TRBAUTHSTATUS, Authentication Status Register

The TRBAUTHSTATUS characteristics are:

Purpose

Provides information about the state of the implementation defined authentication interface for debug.

For additional information, see the CoreSight Architecture Specification.

Configuration

This register is present only when FEAT_TRBE_EXT is implemented. Otherwise, direct accesses to TRBAUTHSTATUS are res0.

TRBAUTHSTATUS is in the Core power domain.

Attributes

TRBAUTHSTATUS 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	RTNID	RTID	RES0	RLNID	RLID	RES0	SNID	SID	NSNID	NSID

Bits [31:28]

Reserved, res0.

RTNID, bits [27:26]

Root non-invasive debug.

RTNID	Meaning
0b00	Not implemented.

Access to this field is **RO**.

RTID, bits [25:24]

Root invasive debug.

This field has the same value as DBGAUTHSTATUS_EL1.RTID.

Bits [23:16]

Reserved, res0.

RLNID, bits [15:14]

Realm non-invasive debug.

RLNID	Meaning
0b00	Not implemented.

Access to this field is **RO**.

RLID, bits [13:12]

Realm invasive debug.

This field has the same value as DBGAUTHSTATUS_EL1.RLID.

Bits [11:8]

Reserved, res0.

SNID, bits [7:6]

Secure non-invasive debug.

SNID	Meaning
0b00	Not implemented.

Access to this field is **RO**.

SID, bits [5:4]

Secure invasive debug.

This field has the same value as DBGAUTHSTATUS_EL1.SID.

NSNID, bits [3:2]

Non-secure non-invasive debug.

NSNID	Meaning
0b00	Not implemented.

Access to this field is **RO**.

NSID, bits [1:0]

Non-secure invasive debug.

This field has the same value as DBGAUTHSTATUS_EL1.NSID.

Accessing TRBAUTHSTATUS

TRBAUTHSTATUS can be accessed through the external debug interface:

Component	Offset	Instance
TRBE	0xFB8	TRBAUTHSTATUS

This interface is accessible as follows:

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

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