



Products need labeling  
UHF RFID label printers

**SQUIX**  
Made in Germany

# SQUIX UHF RFID label printers



SQUIX label printers integrating UHF RFID options enable highest industrial reliability in processes related to writing and printing RFID labels.

Three UHF RFID modules are provided as options, each optimized for a specific class of RFID labels: common RFID tags, on-metal RFID tags and mini RFID tags

A UHF RFID option qualifies already for a wide range of RFID labels. In addition, cab supports the development and qualification of customized solutions.

Comprehensive periphery and excellent programmability further qualify SQUIX UHF RFID label printers for solutions based on applications.

Next to RFID technology, cab supports the latest communication interfaces such as OPC UA and WebDAV, enabling a printer integrate to complex logistics systems.



For further information see  
[www.cab.de/en/squix-rfid](http://www.cab.de/en/squix-rfid)

# Technical data of label printers

● typical ○ possible ■ standard □ option

RFID label printer		Type	SQUIX 4.3 M		SQUIX 4 M	
Material guidance		centered				
Printing method	Thermal transfer	●	●	●	●	
	Thermal direct	●	●	○	○	–
Printable resolution	dpi	203	300	300	600	
Print speed	up to mm/s	300	300	300	150	
Print width	up to mm	104	108.4	105.7	105.7	
<b>Materials</b>						
RFID labels	according to specifications as described separately, added by all materials printable by a SQUIX 4M printer					
	Roll diameter	up to mm	205			
	Core diameter	mm	38 - 76			
	Winding		outside or inside			
Liner	Width	up to mm	9 - 114			
Ribbon	Coating		outside or inside			
	Roll diameter	up to mm	90			
	Core diameter	mm	25			
	Length	up to m	600			
	Width	mm	25 - 114			
<b>Printer dimensions and weight</b>						
Width x Height x Depth		mm	252 x 288 x 520			
Weight		kg approx.	12			
<b>Interfaces</b>						
RS232C		1,200 to 230,400 bauds / 8 bits				
USB 2.0		Hi-speed device to connect a PC				
Ethernet		10/100 Mbit/s				
1 USB host on the operation panel	to plug a	service key or USB memory stick				
1 USB host on the operation panel	to plug a	USB WLAN stick 2.4 GHz 802.11b/g/n				
2 USB hosts on the back of the device	to plug a	keyboard, barcode scanner, USB Bluetooth adapter or USB WLAN stick				
Digital I/O interface providing		8 inputs and outputs				□
<b>Operating data</b>						
Voltage		100 - 240 VAC, 50/60 Hz, PFC				
Power consumption		< 10 W in standby / 100 W are typical				
Temperature / humidity	Operation	+5 - 40°C / 10 - 85 %, not condensing				
	Stock	0 - 60°C / 20 - 85 %, not condensing				
	Transport	-25 - 60°C / 20 - 85 %, not condensing				
Approvals		CE				
in preparation for CW 20 from CW 33		FCC Class A, ICES-3 cULus, CB				
		others may be provided on request				
<b>Operation panel</b>						
Colored LCD touch display		Screen diagonal	"	4.3		
		Resolution Width x Height px	272 x 480			
<b>Controls</b>						
Printer	Ribbon pre-warning ending winding Labels ending	Peripheral error Print head voltage temperature open Pinch roller open				
<b>Fonts</b>						
Provided internally	5 bitmap fonts: 12 x 12 dots 16 x 16 dots 16 x 32 dots OCR-A OCR-B	7 vector fonts: AR Heiti Medium GB-Mono CG Triumvirate Condensed Bold Garuda HanWangHeiLight Monospace 821 Swiss 721 Swiss 721 Bold				
To store	TrueType fonts					

Fonts			
Character sets	Windows-1250 to -1257 DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869 EBCDIC 500 ISO 8859-1 to -10 and -13 to -16 WinOEM 720 UTF-8 MacRoman DEC MCS KOI8-R  Western European Eastern European Chinese, simplified Chinese, traditional Thai  Cyrillic Greek Latin Hebrew Arabic		
Bitmap fonts	Widths and heights 1 - 3 mm Zoom factors 2 to 10 Orientations 0°, 90°, 180°, 270°		
Vector / TrueType fonts	Widths and heights 0.9 - 128 mm Continuous zoom Orientation 360° in steps of 1°		
Font styles	bold, italic, underlined, outline, inverse - depending from the font type		
Character spacing	variable or monospace		
<b>Graphics</b>			
Elements	lines, arrows, rectangles, circles, ellipses - filled and gradient		
Formats	PCX, IMG, BMP, TIF, MAC, GIF, PNG		
<b>Codes</b>			
1D barcodes (linear)	Code 39, Code 93 Code 39 Full ASCII Code 128 A, B, C EAN 8, 13 EAN/UCC 128/GS1-128 EAN/UPC Appendix 2 EAN/UPC Appendix 5 FIM HIBC	Interleaved 2/5 Ident and routing code of Deutsche Post Codabar JAN 8, 13 MSI Plessey Postnet RSS 14 UPC A, E, E0	
2D and stacked codes	DataMatrix DataMatrix Rect. Extension QR code Micro QR code GS1 QR code GS1 DataMatrix PDF 417	Micro PDF 417 UPS MaxiCode GS1 DataBar Aztec Codablock F Dotcode RSS 14 truncated, limited, stacked / omnidirectional	
All codes may vary in height, modular width and ratio. Orientations 0°, 90°, 180°, 270° Check digits, plain text printouts and start/stop codes are options depending from the type of code.			
<b>Software</b>			
Label software	cablabel S3 Lite cablabel S3 Pro	cablabel S3 Viewer cablabel S3 Print	■ □
Stand-alone operation			■
Programming	JScript printer language	abc Basic Compiler	■
Integration	Database Connector		■
Administration	Printer control Configuration on the Intranet and Internet		■ ■

cab makes use of free and Open Source software in its products. See information provided on [www.cab.de/opensource](http://www.cab.de/opensource)



For further information see [www.cab.de/en/squix](http://www.cab.de/en/squix)

# Technical data of UHF RFID modules

UHF RFID module on SQUIX 4	Dual UHF RFID module			High Sensitivity UHF RFID module
	Standard UHF RFID module	On-metal UHF RFID modul		
<b>RFID</b>				
Standard	UHF EPC Class 1 Gen 2			
Interface specification	ISO/IEC 18000-63			
Frequency scope	ETSI & FCC	ETSI & FCC	ETSI	FCC*
Input interface	JScript			
Features	Tag calibration, invalid labels be identified, proof printing, memory banks be locked			
<b>Tags</b>				
RFID tags	Standard	On-metal	High Sensitivity	
Material guidance	centered			
RFID print speed up to mm/s	100			
<b>Materials</b>				
Printable	see SQUIX 4M			
<b>Approved RFID labels / tags</b>				
identitytag	Wet Inlay 53 x 53 mm			
	Antenna	Smartrac FROG 3D		
	Tag IC	Impinj Monza 4D		
identitytag	SmartLabel 100 x 150 mm			
	Antenna	Smartrac DogBone		
	Tag IC	Impinj Monza R6		
identitytag			Smart Label On-metal 54 x 25 mm	
			NXP UCODE 7XM	
Confidex	Automotive Carrier Pro M4QT 92 x 24 mm (3000446)			
	Tag IC	Impinj Monza 4QT/4G		
Confidex	Casey MR6-P 92 x 24 mm (3002400)			
	Tag IC	Impinj Monza R6-P		
Confidex	Automotive Kanban 80 x 208 mm (3001985)			
	Tag IC	Impinj Monza 4E		
Avery Dennison	BJ 269 AD663U7XM WET WHITE 93 x 22 mm			BU117 AD151 G2iM WET WHITE 25 x 18 mm
	Antenna	AD-663u7xm		
	Tag IC	NXP UCODE 7xm		
Avery Dennison	BR800 AD665U8 WET WHITE 93 x 22 mm			
	Antenna	AD-665u8		
	Tag IC	NXP UCODE 8		
Omni-ID	IQ400 P			
	Antenna	Alien ALN-9610		
	Tag IC	Alien Higgs 3		
Omni-ID			IQ150 EU 54 x 12 mm	
			Impinj Monza R6	
Omni-ID			IQ150 US 54 x 12 mm	
			Impinj Monza R6-P	
Omni-ID			IQ600 EU 94 x 24 mm	
			Impinj Monza R6	

\* on request

# RFID labels

SQUIX UHF RFID label printers have been tested and approved for a consistently growing range of RFID labels. Find examples below. cab will provide as well information about further RFID labels.

If any required label cannot be found here, we will gladly review proposals or find suitable solutions, along with you, our label development department and qualified partners.



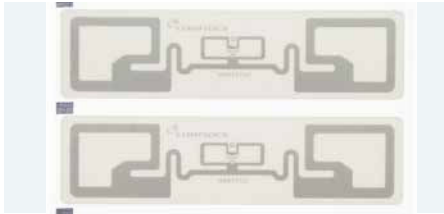
**identitytag**  
Wet Inlay 53 x 53 mm  
Smartrac FROG 3D



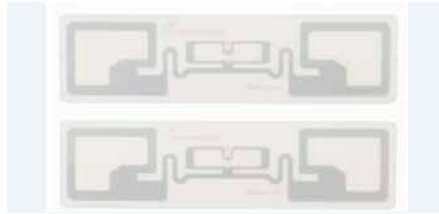
**identitytag**  
SmartLabel 100 x 150 mm  
Smartrac DogBone



**identitytag**  
Smart Label On-metal 54 x 25 mm



**Confidex**  
Automotive Carrier Pro  
M4QT 92 x 24 mm (3000446)



**Confidex**  
Casey MR6-P 92 x 24 mm (3002400)



**Confidex**  
Automotive Kanban 80 x 208 mm  
(3001985)



**Avery Dennison**  
BJ 269 AD663U7XM  
WET WHITE 93 x 22 mm AD-663u7xm



**Avery Dennison**  
BR800 AD665U8  
WET WHITE 93 x 22 mm AD-665u8



**Avery Dennison**  
BU117 AD151 62IM  
WET WHITE 25 x 18 mm AD-151iM



**Omni-ID**  
IQ400 P  
Alien ALN-9610



**Omni-ID**  
IQ150 EU 54 x 12 mm



**Omni-ID**  
IQ150 US 54 x 12 mm



**Omni-ID**  
IQ600 EU 94 x 24 mm

# RFID-related functions

## RFID UHF antennas

**Optimized antennas are provided for any application:**

1. **Standard** antenna to cover a wide range of common RFID tags
2. **On-Metal** antenna for on-metal tags
3. **High Sensitivity** antenna for tags requiring special signal demands

## RFID features

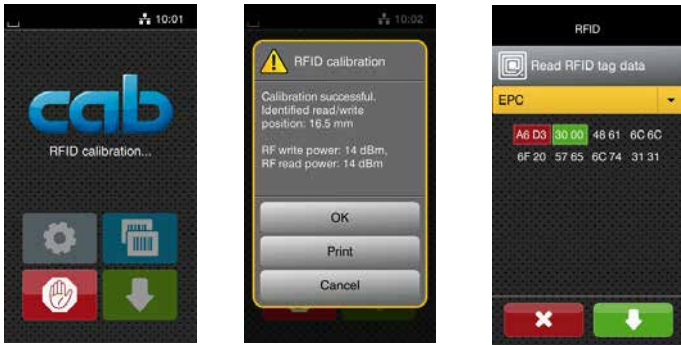
### Tag calibration

Read/write positions and performances, at which the RFID printer can write and read a tag best possible, can be determined for many common RFID tags.

Characteristic curves for calibration may be printed as well as label profiles.

### On-the-fly reading of tag contents

Contents such as TID, EPC, User Memory can be read **on the fly** on the RFID printer and displayed by the GUI.



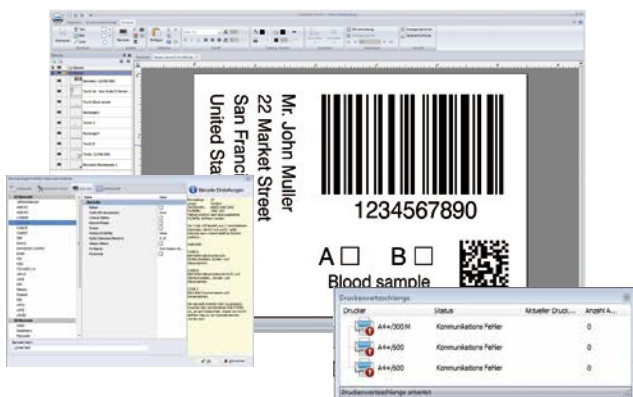
### Further features are

statistics, number of allowed write/read errors be specified, invalid labels be identified (void label)

# cablabel S3 software

## Design, print, administrate - RFID edition in preparation

cablabel S3 opens up the full potential of cab devices. Creating a label is the first step. cablabel S3 adapts to requirements easily using a modular design. Plug-ins like the JScript Viewer support native JScript programming, as well as other features. The designer user interface and the JScript code synchronize in real time. The Database Connector and other special features can be integrated, so are barcode verifiers.



# Printer control

## Programming

### JScript commands

- assign RFID resources (e.g. tag type, number of retries, write / read positions ...)
- write and read TID, EPC and User Memory
- type password
- generate GS1/JAIF URN Notation EPC
- lock memory bank



### abc Basic Compiler

An integral part of the firmware, it adds to JScript in terms of programming a printer before data are edited for processing. For example, external printer languages can be replaced without intervening in the print job in process. Data may be transferred also from other systems, such as scales, barcode scanners or PLC.

# Printer administration

## Configuration on the Intranet and Internet

cab printers integrate a HTTP and FTP server. A printer can be controlled and configured, firmware updated and memory cards managed using a standard web browser or FTP client. Administrators and operators are notified of states, warnings and errors via email or datagrams, based on a SNMP/SMTTP client. Time and date are synchronized by a time server.



## Database Connector

Printers connected to a network are enabled to access data directly from a central ODBC / OLEDB database and transfer it to a label. While labels are printed, data can be rewritten to the database.

# Stand-alone printing

A printer can select and print labels even when the system is disconnected from a host.



Labels are designed using software such as cablabel S3 or a text editor on a PC. Label formats, texts, graphics and data taken from a database are transferred to a memory card, a USB memory stick or the internal IFFS memory.

Only variable data are sent to the printer using a keyboard, a barcode scanner, scale or another host system and/or are recalled from a host by the Database Connector and printed.



# Delivery program

## Label printers

Pos.	Part no.	Designation
1.7		<b>5977018.xxx</b> Label printer SQUIX 4.3/200M
		<b>5977019.xxx</b> Label printer SQUIX 4.3/300M
		<b>5977010.xxx</b> Label printer SQUIX 4/300M
		<b>5977011.xxx</b> Label printer SQUIX 4/600M
1.8		<b>5977022.xxx</b> Label printer SQUIX 4.3/200MP
		<b>5977023.xxx</b> Label printer SQUIX 4.3/300MP
		<b>5977007.xxx</b> Label printer SQUIX 4/300MP
		<b>5977008.xxx</b> Label printer SQUIX 4/600MP

xxx = with option UHF-RFID


## Options UHF-RFID

Pos.	Part no.	Designation
6.1	<b>xxxxxxx.406</b>	Standard UHF RFID module
	<b>xxxxxxx.407</b>	On-metal UHF RFID module
	<b>xxxxxxx.408</b>	High Sensitivity UHF RFID module
	<b>xxxxxxx.409</b>	Dual UHF RFID module (Standard and On-metal)

xxxxxxx = Label printer from Pos. 1.7/1.8

## Wear parts

### Print heads for modules Standard/HS/Dual

Pos.	Part no.	Designation
	<b>5977382.001</b>	Print head 4.3/200
	<b>5977383.001</b>	Print head 4.3/300
	<b>5977444.001</b>	Print head 4/300
	<b>5977380.001</b>	Print head 4/600

### Print head for module On-Metal incl. RFID antenna

Pos.	Part no.	Designation
	<b>5987177.001</b>	Print head 4.3/200
	<b>5987178.001</b>	Print head 4.3/300
	<b>5987179.001</b>	Print head 4/300
	<b>5987180.001</b>	Print head 4/600



For further information see  
[www.cab.de/en/squix](http://www.cab.de/en/squix)

### Scope of delivery

Label printer  
Power cable Type E+F, 1.8 m  
Connecting USB cable, 1.8 m  
Instructions DE/EN

### Available online

Instructions in 30 languages  
Configuration manuals DE/EN/FR  
Service manuals DE/EN  
Spare parts lists DE/EN  
Programming manual EN  
Windows printer drivers WHQL-certified for  
Windows Vista Server 2008  
Windows 7 Server 2008 R2  
Windows 8 Server 2012  
Windows 8.1 Server 2012 R2  
Windows 10 Server 2016  
Server 2019

Apple Mac OS X printer drivers DE/EN/FR  
Linux printer drivers DE/EN/FR  
cablabel S3 Lite software  
cablabel S3 Viewer  
Database Connector

<https://setup.cab.de/en>

## Label software

Pos.	Part no.	Designation
11.7	Bundle	cablabel S3 Lite (download on cab.de/en)
	<b>5588001</b>	cablabel S3 Pro 1 WS
	<b>5588100</b>	cablabel S3 Pro 5 WS
	<b>5588101</b>	cablabel S3 Pro 10 WS
	<b>5588150</b>	cablabel S3 Pro 1 additional licence
	<b>5588151</b>	cablabel S3 Pro 4 additional licences
	<b>5588152</b>	cablabel S3 Pro 9 additional licences
	<b>5588002</b>	cablabel S3 Print 1 WS
	<b>5588105</b>	cablabel S3 Print 5 WS
	<b>5588106</b>	cablabel S3 Print 10 WS
	<b>5588155</b>	cablabel S3 Print 1 additional licence
<b>5588156</b>	cablabel S3 Print 4 additional licences	
<b>5588157</b>	cablabel S3 Print 9 additional licences	
	in preparation	cablabel S3 Print Server
11.10	<b>9009950</b>	Programming manual EN, printed copy

## User languages

Language	Menu	Windows drivers	cablabel S3	Instructions
Arabic	X	-	-	-
Bulgarian	X	-	X	X
Chinese, traditional	X	X	X	X
Chinese, simplified	X	X	X	X
Danish	X	X	-	X
German	X	X	X	X
English	X	X	X	X
Estonian	X	-	-	X
Finnish	X	X	-	X
French	X	X	X	X
Greek	X	-	-	X
Italian	X	X	X	X
Korean	-	X	X	X
Latvian	X	-	-	X
Lithuanian	X	-	-	X
Macedonian	X	-	-	-
Dutch	X	X	-	X
Norwegian	X	X	-	X
Persian	X	-	-	-
Polish	X	X	X	X
Portuguese	X	X	-	X
Romanian	X	-	-	X
Russian	X	X	X	X
Swedish	X	X	-	X
Serbian	X	-	-	-
Slovak	X	X	-	X
Slovenian	X	X	-	X
Spanish	X	X	X	X
Thai	x	X	-	X
Czech	X	X	X	X
Turkish	X	X	-	X
Hungarian	X	X	-	X

Scopes of delivery, design and technical specifications correspond to the date of the printing. Subject to change. The data provided in the catalog do not represent any warranty or guarantee.

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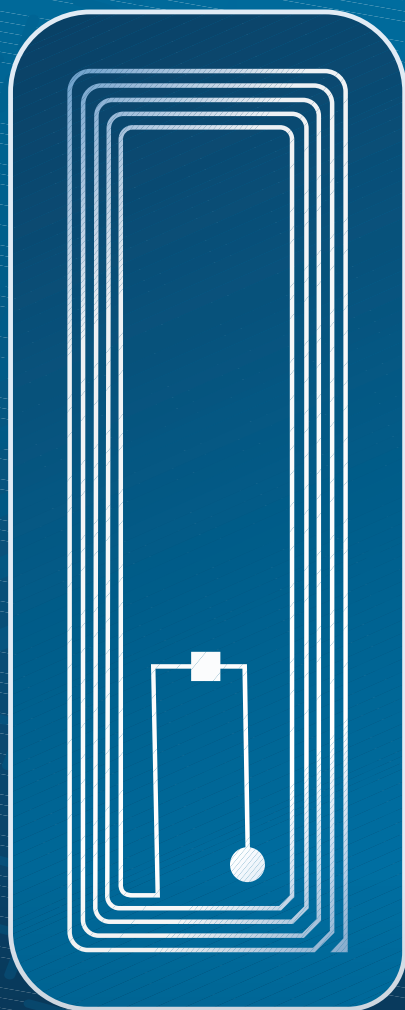
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