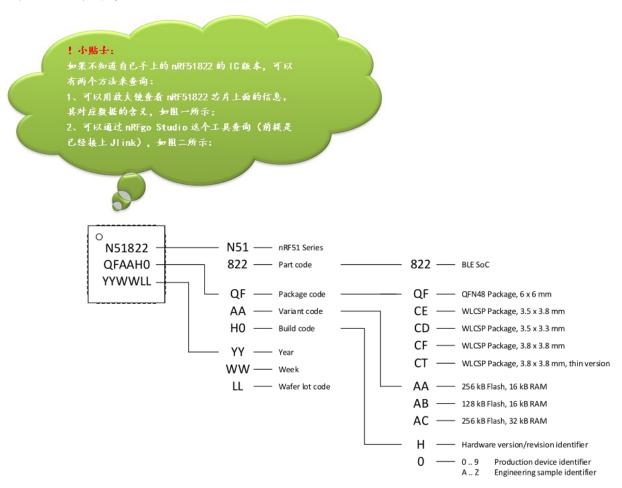
# Nordic的51822中的SDK与SoftDevice的对应关系

# 一、前言

Nordic的BLE,它们的协议栈与SDK的版本比较多,对于新手来说会分不清他们之间的关系,从而导致不知道该如何正确地选择哪个协议栈版本,接下来我会用几个表格或图片来理清它们之间的关系。

# 二、nRF51822的IC版本



(图1) 🔀 nRFgo Studio <u>File View nRF8001 Setup Help</u> Features SEGGER to use: 123456 ▼ Refresh ■ 2.4 GHz nRF51822 QFAAHOO (0x0072) TX carrier wave output RX constant carrier/LO leak.. Region 1 (Application) Program SoftDevice Program Application Program Boot TX/RX channel sweep RX sensitivity Programming of Application on nRF5x devi ■ Bluetooth nRF8001 Configuration Dispatcher Lock entire chip from readback Trace Translator Device Manager Size: 256 kB Motherboards nRF5x Programming Program Verify Read nRF5x Bootloader nRF24LU1+ Bootloaders Address: 0x0 Erase all (c) Nordic Semiconductor ASA 2008-2015

(图2)

以下是nRF51822芯片表面上编号信息的IC版本、Flash以及RAM大小对应关系

nRF51822 IC revision<sup>1)</sup> Packet variant<sup>2)</sup> Build code<sup>2)</sup> Package Flash [kB]<sup>1)</sup> RAM [kB]<sup>1)</sup>

1	QF AA	CA CO		256		
		AA	QFN48		16	
	QF AB			128		
		AO				
	CE AA	ВА	WLCSP	256		
	OL AIN	В0	112001	200		
2		FA0		256		
	QF AA	GCO				
		G×0 <sup>3)</sup>	QFN48			
	QF AB	B×0 <sup>3)</sup>		128	16	
	CE AA	CAO		256		
		DAO	WLCSP			
		D×0 <sup>3)</sup>				
3	QF AA	H×0 <sup>3)</sup>		256	16	
	QF AB	G×0 <sup>3)</sup>	QFN48	128	10	
	QF AC	A×0 <sup>3)</sup>		256	32	
	CD AB	Ax0 <sup>3)</sup>		128	16	
	CE AA	Ex0 <sup>3)</sup>	WLCSP	25/	10	
	CF AC	A×0 <sup>3)</sup>		256	32	

Table 1. nRF51822 IC revision overview

- 1) nRF51 IC revision, RAM size and Flash size can be retrieved by calling the nrf\_ic\_info\_get function in the ic\_info library in nRF51 SDK 8.1.0+
- 2) Packet variant and build code can be read from markings on top of the nRF51 IC.
- 3) The x in the build code could be A..Z for engineering release, or 0..9 for production release. (HWID is given for x = 0, if  $X \neq 0$  the HWID will be different).

# 来源:

 $\frac{\text{http://infocenter.nordicsemi.com/topic/com.nordic.infocenter.nrf51/dita/nrf51/compatibility\ matrix/nRF51822\ ic\ revision\ overview.html}{\text{cp=2}\ 0\ 1}$ 

三、nRF51822的IC版本、SDK及Soft Device的对应关系

nRF51 IC rev.	nRF51 SDK <sup>1)</sup>	S110 SD <sup>2)</sup>	S110 SDS <sup>3)</sup>	\$120 \$D <sup>2)</sup>	S120 SDS <sup>3)</sup>	\$130 \$D <sup>2)</sup>	\$130 \$D\$ <sup>3)</sup>	S210 SD <sup>2)4)</sup>	S210 SDS <sup>3)</sup>	S310 SD <sup>2)5)</sup>	\$310 \$D\$ <sup>3)</sup>
1	4. 4. 2	5. 2. 1 <sup>6)</sup>	1. 1	-	-	-	-	2. 0. 0 <sup>7)</sup>	1. 0	-	-
2	4. 4. 2	5. 2. 1	1. 1			-	-	3. 0. 0	1. 2	-	-
	5. 2. 0	6. 0. 0	1. 2	_	_			3. 0. 0	1. 2	1. 0. 0	1. 0
	6. 1. 0	7. x. x	1. 3	1. 0. 1	1. 1			3. 0. 0	1. 2	1. 0. 0	1.0
	_	8. 0. 0	2. 0	2. x	2. 1			4. 0. 1	2. 0	2. 0. 1	2. 0
	-	5. 2. 1	1. 1	-	-	-	_	-	_	_	-
	_	6. 2. 1	1. 2	-	-	-	_	-	-	_	-
	6. 1. 0	7. x. x		1. 0. 1	1.1	-	-	3. 0. 0	1. 2	1. 0. 0	1.0
	7. 0. 1		1.3			0.5.0- 1.alpha	0.5	4. 0. 1	2. 0	-	-
	7. 1. 0									2. 0. 1	2. 0
	7. 2. 0										
3	8. 0. 0					0.9.0- 1.alpha	0.5	4. 0. 1	2. 0	-	_

8. 1. 0	8.0.0	2. 0	2. x	2. 1	1. 0. 0	1.0				
9. 0. 0							5.0.0	2.0	2.0.0	2.0
10. 0. 0							5. 0. 0	3. 0	3. 0. 0	3. 0
11.0.0- 2.alpha	_	_	_	_	2.0.0- 7.alpha	-	5. 0. 0	3.0	_	-
11. 0. 0	-	-	-	-	2. 0. 0	2. 0	-	-	-	-

Table 1. IC revisions, SDK, and SoftDevice compatibility matrix

- 1) At v11, the SDK has been renamed into nRF5 SDK, and it includes support for both nRF51 and nRF52.
- 2) SD = SoftDevice
- 3) SDS = SoftDevice Specification
- 4) ANT only SoftDevice. Only compatible with nRF51422 IC.
- 5) ANT and BLE combined SoftDevice. Only compatible with nRF51422 IC.
- 6) Valid for nRF51822 only.
- 7) Preprogrammed in factory.

#### 来源:

http://infocenter.nordicsemi.com/topic/com.nordic.infocenter.nrf51/dita/nrf51/compatibility\_matrix/nRF51422\_nRF51822\_ic\_rev\_sdk\_%20sd\_comp\_matrix.html?

cp=2 0 3

# 三、补充

Nordic BLE协议栈、SDK的版本以及对应关系表官网会不断更新, 其相对应的最新内容如下:

# 1、BLE协议栈

http://infocenter.nordicsemi.com/index.jsp?

topic=%2Fcom.nordic.infocenter.nrf51%2Fdita%2Fnrf51%2Fcompatibility matrix%2FnRF51822 ic revision overview.html&cp=2 0 1

# 2、SDK

https://www.nordicsemi.com/eng/nordic/Products/nRF5-SDK/nRF5-SDK-zip/54291

# 3、对应关系表

 $\underline{\text{http://infocenter.nordicsemi.com/index.}} \ \underline{\text{isp?topic=\%2Fcom.nordic.}} \ \underline{\text{infocenter.s132.api.v2.0.0\%2Findex.html}} \ \underline{\text{html}} \ \underline{\text{$