

NFC Tag/Interface IC Selection Guide

		NFC-ENABLER		PRODUCT AUTHENTICATION		SENSOR	
		SIC4310	SIC4311	SIC43NT	SIC43S1	SIC4340	SIC4341
NFC Forum tag type		TYPE 2					
User memory (Bytes)		228	228	144	816	192	192
Password Protection				√	√		
Internal Resonant Capacitor (pF)		30.3	30.3	50	50	50	50
Special Feature		UART and GPIO (8x GPIO Max.)	UART and GPIO (7x GPIO Max.)	Tampering Detection	Tampering Detecion and Mutual Authentication	ADC	Potentiostat Sensor Interface
RFD Pin							
RFD Pin Mode	RF Detection	<ul style="list-style-type: none"> •Push-Pull •Open Drain -Field Present -Communication start 					
	RF Detection Event	UID Read					
	Tampering Detection			√	√		
	Sleep Mode			√	√		
Power Harvesting and Comsumption	Power Harvesting	Up to 10mA	Up to 10mA				
	Standby Current	80uA	80uA				
	GPIO Output Sincking Current	6mA	6mA				
	GPIO Output Sourcing Current	6mA	6mA				
	External Idle Current Comsumption	80uA (XVDD pin)	0.1uA (VBAT pin)				
Tamper Feature	Max. Resistance of Tamper loop			200kΩ	200kΩ		
	Max. Tamper Length			2m	TBD		
	Tamper Status Mirror on NDEF			√	√		
	Tamper Status Size			1 byte	1 byte		
Dynamic Data	Event-triggering Dynamic NDEF			√	√		
	UID ASCII on NDEF			√	√		
	Rolling Code Mirror:Length			8 bytes	45 bytes		
	Rolling Code Generator Engine			Stream Cipher	OCB-AEC		
	Encrypt Communication				√		
	Counter Size			32 bits			
Secret Key			80 bits	128 bits			
Sensor Bias Characteristic	ADC Resolution					•10-bits ENOB •2x 8-bit DAC •0-1.275V	•10-bits ENOB •2x 8-bit DAC •0-1.275V
	Biasing Current Source					5mV/step	5mV/step
	Limited Voltage for Measurement					0-1.27V	0-1.27V
	Reference Voltage					1.28V	1.28V
	Special Function					3-channel multiplexed	Potentiostat Sensor Interface
Package Information	Pin Count	16	16	4	4	16	16
	Package Available	QFN 3x3	QFN 3x3	Dice on Wafer with Bumped, DFN	Dice on Wafer with Bumped, DFN	QFN 3x3	QFN 3x3
	Application	<ul style="list-style-type: none"> •Wireless Firmware upgrading •Interactive Poster •Industrial Machine Interface •Smart Toys 	<ul style="list-style-type: none"> •Wireless Firmware upgrading •Industrial Machine Interface •Metering/Vending Machine •Smart Toys 	<ul style="list-style-type: none"> •Product Authentication •Tampering Detection •Electronics Product Label •OTP Card •Promotion •Coupon/Ticket 	<ul style="list-style-type: none"> •Product Authentication •Tampering Detection •Secure NFC Tag •Small Payment 	<ul style="list-style-type: none"> •Sensor Interface •Voltage Measurement •Impedance (R-C) •Measurement 	<ul style="list-style-type: none"> •Potentiostat Type Sensor •Glucose Sensor