

Link-pointer and Zone-Select Block

Dual Code-Security-Module

Link-pointer Overview

- Value stored in each zone header that determines the active zone-select block for that zone.
- Format: all 1s followed by all 0s
- Effective Link-pointer generated from 3 separate link-pointer using bit-wise voting logic.

Zx-LINKPOINTER	Selected ZSB
000111111111111111	ZSB1
000111111111111110	ZSB2
000111111111111100	ZSB3
000111111111111000	ZSB4
000111111111100000	ZSB5
000111111111000000	ZSB6
000111111110000000	ZSB7
000111111100000000	ZSB8
000111111000000000	ZSB9

Zone-Select Block vs. Zone Header

Zone Header Settings	Zone Select Block Settings
<ul style="list-style-type: none">• LINKPOINTER[1:3]• JTAG Lock Enable• JTAGPSWDH• CMACKEY• Password Lock• CRC Lock• General Purpose Registers(ERRORSTS, Boot Settings, etc.)	<ul style="list-style-type: none">• CSM Passwords• GRABSECT• GRABRAM• EXEONLYSECT• EXEONLYRAM• JTAGPSWDL

Zone Select Block Settings

- CSMPSWDx: Passwords used to lock and unlock a zone.
- GRABSECTx: Used for allocating flash sectors to the zone associated with the zone select block
- GRABRAMx: Used for allocating RAM blocks to the zone associated with the zone select block
- EXEONLYSECTx: Used to designate flash sectors as execute-only
- EXEONLYRAMx: Used to designate RAM blocks as execute-only
- JTAGPSWDLx

Zone Select Block (ZSB)	
Address Offset (from ZSB Base)	32-bit Content
0x0	ZxOTP_CSMPSWD0
0x2	ZxOTP_CSMPSWD1
0x4	ZxOTP_CSMPSWD2
0x6	ZxOTP_CSMPSWD3
0x8	ZxOTP_GRABSECT1
0xa	ZxOTP_GRABSECT2
0xc	ZxOTP_GRABSECT3
0xe	ZxOTP_GRABRAM1
0x10	ZxOTP_GRABRAM2
0x12	ZxOTP_GRABRAM3
0x14	ZxOTP_EXEONLYSECT1
0x16	ZxOTP_EXEONLYSECT2
0x18	ZxOTP_EXEONLYRAM1
0x1a	Reserved
0x1c	ZxOTP_JTAGPSWDL0
0x1e	ZxOTP_JTAGPSWDL1

Additional DCSM Resources

- **DCSM Application Reports**

- [C2000 DCSM Security Tool Application Report](#)
- [C2000 Unique Device Number Application Report](#)
- [Enhancing Device Security by Using JTAGLOCK Feature Application Report](#)
- [Secure BOOT On C2000 Device Application Report](#)