

Output Path	Type	Default Voltage	Startup Sequence	Application Suggestion	Load Capacity(Max)
DCDC1	BUCK	Customization	Customization	GPU	3000mA
DCDC2	BUCK			CPU	3000mA
DCDC3	BUCK			DRAM	3000mA
ALDO1	LDO			PLL/AVCC·····	300mA
DLDO1	LDO			IO	500mA
RTCLDO	LDO			RTC	30mA

AXP323 includes three synchronous step-down DCDCs and three LDOs. The work frequency of DCDC is 1.5MHz by default. External small inductors and capacitors can be connected.

All DCDC/LDOs support the discharge function. It means that when the output is turned off, the charge on the external capacitor can be quickly released through the internal discharge path.

DCDC2 has DVM enable option configured by REG14H[7]. In DVM mode, when there is a change in the output voltage, DCDC2 will change to the new targeted value step by step. It supports two kinds of DVM slope: 1 step/20us and 1step/40us. The slope can be chosen by REG12H[4].

AXP323 can configure the default voltage, the startup sequence and other control of all power output.

Startup sequence:The startup sequence has four levels from 0 to 3. When the sequence is 0, it means the output is booted at the first step. When the sequence code is 1, it means the output is booted at the second step. When the sequence code is 2, it means the output is booted at the third step. When the sequence is 3, it means the output is not booted by default. The startup interval can be customized as 2/4/16/32ms.

6.6 Interrupt

PMIC interrupt controller monitors the trigger events such as under voltage, PWRON pin signal, over temperature and so on. When the events occur and their IRQ enable bits are set to 1 (Refer to registers REG20H), corresponding IRQ status will be set to 1 (Refer to registers REG21H), and IRQ pin (open drain) will be pulled down. When host detects triggered IRQ signal, host will scan through the IRQ Status registers and respond accordingly. Meanwhile, Host will reset the IRQ status by writing “1” to the status bit.

Table 6-4 Interrupt information

Bit	IRQ	DESCRIPTION
REG20H[7]	IRQ1	PWRON positive edge
REG20H[6]	IRQ2	PWRON negative edge
REG20H[5]	IRQ3	PWRON short press
REG20H[4]	IRQ4	PWRON long press
REG20H[3]	IRQ5	DCDC3 under voltage
REG20H[2]	IRQ6	DCDC2 under voltage
REG20H[0]	IRQ7	IC over temperature

6.7 Register

6.7.1 Register List

Address	Description	R/W	Default
00	Power ON Source indication	R	
10	on-off control	R/W	XXH
12	DCDC mode control1	R/W	00H
13	DCDC1 Voltage control	R/W	XXH