QSPI API 说明：

Version	Description
v1.0	更新 fqspips.c, fqspips_sw.c, fqspips_hw.c 部分 API。

● fqspips.c

1. FQspiPs_Config_T FQspiPs_LookupConfig(u16 deviceId);*

描述	* This function finds FQspiPs_Config_T instance according to device id
参数	* @param u16 deviceId Device ID for controller
返回值	* @return FQspiPs_Config_T * FQspiPs_Config_T instance

2. int FQspiPs_CfgInitialize(FQspiPs_T qspi, FQspiPs_Config_T* configPtr);*

描述	* This function initializes a specific FQspiPs _T device/instance. This function must be called prior to using the device to read or write any data
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param FQspiPs _Config_T* configPtr FQspiPs _Config _T instance
返回值	* @return int * SUCCESS/FAILURE

3. void FQspiPs_*Reset(FQspiPs_T* qspi);*

描述	* This function reset controller, all registers are reset to default value
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

4. void FQspiPs_SetStatusHandler(FQspiPs_T qspi, void* callBackRef, FQspiPs_StatusHandler funcPtr);*

描述	* This function registers user handler function to handle interrupt
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param void* callBackRef Callback parameter used in handler function * @param FSpiPs_StatusHandler funcPtr Callback function used to handle user interrupt operation
返回值	* @return void

5. void FQspiPs_InterruptHandler(void instancePtr);*

描述	* This function provides default interrupt handler
参数	* @param void* instancePtr Interrupt callback parameter
返回值	* @return void

● fqspips_sw.c

6. int FQspiPs_Initialize(FQspiPs_T qspi, u16 deviceId);*

描述	* This function initializes a specific FQspiPs _T device/instance.
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param u16 deviceId Device ID for controller
返回值	* @return int SUCCESS/FAILURE

7. int FQspiPs_GetFlashInfo(FQspiPs_T qspi);*

描述	* This function gets flash info by reading flash id
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return int SUCCESS/FAILURE

8. int FQspiPs_SetFlashMode(FQspiPs_T qspi, u8 cmd);*

描述	* This function sets flash mode
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param u8 cmd Flash read/write command
返回值	* @return int SUCCESS/FAILURE

9. int FQspiPs_ResetFlash(FQspiPs_T qspi);*

描述	* This function resets flash device
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return int SUCCESS/FAILURE

10. int FQspiPs_UnlockFlash(FQspiPs_T qspi);*

描述	* This function disables protect in flash
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return int SUCCESS/FAILURE

11. int FqspiPs_SetFlashSegment(FQspiPs_T qspi, u8 highAddr);*

描述	* This function changes segment
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param u8 highAddr High bits of address
返回值	* @return int SUCCESS/FAILURE

12. int FQspiPs_EraseChip(FQspiPs_T qspi);*

描述	* This function erases chip
参数	* @param FQspiPs _T* qspi

	FQspiPs _T device/instance
返回值	* @return int SUCCESS/FAILURE

13. int FQspiPs_EraseSectors(FQspiPs_T qspi, u32 offset, u32 byteCount, u32 sectorSize);*

描述	* This function erases sectors
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param u32 offset Address offset to erase * @param u32 byteCount Bytes to erase * @param u32 sectorSize Sector size of flash
返回值	* @return int SUCCESS/FAILURE

14. int FQspiPs_SendBytes(FQspiPs_T qspi, u32 offset, u32 byteCount, u8* sendBuffer);*

描述	* This function sends bytes to flash in direct mode
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param u32 offset Address offset to write * @param u32 byteCount Bytes to write * @param u8* sendBufer Point to send buffer
返回值	* @return int SUCCESS/FAILURE

15. int FQspiPs_RecvBytes(FQspiPs_T qspi, u32 offset, u32 byteCount, u8* recvBuffer);*

描述	* This function reads bytes from flash in direct mode
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param u32 offset

	Address offset to read * @param u32 byteCount Bytes to read * @param u8* sendBufer Point to receive buffer
返回值	* @return int SUCCESS/FAILURE

16. int FQspiPs_FastSendBytes(FQspiPs_T qspi, u32 offset, u32 byteCount, u8* sendBuffer);*

描述	* This function sends bytes to flash in indirect mode
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param u32 offset Address offset to write * @param u32 byteCount Bytes to write * @param u8* sendBufer Point to send buffer
返回值	* @return int SUCCESS/FAILURE

17. int FQspiPs_FastRecvBytes(FQspiPs_T qspi, u32 offset, u32 byteCount, u8* recvBuffer);*

描述	* This function receives bytes to flash in indirect mode
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param u32 offset Address offset to read * @param u32 byteCount Bytes to read * @param u8* sendBufer Point to receive buffer
返回值	* @return int SUCCESS/FAILURE

18. int FQspiPs_EnterXIP(FQspiPs_T qspi, u8 cmd);*

描述	* This function sets flash as XIP mode

参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param u8 cmd Xip mode read/write command
返回值	* @return int SUCCESS/FAILURE

- **fqspips_hw.c**

19. void FQspiPs_Enable(FQspiPs_T qspi);*

描述	* This function enables qspi cotroller
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

20. void FQspiPs_Disable(FQspiPs_T qspi);*

描述	* This function disables qspi controller
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

21. void FQspiPs_EnableDAC(FQspiPs_T qspi);*

描述	* This function enables dac
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

22. void FQspiPs_DisableDAC(FQspiPs_T qspi);*

描述	* This function disables dac
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

23. void FQspiPs_EnableLegacy(FQspiPs_T qspi);*

描述	* This function enables legacy mode
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

24. void FQspiPs_DisableLegacy(FQspiPs_T qspi);*

描述	* This function disables legacy mode
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

25. void FQspiPs_EnableDMA(FQspiPs_T qspi);*

描述	* This function enables dma mode
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

26. void FQspiPs_DisableDMA(FQspiPs_T qspi);*

描述	* This function disables dma mode
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

27. void FQspiPs_EnableRemap(FQspiPs_T qspi);*

描述	* This function enables remap
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

28. void FQspiPs_DisableRemap(FQspiPs_T qspi);*

描述	* This function disables remap
参数	* @param FQspiPs _T* qspi

	FQspiPs _T device/instance
返回值	* @return void

29. void FQspiPs_EnableXip(FQspiPs_T qspi);*

描述	* This function enables xip
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

30. void FQspiPs_DisableXip(FQspiPs_T qspi);*

描述	* This function disables xip
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

31. void FQspiPs_EnableProtect(FQspiPs_T qspi, int inv);*

描述	* This function enables write protect
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

32. void FQspiPs_DisableProtect(FQspiPs_T qspi);*

描述	* This function disables write protect
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return void

33. void FQspiPs_SetClockFormat(FQspiPs_T qspi, uint32_t clockFormat);*

描述	* This function sets clock mode
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t clcokFormat Clock mode
返回值	* @return void

34. void FQspiPs_SetBaudRate(FQspiPs_T qspi, uint32_t baudRate);*

描述	* This function sets baud rate
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t baudRate Clock mode
返回值	* @return void

35. void FQspiPs_SetAddrBytesNum(FQspiPs_T qspi, uint32_t addrSize);*

描述	* This function sets number of address bytes
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t addrSize Address bytes
返回值	* @return void

36. void FQspiPs_SetPageSize(FQspiPs_T qspi, uint32_t pageSize);*

描述	* This function sets page size
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t pageSize Page size
返回值	* @return void

37. void FQspiPs_SetBlockSize(FQspiPs_T qspi, uint32_t blockSize);*

描述	* This function sets protect block size
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t bockSize Block size
返回值	* @return void

38. void FQspiPs_SetRemap(FQspiPs_T qspi, uint32_t offset);*

描述	* This function sets remap offset
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t offset offset
返回值	* @return void

39. void FQspiPs_SetLowBlock(FQspiPs_T qspi, uint32_t lowBlock);*

描述	* This function sets low block to protect
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t lowBlock Low block to protect
返回值	* @return void

40. void FQspiPs_SetHighBlock(FQspiPs_T qspi, uint32_t highBlock);*

描述	* This function get flash info by reading flash id
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t highBlock High block to protect
返回值	* @return void

41. void FQspiPs_SetTxNotFullLvl(FQspiPs_T qspi, uint32_t threshold);*

描述	* This function sets tx not full level
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t threshold threshold
返回值	* @return void

42. void FQspiPs_SetRxNotEmptyLvl(FQspiPs_T qspi, uint32_t threshold);*

描述	* This function sets rx not empty level
参数	* @param FQspiPs _T* qspi

	FQspiPs _T device/instance * @param uint32_t threshold threshold
返回值	* @return void

43. void FQspiPs_SetModeBits(FQspiPs_T qspi, u8 modeBits);*

描述	* This function sets mode bits
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t modeBits Mode bits
返回值	* @return void

44. void FQspiPs_EnableIntr(FQspiPs_T qspi, uint32_t mask);*

描述	* This function enables masked interrupts
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t mask mask
返回值	* @return void

45. void FQspiPs_DisableIntr(FQspiPs_T qspi, uint32_t mask);*

描述	* This function disables masked interrupts
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t mask mask
返回值	* @return void

46. void FQspiPs_ClearIntr(FQspiPs_T qspi, uint32_t mask);*

描述	* This function clears masked interrupts
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t mask mask
返回值	* @return void

47. uint32_t FQspiPs_IntrEnabled(FQspiPs_T qspi);*

描述	* This function returns enabled interrupts
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return uint32_t Enabled interrupts

48. int FQspiPs_CmdExecute(FQspiPs_T qspi, uint32_t cmd);*

描述	* This function executes command
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t cmd commands
返回值	* @return int SUCCESS/FAILURE

49. int FQspiPs_WaitIdle(FQspiPs_T qspi);*

描述	* This function wait controller idle
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance
返回值	* @return int SUCCESS/FAILURE

50. int FQspiPs_WaitForBit(FQspiPs_T qspi, uint32_t regOffset, uint32_t mask, u8 pollBit);*

描述	* This function wait certain register bit
参数	* @param FQspiPs _T* qspi FQspiPs _T device/instance * @param uint32_t regOffset Register offset * @param uint32_t mask Mask of register bit * @param uint32_t pollBit Poll 0 or 1
返回值	* @return int

	SUCCESS/FAILURE