

Transponder Matrix

Overview of technologies supported by sesamsec RFID devices

Standard device configuration

supports over 60 RFID technologies

sesamsec functional extensions

P option

The P option available for some sesamsec devices is a functional extension that enables the device to support further RFID technologies, i.e. G-Prox, HID Prox technologies, Indala, ioProx or Nexwatch.

Apple NFC support*

V option**

supports custom private keys for Apple in combination with the A option

A option

access to passes stored in Apple mobile devices via NFC

*For Apple licensees only and eligible implementers. Please contact sesamsec for details.

**The V option is only available in combination with the A option.

Unless otherwise agreed with sesamsec, each sesamsec RFID device is delivered with a standard firmware version that might be older than the latest firmware developed by sesamsec. The standard firmware version of a sesamsec device can be changed using sesamsec SecoTool. In addition, qualified integrators or end users can also request a specific firmware version on the sesamsec website.

This transponder matrix gives an overview of all RFID technologies supported by sesamsec RFID devices running with sesamsec **FW 4.72 or a higher version**.

Overview of sesamsec RFID devices

Access control readers	LF	HF / NFC	BLE	Frontend
Secustos MU20 LEGIC	•	•	•	LEGIC SM-6300
Secustos SQ80 K LEGIC	•	•	•	LEGIC SM-6300
Secustos SQ80 LEGIC	•	•	•	LEGIC SM-6300
Time & Attendance terminal				
Sectime		•		LEGIC SM-4200

	standard	P option
HID MIFARE Classic SE		
HID MIFARE DESFire SE		
HID SEQS		
LEGIC Advant	•	•
NTAG2xx	•	•
NXP MIFARE Classic	•	•
NXP MIFARE Classic EV1	r/w enhanced security features on request	r/w enhanced security features on request
NXP MIFARE DESFire EV1	•	•
NXP MIFARE DESFire EV2/EV3	supported as part of the EV1 downward compatibility	supported as part of the EV1 downward compatibility
NXP MIFARE DESFire Light	supported as part of the EV1 downward compatibility	supported as part of the EV1 downward compatibility
NXP MIFARE Mini	•	•
NXP MIFARE Plus S	•	•
NXP MIFARE Plus X	•	•
NXP MIFARE Smart MX	r/w in transparent data exchange mode	r/w in transparent data exchange mode
NXP MIFARE Ultralight	•	•
NXP MIFARE Ultralight C	•	•
NXP MIFARE Ultralight EV1	r/w enhanced security features on request	r/w enhanced security features on request
SLE44R35	r/w in transparent data exchange mode	r/w in transparent data exchange mode
SLE66Rxx (my d-move)	r/w in transparent data exchange mode	r/w in transparent data exchange mode
Topaz		
Calypso	r/w in transparent data exchange mode	r/w in transparent data exchange mode
Calypso Innovatron protocol		
CEPAS	r/w in transparent data exchange mode	r/w in transparent data exchange mode
CTS		
Pico Pass	UID only	UID only
SRI4K		
SRI512		
SRIX4K		
SRT512		
EM4x33	r/w in transparent data exchange mode	r/w in transparent data exchange mode
EM4x35	r/w in transparent data exchange mode	r/w in transparent data exchange mode
HID iCLASS Legacy/SR/SE		
ICODE SLI	•	•
LEGIC Advant	•	•
M24LR16/64	•	•
MB89R118/119		
Pico Pass	UID only	UID only
SRF55Vxx (my d-vicinity)	r/w in transparent data exchange mode	r/w in transparent data exchange mode
Tag-it	•	•
NFC Forum Tag type 1		
NFC Forum Tag type 2	•	•
NFC Forum Tag type 3	•	•
NFC Forum Tag type 4	•	•
NFC Forum Tag type 5	•	•
Sony FeliCa	UID + r/w public area	UID + r/w public area
LEGIC Prime	•	•

Secustos MU20 LEGIC
 Secustos SQ80 K LEGIC
 Secustos SQ80 LEGIC

	standard	P option
	AWID	•
Cardax	Hash value only	Hash value only
CASI-RUSCO	•	•
Deister	Hash value only	Hash value only
EM4050	•	•
EM4100	•	•
EM4102	•	•
EM4150	•	•
EM4200	Only emulation of 4100/4102	Only emulation of 4100/4102
EM4305	•	•
EM4450	•	•
EM4550	•	•
G-Prox		Hash value only
HID 1326 Prox II		•
HID 1336 DuoProx II		•
HID 1346 ProxKey III		•
HID 1386 ISO Prox II		•
HID 1391 Micro Prox		•
HID Prox		•
HITAG 1/2/S	Without encryption	Without encryption
ICT	•	•
IDTECK	•	•
Indala		•
ioProx		•
ISONAS	•	•
Keri	•	•
Miro	•	•
Nedap	Hash value only	Hash value only
Nexwatch		•
Pyramid	•	•
O5	•	•
T5557	•	•
T5567	•	•
T5577	•	•
TITAN (EM4050)	•	•
UltraProx	•	•
UNIQUE	•	•
ZODIAC	•	•

125 kHz* (LF)

*125 kHz technologies require a local test and import license from the Russian Ministry of Trade and Industry (MINPROMTORC). This license has to be in place before ELATEC can accept any order to be shipped to Russia.

Apple technologies supported by sesamsec RFID devices*

Secustus SQ80 K LEGIC

Apple Access DESFire

*For Apple licensees only and eligible implementers. Please contact sesamsec for details.

Please note:

Apple technologies can be tested on request on other sesamsec devices. For best convenience reasons and best performance, no other RFID technology (LF, HF) should be enabled in parallel to Apple technologies. For system integrators and PCB module design-in, Apple may require additional testing and proof that the final product meets all requirements for Apple technologies.

Appendix

Terminology

Term	Explanation
Apple Access	Contactless NFC passes can be stored in an Apple mobile device (iOS). sesamsec uses the term "Access pass" for this type of passes. Access passes are stored in a secure environment on iOS devices. There are different storage formats of Access passes. sesamsec devices with Access pass support also use the underlying ECP 2.0 protocol. Access passes must not be confused with VAS passes.
ECP / ECP 2.0	Stands for "Enhanced Contactless Polling" protocol. ECP is a low-level contactless protocol defined by Apple, extending parts of the ISO 14443 specifications, to ensure best performance when detecting Apple mobile devices using NFC.
Transponder	The term "transponder" is an association of " transmitter " and " responder ". "RFID tag" and "RFID label" are common synonyms used for "transponder". Basically, an RFID transponder consists of a chip that contains information transmitted to an RFID reader through electromagnetic waves. A transponder can have different forms, like a card, a key fob or even a smartphone. The term "transponder" can also refer to any type of contactless-enabled smart cards.
VAS	Stands for "Value-Added Services". Apple VAS is an Apple wallet solution for many loyalty use-cases. Users can load so-called VAS passes into their wallet on their mobile devices (iOS). Most can be read visually (barcode, QR code). NFC-based VAS passes are available as well. Readers with VAS support can read these VAS passes. Technically, the ECP 2.0 protocol is used when reading VAS passes.

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