

RFID Technology

Radio Frequency Identification

While classic barcode scanning remains popular, RFID (Radio Frequency Identification) has become a reliable auto-ID process for the mobile data capture sector. Over the years, different RFID techniques have been developed customized to the specific fields of application. We have been incorporating RFID systems in our mobile data capture units to suit the individual requirements of our customers.



RFID capable products of the Skeye series



skeye.allegro LS
skeye.allegro



skeye.integral 2



skeye.pad XSL

Skeye Germany
Höft & Wessel AG
Rotenburger Str. 20, 30659 Hannover
+49 511 6102-0
+49 511 6102-411 Fax
info@hoeft-wessel.de
www.hoeft-wessel.com

Skeye UK
Westmead Industrial Estate
Westlea, Swindon, SN5 7AD
+44 1793 647-942
+44 1793 647-814 Fax
info@skeye.com
www.skeye.com

Skeye USA
12905 S.W. 129th Avenue
Miami, FL 33186
+1 305 909-0173
+1 305 596-7222 Fax
info@skeye-usa.com
www.skeye-usa.com

PDEs with UHF Reader 868 MHz



Hardware	Intel PXA 270 624 MHz 128 MB RAM/128 MB Flash 3,5" QVGA colour-TFT with touchscreen Integrated laser scanner USB port RS232 port Rugged case to IP54 standard Pistol grip with trigger Various keyboards
Options	2D imager Embedded WLAN module 802.11b/g Bluetooth (BT 1.2, Class 2) GPRS (Triband, Class 10)
Software	Windows CE 5.0 Scanner API and ‚BarcodeConfig‘: configures and controls scanner UHF reader API: configures and controls UHF reader Various system configuration interfaces (such as keypad configuration) SysBackup backup tool: backs up data, settings and databases SDK for C++ developed under EVC 4
Accessories	Docking station: USB/RS232 <i>Optional:</i> with integrated modem, ISDN TA, Ethernet Batteries 3400 mAh

Typical Applications

EPCglobal compliant data capture of pallets, boxes and trays in the retail business; data capture of objects in the industry, production or logistics; data capture from a distance; data capture of many objects simultaneously.

PDEs with Transponder Reader Type TIRIS® 134.2 kHz

Incorporated in skeye.allegro and skeye.allegro LS for contactless reading and writing of TIRIS® transponders.

Reader Features	
Frequency	134.2 kHz FSK
Read technology	Read/write
Read distance	Depending on transponder size and environmental cond., up to 15 cm
For chip type	TIRIS® (Texas Instruments)
Antenna	Ergonomic in front area



skeye.allegro and skeye.allegro LS

Transponder Type TIRIS® 134.2 kHz, FSK, hdx

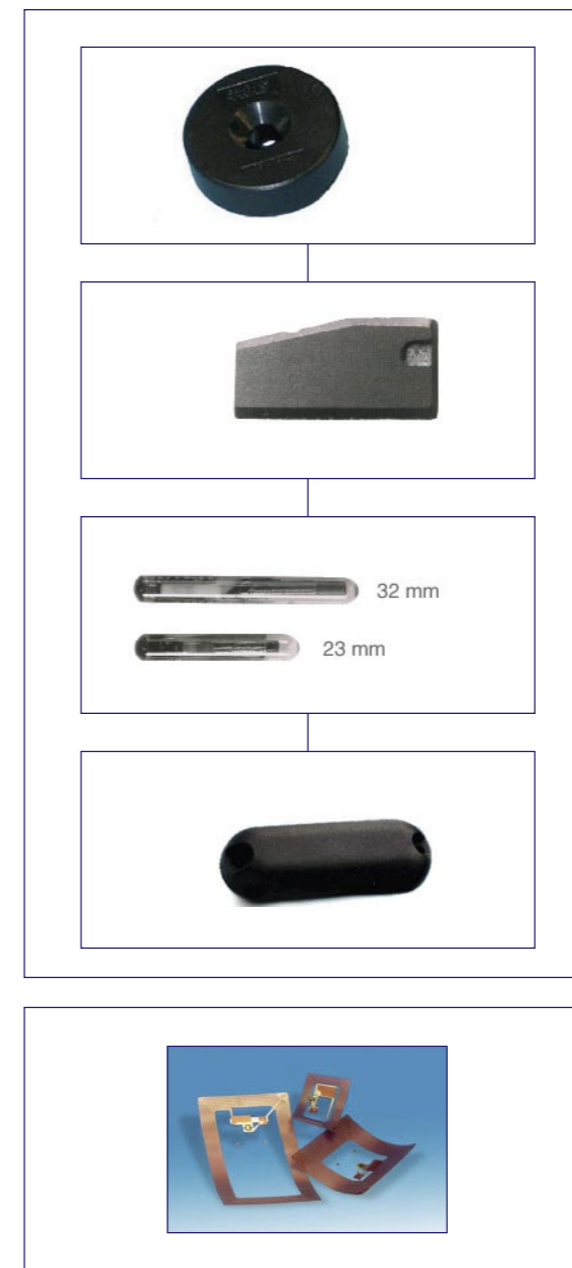
Transponder Features	
Design	Plastic card, 84 x 54 mm
Chip type	TIRIS®, read/write
Memory	80 bits, of which 64 bits are writeable
Frequency	Transponder responds at 134.2 kHz (1) and 123.2 kHz (0)
Read distance	Depending on environmental conditions, up to 15 cm

Typical Applications

Animal identification, agriculture, item management, lock and key antitheft systems, for instance in vehicles.

Transponders for 134.2 kHz

The transponders or tags are an important component in any RFID installation. TIRIS® tag designs differ greatly with regard to shape, size and specification. The user can select the type most suited to his requirements. When selecting the correct tag type, the following must be considered: environmental factors such as humidity, cleaning agents, mechanical stress, the type of object integration such as attached to metal surfaces.



Transponder 13.56 MHz, ISO 15693, type Smartlabel

PDEs with Transponder Reader 13.56 MHz, ISO 15693, Type Smartlabel

Contactless reading and writing of Smartlabel transponders. Integratable into all skeye-type units: skeye.integral, skeye.allegro, skeye.allegro LS, skeye.pad XSL. (Illustrations of the units can be found on p. 4.)

Reader Features	
Frequency	13,56 MHz
Read technology	Read/write
Read distance	Depending on transponder size up to 5 cm
For chip type	I-Code® (Philips) TagIt® (Texas Instruments) my-d® (Infineon) VarioSens® (KSW-Microtec) TempSens® (KSW-Microtec)
Antenna	On-board
Special	Reader transponder protocol supports transparent mode

Transponder 13.56 MHz, ISO 15693, Type Smartlabel

Transponder Features	
Chip type	I-Code® (Philips) TagIt® (Texas Instruments) my-d® (Infineon) Further types according to ISO15693
Designs	As Smartlabel in chip card size ISO 7810, printable adhesive labels, special designs e. g. for metal surfaces
Semiactive tags	TempSens® (KSW Microtec) Temperature loggers

Typical Applications

Established worldwide standard for item management for instance in libraries, manufacturing process and material flow control, special solutions with active sensing, e. g. temperature loggers.