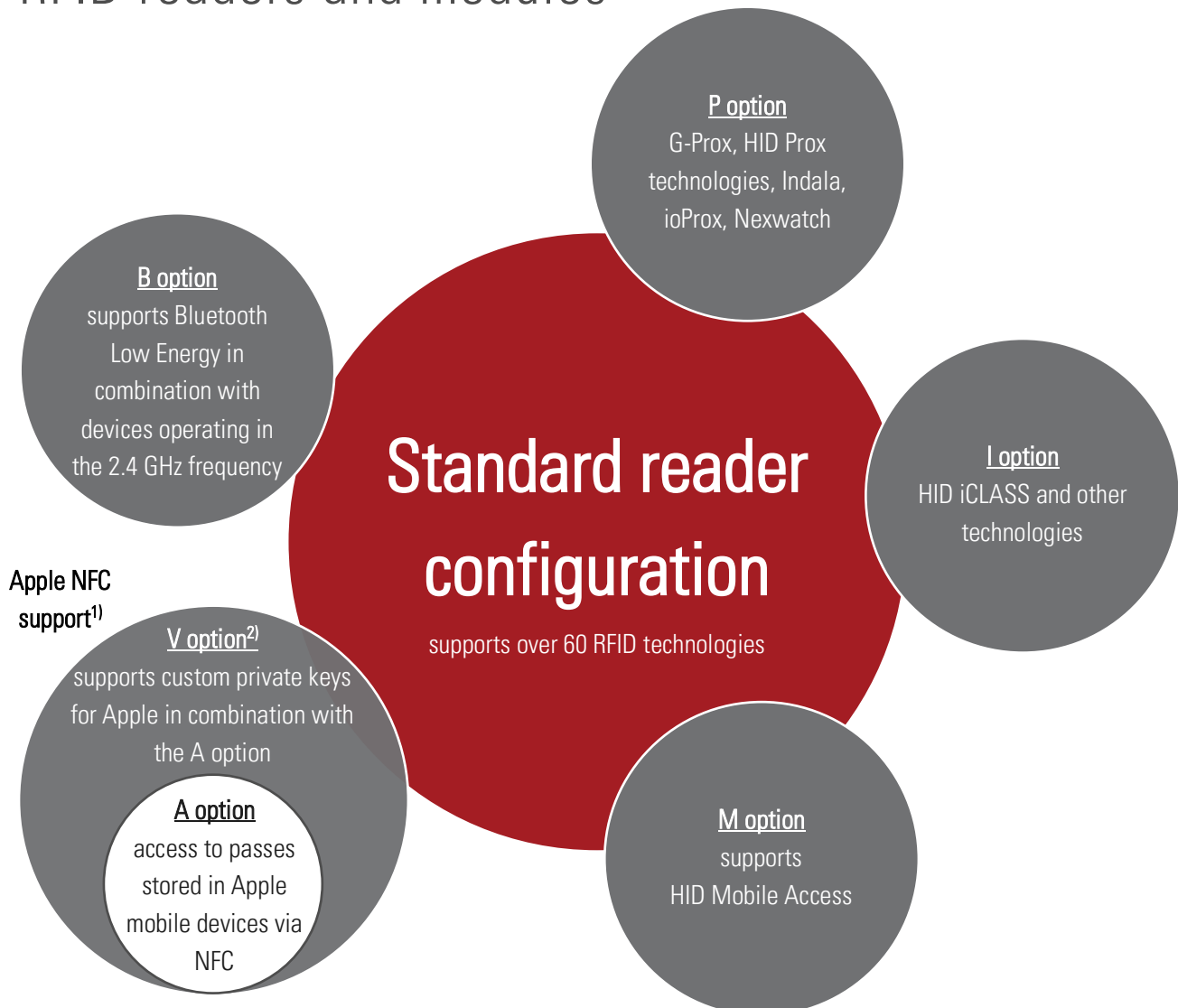


Transponder Matrix

Overview of technologies supported by ELATEC RFID readers and modules



¹⁾For Apple licensees only and eligible implementers. Please contact ELATEC for details.

²⁾The 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 4.90 or a higher version**.

Product overview

| | | | |
|---|---|--|--|
| <p><u>Secustos family</u></p> <p>Secustos MU20 LEGIC Secustos SQ80 K LEGIC Secustos SQ80 LEGIC</p> | <p><u>TWN4 Mini family</u></p> <p>TWN4 Mini EVP SE M HF TWN4 Mini EVP SI M HF TWN4 MultiTech HF Mini</p> | <p><u>TWN4 MultiTech series</u></p> <p>TWN4 MultiTech* TWN4 MultiTech M*</p> | <p><u>TWN4 MultiTech 2 series</u></p> <p>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</p> |
| <p><u>TWN4 MultiTech 3 series</u></p> <p>TWN4 MultiTech 3 M TWN4 MultiTech 3 M LF* TWN4 MultiTech 3 M LF HF</p> | <p><u>TWN4 MultiTech Nano series</u></p> <p>TWN4 MultiTech Nano M</p> | <p><u>TWN4 MultiTech SmartCard series</u></p> <p>TWN4 MultiTech SmartCard*</p> | <p><u>TWN4 Palon Compact series</u></p> <p>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</p> |
| <p><u>TWN4 Palon Square series</u></p> <p>TWN4 Palon Square M LF HF</p> | <p><u>TWN4 Slim series</u></p> <p>TWN4 Slim TWN4 Slim JP</p> | <p><u>TWN4 USB Front Reader series</u></p> <p>TWN4 USB Front Reader</p> | <p><u>TWN4 MultiTech 2 LEGIC series</u></p> <p>TWN4 MultiTech 2 LEGIC TWN4 MultiTech 2 LEGIC LF HF TWN4 MultiTech 2 LEGIC M TWN4 MultiTech 2 LEGIC M LF HF</p> |
| <p><u>TWN4 MultiTech 3 LEGIC series</u></p> <p>TWN4 MultiTech 3 LEGIC M TWN4 MultiTech 3 LEGIC M LF HF</p> | <p><u>TWN4 MultiTech LEGIC series</u></p> <p>TWN4 MultiTech LEGIC* TWN4 MultiTech LEGIC M*</p> | <p><u>TWN4 MultiTech Nano LEGIC series</u></p> <p>TWN4 MultiTech Nano LEGIC 42 M TWN4 MultiTech Nano LEGIC 63 M</p> | <p><u>TWN4 MultiTech SmartCard LEGIC series</u></p> <p>TWN4 MultiTech SmartCard LEGIC 42* TWN4 MultiTech SmartCard LEGIC M*</p> |
| <p><u>TWN4 Palon Compact LEGIC series</u></p> <p>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</p> | <p><u>TWN4 Palon One LEGIC series</u></p> <p>TWN4 Palon One LEGIC M LF HF*</p> | <p><u>TWN4 Slim LEGIC series</u></p> <p>TWN4 Slim LEGIC</p> | <p><u>TWN4 USB Front Reader LEGIC series</u></p> <p>TWN4 USB Front Reader LEGIC</p> |

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

| | All readers/modules of the following series: | | | |
|-----------------------|---|--|--|--|
| | Devices with NXP frontend | Devices with LEGIC frontend | 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 3 LEGIC, 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 | |
| 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 | 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 | 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 | 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 | 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 | r/w enhanced security features on request |
| | SLE44R35 | r/w in transparent data exchange mode | 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 | r/w in transparent data exchange mode | |
| Topaz | • | • | Requires I option ¹⁴⁾ | |
| ISO 14443B | 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 | r/w in transparent data exchange mode |
| | CTS | • | • | Requires I option ¹⁴⁾ |
| | Pico Pass | UID only | UID only | UID only |
| | SRI4K | • | • | Requires I option ¹⁴⁾ |
| | SRI512 | • | • | Requires I option ¹⁴⁾ |
| | SRIX4K | • | • | Requires I option ¹⁴⁾ |
| SRT512 | • | • | Requires I option ¹⁴⁾ | |
| ISO 15693 | EM4x33 | r/w in transparent data exchange mode | 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 | r/w in transparent data exchange mode |
| | HID iCLASS Legacy/SR/SE | Requires I option ¹⁾ | • | Requires I option ¹⁴⁾ |
| | ICODE SLJ | • | • | • |
| | LEGIC Advant | UID only | • | • |
| | M24LR16/64 | • | • | • |
| | MB89R118/119 | Not supported by TWN4 MultiTech, TWN4 MultiTech SmartCard and TWN4 Mini reader series | • | Requires I option ¹⁴⁾ |
| | Pico Pass | UID only | UID only | UID only |
| | SRF55Vxx (my d-vicinity) | r/w in transparent data exchange mode | r/w in transparent data exchange mode | r/w in transparent data exchange mode |
| | Tag-it | • | • | • |
| ISO 18092 ECMA-340 | NFC Forum Tag type 1 | • | • | Requires I option ¹⁴⁾ |
| | 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 | UID + r/w public area |
| | LEAF | AV2 only, requires one free SAM slot for MIFARE SAM AV2 card ²⁾ | AV2 only, requires one free SAM slot for MIFARE SAM AV2 card ²⁾ | AV2 only, requires one free SAM slot for MIFARE SAM AV2 card ²⁾ |
| LEGIC Prime | • | • | • | |

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 kHz¹⁾ (LF)

| | |
|----------------------|--------------------------------------|
| AWID | • |
| Cardax | Hash value only |
| CASI-RUSCO | • |
| Deister | Hash value only |
| EM4050 | • |
| EM4100 | • |
| EM4102 | • |
| EM4150 | • |
| EM4200 | only emulation of 4100/4102 |
| 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 | • |

¹⁾ 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.

Supported HID technologies

| | |
|------------------|-------------------|
| TWN4 MultiTech 2 | HID Mobile Access |
|------------------|-------------------|

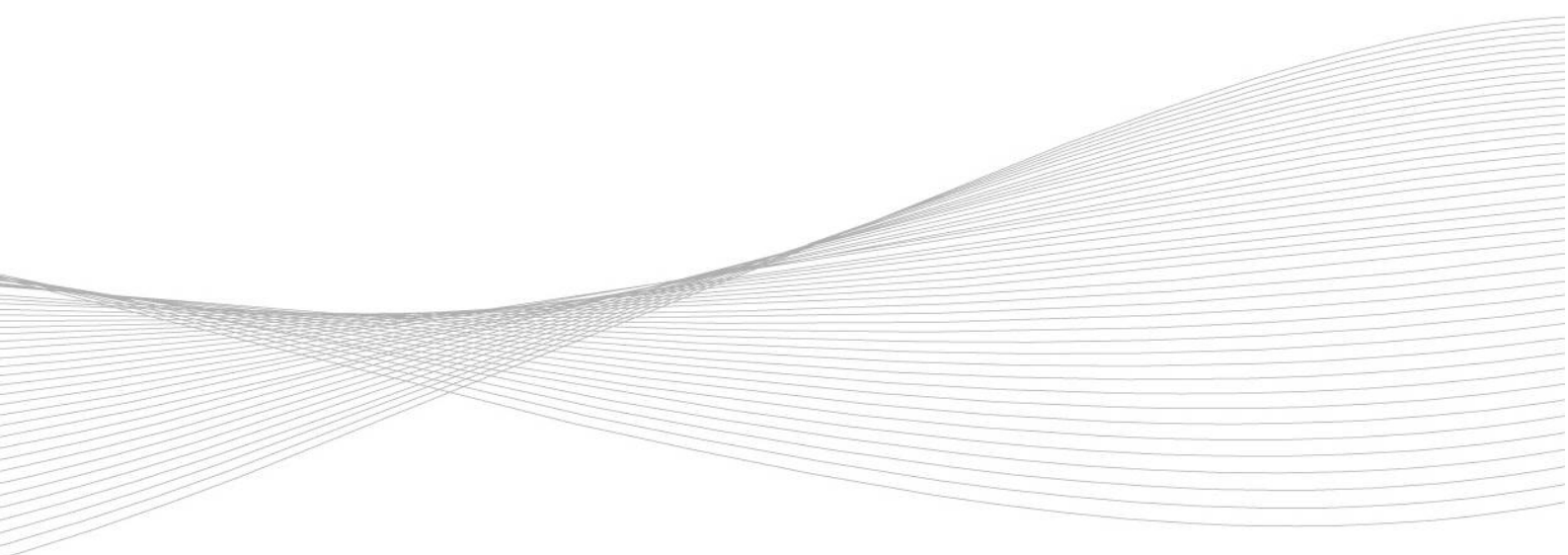
Supported Apple technologies*

| | |
|-------------------------|----------------------|
| TWN4 MultiTech 2 | Apple Access DESFire |
| TWN4 MultiTech 3 M | Apple VAS only |
| Secustos SQ80 (K) LEGIC | Apple Access DESFire |

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

Please note:

Apple technologies can be tested on request on other RFID readers/modules of the ELATEC group. 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.



EMEA

ELATEC GmbH
Puchheim, Germany
+ 49 89 552 9961 0
sales-rfid@elatec.com

AMERICAS

ELATEC Inc.
Palm City, Florida, USA
+ 1 772 210 2263
americas-info@elatec.com

MIDDLE EAST

ELATEC Middle East Trading
FZE, United Arab Emirates
+ 971 50 932 2691
middle-east-info@elatec.com

ASIA PACIFIC

ELATEC Singapore
Shaw Centre, Singapore
+ 65 96704348
apac-info@elatec.com

elatec.com

ELATEC reserves the right to change any information or data in this document without prior notice. ELATEC declines all responsibility for the use of this product with any other specification but the one mentioned above. Any additional requirement for a specific customer application has to be validated by the customer themselves at their own responsibility. Where application information is given, it is only advisory and does not form part of the specification. Disclaimer: All names used in this document are registered trademarks of their respective owners.