

NFC Controller ICsSelection Guide

Key Features		SL6550A	SL6567P	SL6568WFS	SL6320	SL6320P	SL2823S
1. Package		VFBGA64 (4.0*4.0*0.95 mm)	VFBGA64 (4.0*4.0*0.95 mm)	WLCSP56 (3.43 X 3.115 X 0.49 mm)	QFNWB5*5-32L (P0.50T0.75)	QFNWB5*5-32L (P0.50T0.75)	QFN16 3*3*0.75 mm
3. Ambient operating temperature		-25 °C ~ +85 °C	-25 °C ~ +85 °C	-30 °C ~ +85 °C	-25 °C ~ +85 °C	-25 °C ~ +85 °C	-40 °C ~ +85 °C
4. Maximum Output Power	External DCDC power supply	2.0W	4.0W	4.0W	2.0W	4.0W	0.6W
	Direct external power supply	1.5W	2.5W	2.0W	1.5W	2.5W	0.45W
5. NFC Modes		Reader/Writer Card Emulation P2P ☆	Reader/Writer Card Emulation P2P ☆	Reader/Writer Card Emulation P2P ☆	Reader/Writer Card Emulation P2P ☆	Reader/Writer Card Emulation P2P ☆	Reader/Writer
6. NFC Protocols and NFC Speed							
• ISO/IEC 14443 A/B PICC and mode		106/212/424/848 Kbps	106/212/424/848 Kbps	106/212/424/848 Kbps	106/212/424/848 Kbps	106/212/424/848 Kbps	-
• ISO/IEC 14443 A/B PCD mode		106/212/424/848 Kbps	106/212/424/848 Kbps	106/212/424/848 Kbps	106/212/424/848 Kbps	106/212/424/848 Kbps	106/212/424/848 Kbps
• ISO/IEC 15693 VCD mode		1.65/26.48 Kbps	1.65/26.48 Kbps	1.65/26.48 Kbps	1.65/26.48 Kbps	1.65/26.48 Kbps	1.65/26.48 Kbps
• NFC Forum Type F PICC mode		212/424 Kbps	212/424 Kbps	212/424 Kbps	212/424 Kbps	212/424 Kbps	-
• NFC Forum Type F PCD mode		212/424 Kbps	212/424 Kbps	212/424 Kbps	212/424 Kbps	212/424 Kbps	212/424 Kbps
• NFCIP-1, NFCIP-2 protocol		√	√	√	√	√	-
• NFC Forum tags T1T, T2T, T3T, T4T and T5T		√	√	√	√	√	√
• NFC forum compliant embedded T4T for NDEF short record		√	√	√	√	√	√
7. Standards compliancy							
• NFC Forum Device Requirements v2.1		√	√	√	√	√	✗
• EMVCo 3.1 for PICC and PCD mode		Only PICC mode	√	Only PICC mode	Only PICC mode	√	EMVCo2.6 PCD
• ETSI/SCP 102 613 and 102 622 for SWP/HCI		√	√	√	√	√	✗
8. Support LPCD Function		√	√	√	√	√	√
Support M1 Function		✗	√	√	✗	√	✗
Support Alipay touch Function		√	√	√	√	√	√
9. PMU							
• Support Mobile Battery		2.5 V ~ 5.5 V	2.5 V ~ 5.5 V	2.5 V ~ 5.5 V	2.5 V ~ 5.5 V	2.5 V ~ 5.5 V	3.3V~4.2V
• I/O Operating Voltage		1.8 V / 3.3 V	1.2 V / 1.8 V	1.2 V / 1.8 V	1.8 V / 3.3 V	1.2 V / 1.8 V	3.3V
• Supply 2 power regulators to UICC in class B and class C		√	√	√	√	√	✗
10. Support multiple low-power modes (@VBAT=3.6V ,Temp =25°C)							
• Deep sleep mode (IBAT)		——	——	3.0uA	——	——	2.4uA
• Sleep mode (IBAT)		5.8uA	10.5uA	10.9uA	5.8uA	10.5uA	5uA(soft powedown)
• Card emulation standby mode (IBAT)		10.8uA	15.4uA	15.1uA	10.8uA	15.4uA	——
• LPCD polling mode(IBAT), if loop time is 500ms		250uA	223uA	300uA	250uA	223uA	8uA
11. Supported interfaces							
• GPIO interfaces (typ.)		11	11	4~8	8	8	--
• SWP interfaces up to 1.695 Mbit/s		2	2	2	1	1	0
• SPI interface up to 26 MHz		1	1	1	1	1	1
• I²C interfaces		1	1	1	1	1	1
• NCI protocol interface		√	√	√	√	√	✗
• HCI protocol interfaces		√	√	√	√	√	✗
12. System clock							
• Support 27.12MHz external crystal oscillator		√	√	√	√	√	√
• Integrated PLL unit based on mobile device reference clock		√	√	√	√	√	√
13. CPU *	eFlash: 128 KB	eFlash: 128 KB	eFlash: 256 KB	eFlash: 128 KB	eFlash: 128 KB	eFlash: 256 KB	--
	SRAM: 8 KB	SRAM: 8 KB	SRAM: 9 KB	SRAM: 9 KB	SRAM: 8 KB	SRAM: 9 KB	--
14. Supported systems		Android 8~15 Linux RTOS	Android 8~15 Linux RTOS	Android 8~15 Linux RTOS	Android 8~15 Linux RTOS	Android 8~15 Linux RTOS	Linux RTOS
15. with minimum number of external components							
• No external DCDC is required		√	√	√	√	√	√
• No external crystal is required, when Mobile provides clock		√	√	√	√	√	--
16. Target applications		Smart Phones Smart Wearable	Smart POSs Smart Wearable	Smart Phones Smart Wearable	Consumer electronic devices	Smart POSs Smart Wearable	Smart Wearable Smart Door Lock POS



NFC makes life better!