

RFID SIP Firmware Update Instructions for miniPad / rPad

This document contains information about how to upgrade the "RFID SIP Firmware" on miniPad and rPad devices. Please follow carefully the instructions below in order to upgrade your device.

miniPad and rPad devices have 02 distinct firmwares with specific instructions for updating each one of them. The first one is the "RFID-SIP" firmware and the other one is the "Controller Firmware". This guide contains specific instructions to update the "RFID SIP Firmware" only.

 Open the device information file to identify the current firmware version. Connect your device to a Windows machine and open the "Identix" drive that is automatically mounted when you connect the device to the computer. The file that contains the device information is named "IdevInfo.txt"

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2) Identify the RFID SIP version by opening the "IdevInfo.txt" file on Notepad.



3) Make sure your device is configured to work in "Transparent Mode". Set the option "Opmode=T" on the Identix-Pad.cfg file located inside the "Identix" drive.

Identix-Pad.cfg - Notepad	- 🗆 X
<u>F</u> ile <u>E</u> dit F <u>o</u> rmat <u>V</u> iew <u>H</u> elp	
Opmode=1	; defines the device operating mode: T for transparent mode, H for keyboard emulation (HID),
Region=0	; set 0 for FCC (USA), 13 for Anatel (Brasil) or consult Identix for other regions
TXPower=23	<pre>; transmit power in dBm (maximum 23)</pre>
Inventory=D	; Inventory search mode: D for Dual Target, S for Single Target and SS for Single Target with
Session=1	; Gen2 Tag inventory session: 0, 1, 2 or 3
TagPopulationEstimate=4	; an estimate of the tag population in view of the RF field of the antenna
InventoryCycle=0,0	; set the inventory cycle duration and interval (on-off) in milliseconds. Set to 0,0 (default
RSSIfilterThreshold=0	; only tags with RSSI data above this threshold will be reported (typical value -6500). Set 1
DecodeSGTIN96=False	; decodes encoded SGTIN96 EPC data into SGTIN13 (GTIN13 plus EPC serial number)
AddSerialToDecodedGTIN13=True	; includes the EPC serial number in GTIN13 decoded string
GTIN13SNseparator=0x2F	; ASCII character to be used as separator between decoded GTIN13 and serial number
GS1CompanyPrefixLength=6	; number of digits used for the GS1 Company Prefix Length
DecodeEPCMemory=False	; output EPC data into EPC Tag URI (urn:epc:tag:) format
HidReportFormat=0	; set 0 to report EPC data only or 1 to report EPC+TID
HidReportSeparator=0x20	; ASCII character to be used as separator between EPC and TID in HID reports
HidReportCRcharacter=0xD	; ASCII character to be used as Carriage Return in HID reports
HidReportLFcharacter=0xA	; ASCII character to be used as Line Feed in HID reports
IncludeRSSI=True	; set True to include RSSI data at the end of HID report data
RSSIReportSeparator=0x23	; leading character to be used before RSSI information
PrSensor=0	; set to 0 to disable presence sensor or between 1 to 10 to define the sensor sensitivity
HidTrigger=True	; enable Start Inventory by LED Presence Sensor
BeeperVolume=10	; set beeper volume during inventory from 0 (no beep) to 10 (maximum volume)

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4) Verify the COM port your computer assigns to the miniPad – rPad device by opening the "Computer Management" Windows applet.

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> 🛃 Event Viewer	> 🚯 Bluetooth	More Actions
> 👸 Shared Folders	> 💻 Computer	
> 🜆 Local Users and Groups	> 👝 Disk drives	
> 🔊 Performance	> 💌 Display adapters	
📇 Device Manager	> 🕼 Human Interface Devices	
🗸 🔄 Storage	> 😋 IDE ATA/ATAPI controllers	
📄 Disk Management	> 🔚 Imaging devices	
Services and Applications	> 📖 Keyboards	
	> Memory technology devices	
	> 🖞 Mice and other pointing devices	
	> 🛄 Monitors	
	> 📮 Network adapters	
	> 🖬 Portable Devices	
	✓ IP Ports (COM & LPT)	
	The second device (COM7)	
	> 🚍 Print queues	
	> 🔲 Processors	
	> 🦻 Security devices	
	> 🖾 Sensors	
	> 🗓 Software devices	
	> 🐗 Sound, video and game controllers	
	> 夺 Storage controllers	
	> 💻 System devices	
	> 🏺 Universal Serial Bus controllers	
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5) Open the "RS500 Development Tool" or the "Indy Demo Tool" provided by Identix. Click "Scan" to automatically detect the miniPad – rPad device.

RS500 Development Tool v1.1.4.240					-	×
	Connect Disconnect Reset COM7	∀ Scan				
Welcome		Event L	og Device Log			
Select the COM port that the IRI device button to connect to the IRI device.	is connected to from the dropdown menu, then press th	ne Connect Sav	ve Clear	Log Level: 2:info	\sim	
		Scannin Found a	ıg for devices an RS500 [Serial Numl	ber:210] on port COM7		<
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6) After a successful connection the following screen is deployed.

7) Now go to the "Image Loader" tab and select the RFID SIP firmware file provided by Identix. Hit the "Open" button to select the firmware file.

RS500 Development Tool v1.1.4.240	- 0	×
Help Connect Disconnect Reset COM7 V Scan Inventory Write EPC Access Tx Control Set/Get Image Loader	Event Log Device Log	
Browne to an RS500 loader image and press Load Image to flash the image to the device. Loader images can be an RS500 application or a stored settings image. Load Image	Save Clear Log Level: 2:info Scanning for devices Found an RSS00 [Serial Number:210] on port COM7 Port COM7 opened Connected to RSS00 [Serial Number:210] on port COM7	^
Stored Settings Click the button below to save the device settings to an XML file. If the checkbox is checked then the binary image loader file will also be saved. Save Stored Settings to XML Save Settings Image BIN Click the button below to convert a settings XML file to a loader image that is compatible with the attached IRI device. Note that the load image controls above can be used to load the image on to the device. Please see the RSSOD documentation for a description of the XML format. Make Settings Image (BIN) from XML Factory Reset Create Example Stored Settings XML File		
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		indy-release-itk-01.04.02.240	05/09/2015 15:50	File folder			
🧏 Identhis 🛛 🛪		USB Drivers	10/09/2015 15:29	File folder			
👯 Identix 🛛 🛪	۲ L	RS500_Application_01.04.02.240.bin	12/06/2015 09:35	BIN File	120 KB		
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💻 This PC 🛛 🤘	e						
Dropbox							
ConeDrive							
Backup Picture	es v						
	File <u>n</u> ame:	RS500_Application_01.04.02.240.bin			~ Ima	age files (*.bin)	

In this example the filename is "RS500_Application_01.04.02.240.bin"

8) After selecting the desired RFID SIP Firmware file, press the" Load Image" button and the firmware update process will begin. DO NOT INTERRUPT this process, otherwise your device may become permanently corrupted. A progress bar will be displayed and a "Download Completed Successfully" confirmation message will appear at the end of the update process.

😵 RS500 Development Tool v1.1.4.240					×
Help					
Connect Disconnect Reset COM7 v Scan	Event Log [Device Log			
	Save	Clear	Log Level: 2:info	~	
Browse to an RS500 loader image and press Load Image to flash the image to the device. Loader images can be an RS500 application or a stored settings image.	Juve	Cicui	2		
C:\Users\mauricio\Dropbox\Identix\Identix Products\Identix F					
Load Image	IRI Device Re Image load in				
Stored Settings					
Click the button below to save the device settings to an XML file. If the checkbox is checked then the binary image loader file will also be saved.					
Save Stored Settings to XML Save Settings Image BIN					
Click the button below to convert a settings XML file to a loader image that is compatible with the attached IRI device. Note that the load image controls above can be used to load the image on to the device. Please see the RS500 documentation for a description of the XML format.					
Make Settings Image (BIN) from XML					
Factory Reset					
Create Example Stored Settings XML File					
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9) Now verify is the firmware was successfully updated to the desired version. Go to the "Set/Get" tab and hit the "Retrieve Device Info" button. The current firmware of the RFID SIP will be displayed on the right panel.

10) You can check also by reopening the "Idenvinfo.txt" file present on the Identix drive

IdevInfo.txt - Notepad	_	×
Eile Edit Format View Help		~
miniPad - rPad product Information		~
Device serial number: 210		
RFID-SIP firmware version: 1.4.2.240		
Controller firmware version: 1.39 External SIP Temperature: 29		
Internal SIP Temperature: 35		
SIP Unique Id: 10150130210 (00000002.5cfeb222)		
SIP Microprocessor Id: 003a003d-42365716-33343530		
Region Id: 0		
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EMERGENCY RECOVERY PROCEDURE FOR THE RFID SIP FIRMWARE

In the case the RFID SIP firmware update process fails and you're no longer able to connect to the device, you may use this procedure to reset the RFID SIP to the latest working firmware version.

 Open the Identix-Pad.cfg file located inside the "Identix" drive. Insert on the first line of the configuration file the following statement/command: "RecoverIRIdevice=True" (without quotes). Disconnect and reconnect the device from the computer and verify if you're able to access the miniPad - rPad again.

Identix-Pad.cfg - Notepad	- 🗆 X
<u>F</u> ile <u>E</u> dit F <u>o</u> rmat <u>V</u> iew <u>H</u> elp	
RecoverIRIdevice=True	
Opmode=R Region=0	; defines the device operating mode: T for transparent mode, H for keyboard emulation (HID), ; set 0 for FCC (USA), 13 for Anatel (Brasil) or consult Identix for other regions
TXPower=23	; transmit power in dBm (maximum 23)
Inventory=D	; Inventory search mode: D for Dual Target, S for Single Target and SS for Single Target with
Session=1	; Gen2 Tag inventory session: 0, 1, 2 or 3
TagPopulationEstimate=4	; an estimate of the tag population in view of the RF field of the antenna
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HidReportFormat=0	; set 0 to report EPC data only or 1 to report EPC+TID
HidReportSeparator=0x20	; ASCII character to be used as separator between EPC and TID in HID reports
HidReportCRcharacter=0xD	; ASCII character to be used as Carriage Return in HID reports
HidReportLFcharacter=0xA	; ASCII character to be used as Line Feed in HID reports
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IncludeRSSI=False	; set True to include RSSI data at the end of HID report data
RSSIReportSeparator=0x23	; leading character to be used before RSSI information
PrSensor=0	
	; set to 0 to disable presence sensor or between 1 to 10 to define the sensor sensitivity
HidTrigger=True	; enable Start Inventory by LED Presence Sensor
BeeperVolume=10	; set beeper volume during inventory from 0 (no beep) to 10 (maximum volume)



Contacts

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FCC Statement: §15.105 Digital Devices Statement. Class B Digital Devices.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) reorient or relocate the receiving antenna, (2) increase the separation between the equipment and receiver, (3) connect the equipment into an outlet on a circuit different from that to which the receiver is connected or (4) consult the dealer or an experienced radio/TV technician for help.



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