

Controller Firmware Update Instructions for miniPad / rPad

This document contains information about how to upgrade the Controller 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 "Controller 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"





2) Identify the Controller Firmware version by opening the "IdevInfo.txt" file on Notepad.

🗐 IdevInfo.txt - Notepad	_	×
<u>File Edit Format View H</u> elp		
<pre>ini Edit Format View Help miniPad - rPad product Information Device serial number: 467 RFID-SIP firmware version: 1.14.240 Controller firmware version: 1.39 External SIP Temperature: 24 Internal SIP Temperature: 31 SIP Unique Id: 10150130467 (00000000.5cfeb323) SIP Microprocessor Id: 00010045-42365716-33343530 Region Id: 0</pre>		~
<		> .∄

3) After having the new firmware file on your hands, put your device in DFU (Device Firmware Update) mode. To do that, open the Identix-Pad.cfg file on Notepad and include the statement "DFUmode=True" on the first line of the file. The statement is case sensitive so be careful editing the configuration file.

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	
DFUmode=True Opmode=T 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
<pre>TXPower=10 Inventory=D Session=1 TagPopulationEstimate=4 InventoryCycle=0,0 RSSIfilterThreshold=0</pre>	; transmit power in dBm (maximum 23) ; Inventory search mode: D for Dual Target, S for Single Target and SS for Single Target with ; Gen2 Tag inventory session: 0, 1, 2 or 3 ; an estimate of the tag population in view of the RF field of the antenna ; set the inventory cycle duration and interval (on-off) in milliseconds. Set to 0,0 (defaul1 ; only tags with RSSI data above this threshold will be reported (typical value -6500). Set 1
DecodeSGTIN96=False AddSerialToDecodedGTIN13=True GTIN13SNseparator=0x2F GS1CompanyPrefixLength=6 DecodeEPCMemory=False	; decodes encoded SGTIN96 EPC data into SGTIN13 (GTIN13 plus EPC serial number) ; includes the EPC serial number in GTIN13 decoded string ; ASCII character to be used as separator between decoded GTIN13 and serial number ; number of digits used for the GS1 Company Prefix Length ; output EPC data into EPC Tag URI (urn:epc:tag:) format
HidReportFormat=0 TIDlength=32 HidReportSeparator=0x20 HidReportCRcharacter=0xD HidReportLFcharacter=0xA	; set 0 to report EPC data only or 1 to report EPC+TID ; defines the length of TID field (bits) to chips that are not Impinj Monza. Set to 0 for au ; ASCII character to be used as separator between EPC and TID in HID reports ; ASCII character to be used as Carriage Return in HID reports ; ASCII character to be used as Line Feed in HID reports
IncludeRSSI=False RSSIReportSeparator=0x23	; set True to include RSSI data at the end of HID report data ; leading character to be used before RSSI information
PrSensor=0 HidTrigger=True BeeperVolume=10	; set to 0 to disable presence sensor or between 1 to 10 to define the sensor sensitivity ; enable Start Inventory by LED Presence Sensor ; set beeper volume during inventory from 0 (no beep) to 10 (maximum volume)

<



- 4) After saving the configuration file on Notepad, the device will reboot and enter in "DFU mode". The "Identix" drive will dismount and your will no longer have access to the configuration file.
- 5) Locate the "Python_Firmware Upgrade". Identix provides this utility on a zipped file. Create a folder and unzip all content of the zip package inside it. Execute the file "Pyton_Firmware_UpgradeGUI.exe" by double clicking over it.

🔜 I 🗹 📑 🖛 🖛 I	Application Tools	C:\TI\Python_Fi	rmware_Upgrad	er	– 🗆 X
File Home Share	View Manage				^ ()
Pin to Quick Copy Paste access	Cut Ave to The Copy path Copy to The Copy	✓ Delete ✓	New folder	Properties	Select all Select none
Clipboard	Org	janize	New	Open	Select
\leftarrow \rightarrow \checkmark \uparrow \square \Rightarrow Th	his PC → Windows (C:) → TI →	Python_Firmware	_Upgrader	✓ Ö Sear	rch Python_Firmw 🔎
📌 Quick access	Name		Date modifi	ed Type	Size
🔮 Documents 🛛 🖈	e css		24/02/2015	12:40 File folder	
🎎 mauricio 🛛 🖈	e doc		24/02/2015	2:40 File folder	
📃 Desktop 🛛 🖈	images		24/02/2015	2:40 File folder	
🔐 Identix 🖌	License_Manifest		24/02/2015	12:40 File folder	
📕 Impinj 🚽	python-msp430-tools		24/02/2015	12:40 File folder	
RFID #	5529_CDC_echo.txt		07/11/2014	14:59 Text Documer	nt 27 KB
OfficeWork	5529 LED Blink tyt		07/11/2014	14:59 Text Documer	nt 1 KB
Work-MS	Python Firmware Upgra	derGUI.exe	07/11/2014	15:01 Application	5.750 KB
This PC	Python_Firmware_Upgra	derGUI.spec	07/11/2014	15:01 SPEC File	1 KB
- 11151 C /	e release_Notes_Example_F	ython_Firmwar	07/11/2014	14:59 HTML File	19 KB
💱 Dropbox	TargetGUI.py		07/11/2014	4:59 PY File	14 KB
a OneDrive			07/11/2014	14:59 Icon	98 KB
This DC	e TIResourceExplorer.html		07/11/2014	14:59 HTML File	1 KB
💣 Network					
14 items 1 item selected	1 5,61 MB				

Once the program is executed, a scree like the one below must be displayed. The program will automatically recognize the miniPad / rPad device and a "ready...." Message will be displayed.

🚸 MSP430 USB Firmware Upgrade Example 2.0		_	×
<u>File</u> <u>A</u> bout			
]		_
ready			
J			~



6) Select the new firmware file by the the menu "File / Open User Firmware". In the example blow the firmware file is "miniPad-rPad1.39.txt"

👋 Choose a file						×
← → • ↑	« PAI	Ds > Software > Firmware PCB V2	~ Ū	Search Firmwa	are PCB V2	P
Organize 🔻 🛛 N	lew folde	r			•== •	?
🎎 mauricio	* ^	Name	Da	te modified	Туре	
📃 Desktop	*	Python_Firmware_Upgrader	18	/11/2015 14:19	File folder	
🕵 Identix	A	😹 miniPad-rPadv1.39.txt	08,	/09/2015 17:22	Text Docume	ent
🌄 Impinj	*					
🛃 RFID	*					
🛃 OfficeWork	*					
🌏 Work-MS	*					
💻 This PC	*					
💱 Dropbox						
a OneDrive						
💻 This PC						
	×	<				>
	File <u>n</u> a	me: miniPad-rPadv1.39.txt	~	text files (*.txt)	\sim
				<u>O</u> pen	Cancel	:

7) When selecting the file, the firmware update process will start automatically. Once finished the "Programming: OK" message will appear. DO NOT INTERRUPT THIS PROCESS, OTHEWISE YOUR DEVICE MAY BECOME PERMANENTLY DEMAGED.

🚸 MSP430 USB Firmware Upgrade Example 2.0 —	×
Eile About	
Opening HID device HID device (vID=0x2047, pID=0x0200, v=0x0105); Unknown manufacturer; @input.inf,%hid_device_vendor_defined_ran ;HID-compliant vendor-defined device, Fath: \\?\hid#vid_2047&pid_0200#7&112000ad&0&0000#{4dle55b2-f16f-11cf-88cb-001111000030} Mass erase Download full BSL Programming Programming Programming OK Waiting for BSL closing HID device Closed! Opening HID device HID device (vID=0x2047, pID=0x0200, v=0x0109); Unknown manufacturer; @input.inf,%hid_device_vendor_defined_ran ;HID-compliant vendor-defined device, Fath: \\?\hid#vid_2047&pid_0200#7&112000ad&0&0000#{4dle55b2-f16f-11cf-88cb-001111000030}	get ^
Programming Programming: OK	



8) Disconnect and reconnect the miniPad – rPad device to the computer. Open the device information file to verify if everything went ok.

🗕 🛃 📙 🖛	D	ive Tools D:\					_	o x
File Home Shi	are View M	lanage						^ ()
Pin to Quick Copy Past	Cut Copy path Paste shortcu	t Move to 👻	X Delete ▼ ■ Rename	New folder	Properties	pen 👻 lit istory	Select a	ill ione election
Clipboa	ard	Orga	anize	New	Open		Sele	ct
\leftarrow \rightarrow \checkmark \uparrow \blacksquare \rightarrow	IDENTIX (D:)				v ⊽	Searc	h IDENTIX ((D:) 🔎
📌 Quick access	Name	^		Date modifi	ed Type		Size	
Documents	🖈 🛛 🗐 Identix-	Pad.cfg		30/05/2015	12:10 CFG Fil	e		3 KB
🚨 mauricio	🖈 📄 IdevInfo	o.txt		11/09/1981	03:30 Text Do	cument	t	1 KB
📃 Desktop	*							
🕵 Identix	*							
ᡖ Impinj	*							
RFID	*							
🛃 OfficeWork	*							
🛃 Work-MS	*							
💻 This PC	*							
💱 Dropbox								
🐔 OneDrive								
This PC								
IDENTIX (D:)								
💣 Network								
2 items	1							

IdevInfo.bt - Notepad	-	×
Eile Edit Format View Help		
miniPad - rPad product Information		^
Device serial number: 467		
RFID-SIP firmware version: 1.1.4.240		
Controller firmware version: 1.39		
Internal SIP Temperature: 24		
SIP Unique Id: 10150130467 (0000002.5cfeb323)		
SIP Microprocessor Id: 00310045-42365716-33343530		
Region Id: 0		
		\sim
<		>



Contacts

Sales sales@idntx.com

Support https://idntx.zendesk.com

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.



Notices: Copyright © 2015, Identix RFID, Inc. All rights reserved.

Identix gives no representation or warranty, express or implied, for accuracy or reliability of information in this document. Identix reserves the right to change its products and services and this information at any time without notice. EXCEPT AS PROVIDED IN IDENTIX'S TERMS AND CONDITIONS OF SALE (OR AS OTHERWISE AGREED IN A VALID WRITTEN INDIVIDUAL AGREEMENT WITH IDENTIX), IDENTIX ASSUMES NO LIABILITY WHATSOEVER AND IDENTIX DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATED TO SALE AND/OR USE OF IDENTIX PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY PATENT, COPYRIGHT, MASK WORK RIGHT, OR OTHER INTELLECTUAL PROPERTY RIGHT IS GRANTED BY THIS DOCUMENT. Identix assumes no liability for applications assistance or customer product design. Customers should provide adequate design and operating safeguards to minimize risks. Identix products are not designed, warranted or authorized for use in any product or application where a malfunction may reasonably be expected to cause personal injury or death or property or environmental damage ("hazardous uses") or for use in automotive environments. Customers must indemnify Identix against any damages arising out of the use of Identix products in any hazardous or automotive uses.

Identix RFID is a trademark or registered trademark of Identix RFID Inc. All other product or service names are trademarks of their respective companies.