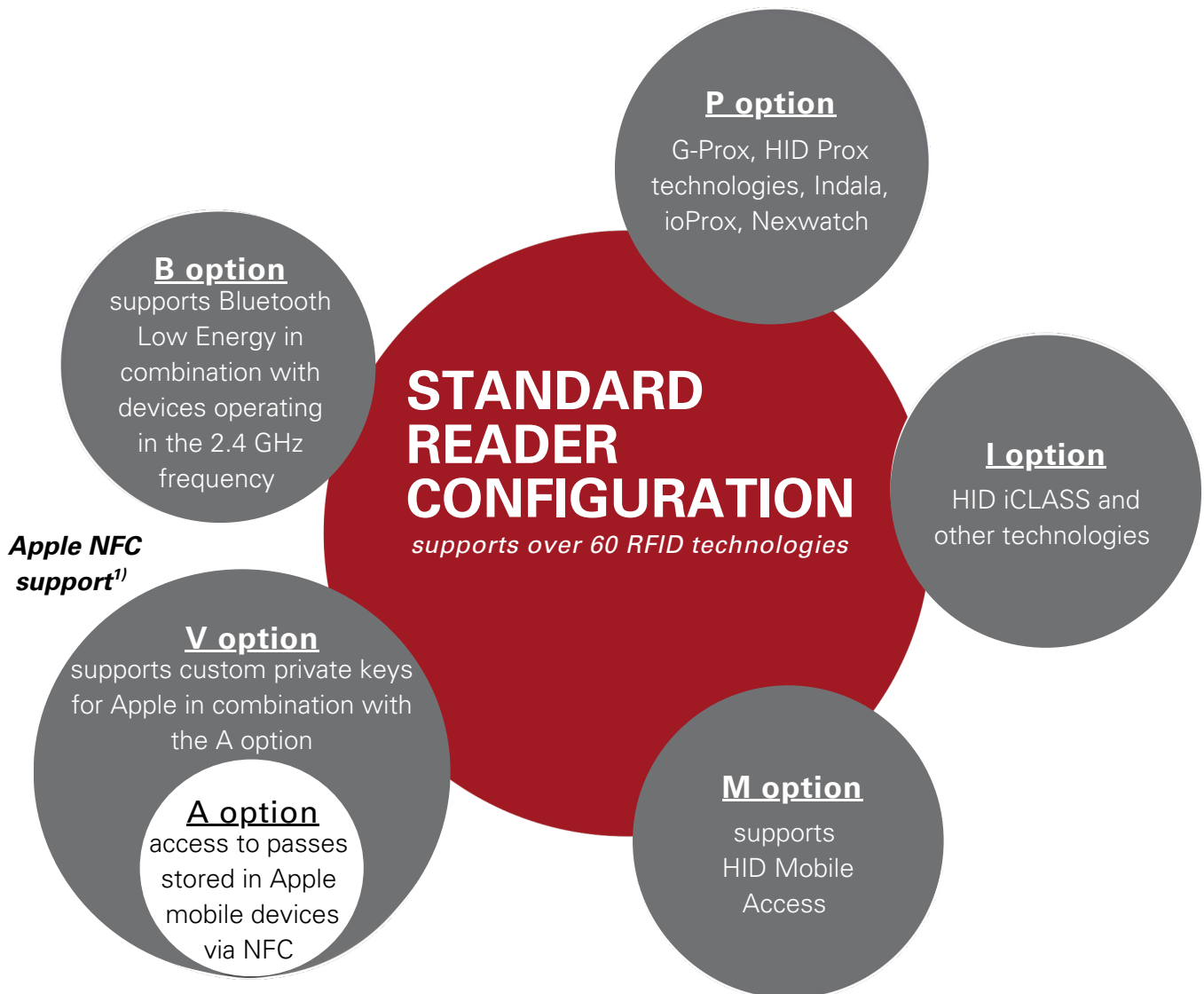


TRANSPONDER MATRIX

Overview of technologies supported by ELATEC RFID readers and modules.



*For Apple¹⁾ licensees only and eligible implementers. Please contact ELATEC for details.
The ¹⁾V option is only available in combination with the A option.*

ELATEC RFID readers and modules support a broad range of RFID technologies in the 125 kHz and 13.56 MHz frequency bands. Thanks to functional extensions (ELATEC "options"), the devices can even support additional technologies, as illustrated above. Unless otherwise agreed with ELATEC, each ELATEC RFID reader/module is delivered with a standard firmware version that might be older than the latest firmware developed by ELATEC. The standard firmware version of an ELATEC reader/module can be changed using the ELATEC AppBlaster tool. Alternatively, you can also download or request a specific firmware version on the ELATEC website.

This transponder matrix gives an overview of all technologies supported by ELATEC RFID readers and modules running with ELATEC FW 5.20 or a higher version.

PRODUCT OVERVIEW

<u>Secustos Family</u> Secustos MU20 LEGIC Secustos SQ80 K LEGIC Secustos SQ80 LEGIC TWN4 Secustos SG30	<u>TWN4 Mini Family</u> TWN4 Mini EVP SE M HF TWN4 Mini EVP SI M HF TWN4 MultiTech HF Mini	<u>TWN4 MultiTech Series</u> TWN4 MultiTech* TWN4 MultiTech M*	<u>TWN4 MultiTech 2 Series</u> TWN4 MultiTech 2 TWN4 MultiTech 2 HF [PCSC] TWN4 MultiTech 2 LF HF TWN4 MultiTech 2 LF* TWN4 MultiTech 2 M TWN4 MultiTech 2 M HF TWN4 MultiTech 2 M LF* TWN4 MultiTech 2 M LF HF
<u>TWN4 MultiTech 3 series</u> TWN4 MultiTech 3 M TWN4 MultiTech 3 M LF* TWN4 MultiTech 3 M LF HF TWN4 MultiTech 3 Plus M	<u>TWN4 MultiTech Nano series</u> TWN4 MultiTech Nano M TWN4 MultiTech Nano Plus M	<u>TWN4 MultiTech SmartCard series</u> TWN4 MultiTech SmartCard*	<u>TWN4 Palon Compact series¹⁾</u> TWN4 Palon Compact M TWN4 Palon Compact M Light TWN4 Palon Compact Panel TWN4 Palon Compact Panel Light TWN4 Palon Compact Wall TWN4 Palon Compact Wall Light
<u>TWN4 Palon Square series¹⁾</u> TWN4 Palon Square M LF HF	<u>TWN4 Slim series</u> TWN4 Slim TWN4 Slim JP	<u>TWN4 USB Front Reader series</u> TWN4 USB Front Reader	<u>TWN4 MultiTech 2 LEGIC series</u> TWN4 MultiTech 2 LEGIC TWN4 MultiTech 2 LEGIC LF HF TWN4 MultiTech 2 LEGIC M TWN4 MultiTech 2 LEGIC M LF HF
<u>TWN4 MultiTech 3 LEGIC series</u> TWN4 MultiTech 3 LEGIC M TWN4 MultiTech 3 LEGIC M LF HF	<u>TWN4 MultiTech LEGIC series</u> TWN4 MultiTech LEGIC* TWN4 MultiTech LEGIC M*	<u>TWN4 MultiTech Nano LEGIC series</u> TWN4 MultiTech Nano LEGIC 42 M TWN4 MultiTech Nano LEGIC 63 M	<u>TWN4 MultiTech SmartCard LEGIC series</u> TWN4 MultiTech SmartCard LEGIC 42* TWN4 MultiTech SmartCard LEGIC M*
<u>TWN4 Palon Compact LEGIC series¹⁾</u> TWN4 Palon Compact LEGIC M TWN4 Palon Compact LEGIC M Light TWN4 Palon Compact LEGIC Panel TWN4 Palon Compact LEGIC Panel Light TWN4 Palon Compact LEGIC Wall TWN4 Palon Compact LEGIC Wall Light	<u>TWN4 Palon One LEGIC series¹⁾</u> TWN4 Palon One LEGIC M LF HF*	<u>TWN4 Slim LEGIC series</u> TWN4 Slim LEGIC* TWN4 Slim MK2 LEGIC	<u>TWN4 USB Front Reader LEGIC series</u> LEGIC series TWN4 USB Front Reader LEGIC

*EOL: These products have been discontinued. Please refer to the corresponding Product Discontinuation Notifications (PDN) at elatec-rfid.com/int/elatec-end-of-lifecycle-products for more information.

¹⁾ Note: A supplementary agreement is required for use in physical access control environment. Please contact our sales team for more information.



		All readers/modules of the following series: Devices with NXP frontend	All readers/modules of the following series: Devices with LEGIC frontend	All readers/modules of the following series: Devices with LEGIC frontend
		TWN4 Mini, TWN4 MultiTech, TWN4 MultiTech 2, TWN4 MultiTech 3, TWN4 MultiTech Nano, TWN4 MultiTech SmartCard, TWN4 Palon Compact, TWN4 Palon Square, TWN4 Slim, TWN4 USB Front Reader	Secustos ³⁾ , TWN4 MultiTech LEGIC, TWN4 MultiTech Nano LEGIC, TWN4 MultiTech SmartCard LEGIC, TWN4 Palon Compact LEGIC, TWN4 Palon One LEGIC, TWN4 Slim LEGIC, TWN4 USB Front Reader LEGIC	TWN4 MultiTech 2 LEGIC, TWN4 MultiTech 3 LEGIC, TWN4 Slim MK2 LEGIC
13.56 MHz (HF)	ISO 14443A	HID MIFARE Classic SE	Requires I option ¹⁾	Requires I option ¹⁴⁾
		HID MIFARE DESFire SE	Requires I option ¹⁾	Requires I option ¹⁴⁾
		HID SEOS	Requires I option ¹⁾	Requires I option ¹⁴⁾
		LEGIC Advant	UID only	•
		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/EV2/EV3/Light	•	•
		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
		SLE44R24	r/w in transparent data exchange mode	r/w in transparent data exchange mode
	ISO 14443B	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	r/w in transparent data exchange mode	r/w in transparent data exchange mode
		CEPAS	r/w in transparent data exchange mode	r/w in transparent data exchange mode
		CTS	•	•
		Pico Pass	UID only	UID only
	ISO 15693	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	Requires I option ¹⁾	Requires I option ¹⁴⁾
		ICODE SLI	•	•
	ISO 18092 ECMA-340	LEGIC Advant	UID only	•
		M24LR16/64	•	•
		MB89R118/119	Not supported by TWN4 MultiTech, TWN4 MultiTech SmartCard and TWN4 Mini reader series	
		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
		LEAF	Requires one free SAM slot for MIFARE SAM AV2/AV3 card ²⁾	Requires one free SAM slot for MIFARE SAM AV2/AV3 card ²⁾
		LEGIC Prime	•	•
		PKOC	•	•
		Transact	•	•

¹⁾ Requires one free SAM slot for HID iCLASS SE processor (except TWN4 Slim reader models with embedded HID iCLASS SE processor).

²⁾ Some ELATEC readers/modules have one free SAM slot only and cannot support LEAF and the I option at the same time. Refer to the respective product data sheets for more information.

³⁾ Only MIFARE Classic 1k and EM4102 have been tested as part of the UL 294 certification granted to Secustos readers.

⁴⁾ Not supported by devices with LEGIC frontend SM-4500.

125 kHz (LF)	AWID	•
	Cardax	Hash value only
	CASI-RUSCO	•
	Deister	Hash value only
	EM4050	•
	EM4100	•
	EM4102	•
	EM4150	•
	EM4200	only emulation of 4100/4102
	EM4205	only emulation of 4100/4102
	EM4x33	•
	EM4x35	•
	EM4x37	•
	EM4305	•
	EM4450	•
	EM4550	•
	G-Prox	Hash value only Requires P option
	HID 1326 Prox II	Requires P option
	HID 1336 DuoProx II	Requires P option
	HID 1346 ProxKey III	Requires P option
	HID 1386 ISO Prox II	Requires P option
	HID 1391 Micro Prox	Requires P option
	HID Prox	Requires P option
	HITAG 1/2/S	Without encryption
	ICT	•
	IDTECK	•
	Indala	Requires P option
	ioProx	Requires P option
	ISONAS	•
	Keri	•
	Miro	•
	Nedap	Hash value only
	Nexwatch	Requires P option
	Pyramid	•
	Q5	•
	T5557	•
	T5567	•
	T5577	•
	TITAN (EM4050)	•
	UltraProx	•
	UNIQUE	•
	ZODIAC	•
134.2 kHz ¹⁾ (LF)	Cotag	Requires P option
	FDX-B / EM4105	•
	PAC	•
	TIRIS / HDX	•

¹⁾ 134.2 kHz technologies require the ELATEC E option and are only available for TWN4 MultiTech 3 Plus M and TWN4 MultiTech Nano Plus M. Contact ELATEC for more information.

Supported mobile (wallet) credentials

Supported Wallet Passes (NFC)	Apple	Google	Notes
ELATEC Access	• (ECP 2.0)	•	Google Wallet: compatible with all ELATEC readers/modules. Apple Wallet: compatible with Apple certified readers/modules only (ELATEC AV options required).
Nedap Mobile Access	• (ECP 2.0)	•	Apple certified readers only. ELATEC AV options required.
Transact	• (ECP 2.0)	•	Apple certified readers only. ELATEC AVT options required.
Wavelynx Meridian	• (ECP 2.0)		Apple certified readers only*. Wavelynx SAM card and ELATEC AV options required.
Wavelynx MIFARE 2GO		•	Supported by all ELATEC readers/modules*. Wavelynx SAM card required.
Access Grid	• (ECP 2.0)		Apple certified readers only. ELATEC AV options required.
Google Smart Tap		•	Supported by all ELATEC readers/modules.
Apple VAS	• (VAS)		Apple VAS certified readers only. ELATEC AV options required.

* The readers/modules must be equipped with one free SAM slot to embed the Wavelynx SAM card.

Supported mobile (In App) credentials

Supported (In) App Credentials	NFC (Android)	BLE	Notes
ELATEC Mobile Badge		•	Only supported by ELATEC readers with BLE capabilities.
Safetrust		•	Only supported by ELATEC readers with BLE capabilities.
KleverKey		•	Only supported by ELATEC readers with BLE capabilities.
HID Mobile Access	•	•	TWN4 MultiTech 2 only. ELATEC PIMBAV options required.
PKOC	•	•	Supported by all ELATEC readers/modules.
HCE (Host Card Emulation)	•	•	Supported by all ELATEC readers/modules
Orange Pack ID BLE/HCE*	•	•	Supported by all ELATEC readers/modules (NFC on Apple devices also supported).
LEGIC Connect Wallet			On request
LEGIC Connect BLE/HCE	•	•	Secustos readers, TWN4 Slim MK2 LEGIC and TWN4 MultiTech Nano 63 M only

* Iso supported by iOS devices

Apple certified readers/modules

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

Secustos SQ80 K LEGIC	Apple Access DESFire ¹⁾
TWN4 Mini Reader MIFARE NFC	
TWN4 MultiTech 2	
TWN4 MultiTech 2 HF	
TWN4 MultiTech 2 LF HF	
TWN4 MultiTech 2 M	
TWN4 MultiTech 2 M HF	
TWN4 MultiTech 2 M LF HF	
TWN4 MultiTech 3 M LF HF	
TWN4 Secustos SG30	
TWN4 Slim MK2 LEGIC	
TWN4 USB Front Reader	
TWN4 USB Front Reader LEGIC	
TWN4 MultiTech 3 M	Apple Access DESFire ¹⁾ and VAS ²⁾
TWN4 MultiTech 3 M LF HF	

1) Apple Access DESFire implies the support of the ECP2.0 protocol.

2) Apple VAS is not included in Apple Access DESFire.

Please note:

- The ELATEC modules listed above have been tested and certified as modules. However, the end products embedding ELATEC modules still need to be certified as a final product.
- Other ELATEC RFID readers/modules can be tested and certified for Access DESFire and/or VAS on request. 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.



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