

CPLD Specification

BDXDE CPU Board

AS7816-64X

Version: 1.0

Revision History

Rev.	Date	Author	Revision Description
V1.0	8/29/2019		Initial OCP release

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1. CPLD Register

Address	Register	R/W	Default value
0x00	Board Info	Read Only	0x02
0x01	CPLD version	Read Only	0x11
0x02	Watch DOG Status_1	Read / Write	
0x03	Watch DOG Status_2	Read / Write	
0x04	System Reset	Read / Write	0x01
0x24	Last Reset Reason	Read Only	

Table 1-1 CPLD I/O Register Summary

1.1. Offset 0x00 Board Info (Read Only)

Bit	Name	R/W	Reset Value	Description
7:1	Reserved	NA	NA	
0	PCB_version	R	0x2	0x2 for R02

1.2. Offset 0x01 CPLD version (Read Only)

Bit	Name	R/W	Reset Value	Description
7:0	CPLD_ver[7:0]	R	0x11	CPLD version

1.3. Offset 0x02 Watch Dog Status_1 (Read/Write)

Bit	Name	R/W	Reset Value	Description
7	OS_done	R/W		1: Had enter into OS 0: not enter into OS Note: OS needs set "1", this bit will auto return to 0 when system reset or power cycle.
6	Reset_log_clear	R/W		For 0x24 clear 1: clear 0x24 0: Normal
5	Reserved	NA	NA	

4	SPI_CS_SELECT	R		The state of flash 1: Boot from CI flash 0: Boot from KGI flash
3	Last_time_SPI_CS_SELECT	R		The state of flash 1: Boot from CI flash 0: Boot from KGI flash
2:0	Reserved	NA	NA	

1.4. Offset 0x03 Watch Dog Status_2 (Read& Write)

Bit	Name	R/W	Reset Value	Description
7:5	Reserved	NA	NA	
4	Watch dog enable	R/W	0	Function: Enable / Disable Watchdog function 1: Enable watch dog function 0: Disable watch dog function
3	Update_BOOT_DEV_SEL	R/W	0	1: Update_BOOT_DEV_SEL 0: None
2	BOOT_DEV_SEL	R/W	1	Function: Bios boot flash select 1: Boot from CI flash 0: Boot from KGI flash
1	WATCHDOG_Trigger	R/W	1	Function: Negative edge trigger for WDT Need set L to H in 300 sec WDT, no autoreturn (H-L-H)
0	test_mode	R/W	0	Function: For reduce the time for WDT test 1: Reduce time (60 sec) 0: Normal run (300 sec)

1.5. Offset 0x04 System Reset (Read& Write)

Bit	Name	R/W	Reset Value	Description
7:1	Reserved	NA	NA	
0	Soft reset	R/W	1	0: the system was reset by software 1: Normal

1.6. Offset 0x24 Last Reset Reason Register (Read)

Bit	Name	R/W	Reset Value	Description
7	OS_done_log	R		When 1: It has entry OS before

				When 0: It has not entry OS before
6	POWER_ON_log	R		When 1: It has power ON before When 0: It has no power ON before
5	Reserved	NA	NA	
4	PSHBTN_SYS_RESET_N	R		When 1: Last reset caused by PSHBTN_SYS_RESET_N When 0: Last reset not caused by PSHBTN_SYS_RESET_N
3	Reserved	NA	NA	
2	Manu_RST	R		When 1: Last reset caused by Manu_RST on reset When 0: Last reset not caused by Manu_RST on reset
1	Soft reset_log	R		Soft reset log 0x04[0] When 1: Last reset caused by Soft reset on reset When 0: Last reset not caused by Soft reset on reset
0	CPU_WDT_log	R		When 1: Last reset caused by WDT on reset When 0: Last reset not caused by WDT on reset

Note: Refer to the last reset reason test manual