

**K632 FAMILY - END-OF-LIFE NOTICE**

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Dear customer,

The SpringCard K663 module has been introduced in 2013. It offers the same features as former K632, yet overtaking its performances.

Therefore, the K632 and all products based on the K632 core (or on earlier K531 core) will be retired by the end of 2015.

They all are replaced by equivalent products, based on the K663 core. The technical differences between both generations are listed on the pages after.

Old product	Part No.	Name	Replaced by	Part No.
K632 (K531)		ISO 14443 A & B + ISO 15693 OEM coupler module (without antenna)	<b>K663A</b>	<b>SC2193</b>
K632-TTL (K531-TTL)	SC0305	ISO 14443 A & B + ISO 15693 OEM coupler, RS-TTL interface	<b>K663S-TTL</b>	<b>SC13137</b>
K632-232 (K531-232)	SC0199	ISO 14443 A & B + ISO 15693 OEM coupler, RS-232 interface	<b>K663S-232</b>	<b>SC3064</b>
K632-485 (K531-485)		ISO 14443 A & B + ISO 15693 OEM coupler, RS-485 interface	<b>K663S-485</b>	<b>SC14180</b>

The new product page is already online at

<http://www.springcard.com/en/products/k663.html>

Please browse to this page to retrieve the Information Sheet and the links to the complete documentations.

**Products based on the K632 could be ordered until 30/06/2015. Last ship date is fixed to 31/12/2015. Customers are welcomed to evaluate the an equivalent product based on K663 in the interval.**

Please contact [sales@springcard.com](mailto:sales@springcard.com) should you need to arrange a loan or to buy a first batch for evaluation purposes.

Thanking you for your renewed confidence,

Denis Pietersoone, *President*

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### **IT MAY BE THE RIGHT TIME TO TAKE THE MOVE FOR USB PC/SC COUPLERS!**

We would remind you that since 2008-2009, SpringCard's strategy regarding PC-based readers/writers is to focus on PC/SC couplers. Since more and more embedded platforms are moving to PC-grade systems (embedded Linux, Windows XPe or 7e), it could be the right time to replace a serial-coupler, based on K531 or K632, by a USB couple, based on the high performance H663 core.

**Customers currently using K632 together with a Windows or Linux system are therefore encouraged to evaluate our new PC/SC OEM solutions: H663S-USB, TwistyWriter-USB, CrazyWriter HSP...**

Please contact [sales@springcard.com](mailto:sales@springcard.com) if you wish to evaluate one of our USB couplers.

### **FOR MORE INFORMATION**

Don't hesitate to contact us on [info@springcard.com](mailto:info@springcard.com) . Visit regularly our technical blog at

[www.springcard.com/blog](http://www.springcard.com/blog)

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### TECHNICAL DIFFERENCES BETWEEN K632 AND K663

#### Major changes

- Upon startup, the K663 sends the string “K663” (instead of “K632” for the K632 family, and “K531” for the earlier K531 family),
- There are now 2 hardware groups:
  - The K663A works with an unbalanced antenna, as the K632 did.
  - The K663S works with a balanced antenna. A balanced antenna provides greater operating distance (or could be smaller for the same target distance).
- In-field firmware upgrade is now performed using SpringCard FUU application (instead of Renesas FDT),
- In-field firmware upgrade requires that the /RESET input of the module is under control of the computer's RTS output line.

#### Minor changes

- More flexibility has been added in the firmware, the “external” behaviour (LED, buzzer, RF settings etc) could be finely defined using non-volatile configuration registers,
- The communication with the coupler is globally speaking a little faster,
- A complete polling sequence (FIND command with all protocols requested) takes a little longer due to the new protocols that are now supported.

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### New features

The K663 adds support for these cards/tags:

- Broadcom (Innovision) Topaz/Jewel (NFC Forum Type 2 Tag)
- FeliCa (read ID only), FeliCa Lite-S (NFC Forum Type 3 Tag)
- Inside Contactless PicoTag and HID iClass (read ID only)
- Kovio RF Barcode (read ID only)
- Atmel CryptoRF

The K663 is also able to communicate according to ISO 18092 (NFCIP-1), performing the initiator role and using the passive communication mode only.

The K663 supports a “Low Power Card Detection” mode, which allows the device to remain in standby, leaking less than 6mA @5V, and wake-up automatically when a card arrives.

### Improved features

- The K663 is qualified for a wider temperature range -20°C → +70°C (0°C → +70°C for K632)
- The K663 could be powered from 3V to 5V DC (5V DC only for K632)
- The read/write operations are globally speaking a little faster.

### Removed features

The K663 does not support these cards/tags (where the K632 did):

- ASK CTS256B and CTS512B (disposable contactless tickets using based on ISO 14443-2)
- NXP ICODE1 (replaced for years by ICODE-SLI, which is fully ISO 15693 and therefore fully supported).

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