]

Reserved, res0.

DebugPower, bits [7:4]

Indicates support for the FEAT_DoPD feature. Defined values are:

DebugPower	Meaning
0b0000	FEAT_DoPD not implemented. Registers in the external debug interface register map are implemented in a mix of the Debug and Core power domains.
0b0001	FEAT_DoPD implemented. All registers in the external debug interface register map are implemented in the Core power domain.

FEAT_DoPD implements the functionality added by the value 0b0001.

All other values are reserved.

PCSample, bits [3:0]

Indicates the level of PC Sample-based Profiling support using external debug registers. Defined values are:

PCSample	Meaning
0b0000	PC Sample-based Profiling Extension is not implemented in the external debug registers space.
0b0010	Only EDPCSR and EDCIDSR are implemented. This option is only permitted if EL3 and EL2 are not implemented.
0b0011	EDPCSR, EDCIDSR, and EDVIDSR are implemented.

All other values are reserved.

When FEAT_PCSRv8p2 is implemented, the only permitted value is 0b0000.

Note

FEAT_PCSRv8p2 implements the PC Sample-based Profiling Extension in the

Performance Monitors register space, as indicated by the value of PMU.PMDEVID.PCSample.

Accessing EDDEVID

EDDEVID can be accessed through the external debug interface:

Component	Offset	Instance
Debug	0xFC8	EDDEVID

This interface is accessible as follows:

- When FEAT_DoPD is not implemented or IsCorePowered(), accesses to this register are **RO**.
- Otherwise, accesses to this register generate an error response.

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