

5 Interrupts

Table 13 Interrupt Types

Interrupt Type	Processor Mode	Address
Reset	Supervisor (svc)	0x00000000
Undefined Instructions	Supervisor (svc)	0x00000004
Software Interrupt (SWI)	Supervisor (svc)	0x00000008
Prefetch Abort (instruction fetch memory abort)	Supervisor (svc)	0x0000000C
Data Abort (data access memory abort)	Supervisor (svc)	0x00000010
Address exception	Supervisor (svc)	0x00000014
IRQ (interrupt)	IRQ (irq)	0x00000018
FIRQ (fast interrupt)	FIRQ (firq)	0x0000001C
-	User (usr)	-

The modes other than User mode are known as privileged modes. They have full access to system resources and can change mode freely. When an exception occurs, the banked versions of r14, the link register, is used to save the pc value and status bits.