

To Upgrade/Restore the SMC Transponder A91051, Application Notes

Overview

Introduction

SMC Transponder A91051 is able to upgrade/restore its firmware and parameter using PROG08SZ Interactive Programmer.

Purpose

The purpose of this document is to instruct HFC devices users how to upgrade /restore the firmware and parameter on the SMC Transponder A91051.

Audience

This document is intended for system engineers or managers responsible for operating and/or maintaining these products.

Upgrade/Restore Procedure

Follow the instructions below to upgrade/restore firmware and parameter on your device.

To Download the Application

Click on the following link to download the PROG08SZ Interactive Programmer:

http://www.pemicro.com/products/product_viewDetails.cfm?product_id=147&CFI D=4358839&CFTOKEN=d997baa9f4afa47f-AB65803B-D08A-D45A-8782583B7B307F1F

Ignore the price and registration notice.

Preparations before Upgrade/Restore

- Make sure your PC has COM port and running Windows XP/2000
- Make sure you are using Cisco's DB9-to-MiniJack cable, part number 744618
- Make sure you have the correct device file, part number 744605
- Make sure NO other COM application is running (e.g. SetXpond)
- Make sure you have installed the latest PROG08SZ Interactive Programmer (V2.32 or above)

To Connect to Your Device

Follow the steps below to connect the program to your device.

Step 1. Open the PROG08SZ Interactive Programmer.

Result: The main dialog box displays as the following screen.

Attempting to contact target and pass security				
Class 1 - Motorola ICS Board with processor installed. Emulation	connection ok. (Power controlled via DTR)	✓ Advanced		
-Class 1, 2, 3, 4 - Settings				
Serial Port: 1	Befrech List			
Baud: 19200 Baud 💌				
Specified Baud:				
The port is closed.				
Target MCU Security bytes				
C Attempt ALL Known security codes in order	C Attempt FF-FF-FF-FF-FF-FF-FF {From s	ecurity.ini}		
Attempt FF-FF-FF-FF-FF-FF-FF (Blank Device)	C Attempt FF-FF-FF-FF-FF-FF-FF {From s	ecurity.ini}		
Attempt FF-FF-FF-FF-FF-FF-FF (From security.ini) {Recent}	C Attempt 00-00-00-00-00-00-00 (Blank	on older devices)		
C Attempt FF-FF-FF-FF-FF-FF-FF (From security.ini)	C User: 00-00-00-00-00-00-00	Load from S19		
C Attempt FF-FF-FF-FF-FF-FF-FF {From security.ini}	GNORE security failure and enter monitor	or mode.		
Status:				
0. Hardware loopback detected: 4. Device a	entered monitor mode:			
1. Device echoed some security bytes: 5. Reset w	as Power-On Reset:	Help		
Device echoed all security bytes:6. ROM is a	accesible (un-secured):			
Device signaled monitor mode with a break:	MON08 Diad	nostics (Disabled)		
Iverset is a straight of the straight of t				
Contact target with these settings		<u>H</u> alt		
		×		

Step 2. Select Class 3 in the Target Hardware Type drop-down box.

_		
-	Target Hardware Type	
	Class 3 - Direct serial to target w/MON08 serial port circuitry built in.	-
	Class 1 - Motorola ICS Board with processor installed. Emulation connection ok. (Power controlled via DTR)	
	Class 2 - Motorola ICS Board without processor. Connected to target via 16-pin ribbon Cable.	
	Class 3 - Direct serial to target w/MON08 serial port circuitry built in.	
	Class 4 - Direct serial to target w/MON08 serial port circuitry and additional auto-reset circuit built in.	
	Class 5 - P&E MON08 CYCLONE Interface connected to target via ribbon cable.	
	Class 6 - P&E POWER08 Interface to target w/MON08 circuitry built in.	
	Class 7 - P&E MON08 MULTILINK or USB MON08 MULTILINK connected to target via ribbon cable.	
	Class 8 - P&E CYCLONE PRO Interface connected to target via ribbon cable.	

Step 3. Select the COM port you are using in the Serial Port drop-down box.

Step 4. Select **Specified** in the **Baud** drop-down box to activate the Specified Baud text box.

Baud:	Specified 📃 💌
Specified Baud:	4800 Baud
opecinea bada.	9600 Baud
	14400 Baud
	19200 Baud
	28800 Baud
	7200 Baud
	8861 Baud
	Specified

Upgrade/Restore Procedure

Step 5. Input "4430" as the desired baud rate.

Specified Baud:	4430
	The port is closed.

Step 6. In the Target MCU Security Bytes Tab:

a. Select Attempt All Known Security Codes In Order if your device is not working.

Target MCU Security bytes	
Attempt ALL Known security codes in order	C Attempt FF-FF-FF-FF-FF-FF-FF {From security.ini}
C Attempt FF-FF-FF-FF-FF-FF (Blank Device)	C Attempt FF-FF-FF-FF-FF-FF-FF (From security.ini)
C Attempt FF-FF-FF-FF-FF-FF-FF {From security.ini} {Recent}	C Attempt 00-00-00-00-00-00-00 (Blank on older devices)
C Attempt FF-FF-FF-FF-FF-FF-FF {From security.ini}	C User: 00-00-00-00-00-00 Load from S19
C Attempt FF-FF-FF-FF-FF-FF {From security.ini}	GNORE security failure and enter monitor mode.

b. Select **Attempt 00-00-00-00-00-00 (Blank On Older Devices)** if your device works properly.

Target MLU Security bytes	
Attempt ALL Known security codes in order	Attempt FF-FF-FF-FF-FF-FF {From security.ini}
Attempt FF-FF-FF-FF-FF-FF (Blank Device)	C Attempt FF-FF-FF-FF-FF-FF-FF {From security.ini}
C Attempt FF-FF-FF-FF-FF-FF-FF (From security.ini) (Recent)	Attempt 00-00-00-00-00-00-00 (Blank on older devices)
C Attempt FF-FF-FF-FF-FF-FF-FF (From security.ini)	◯ User: 00-00-00-00-00-00-00 Load from S19
C Attempt FF-FF-FF-FF-FF-FF-FF (From security.ini)	GNORE security failure and enter monitor mode.

Step 7. Click the Contact Target with These Setting button to connect to the device.

Note: Power cycle will be prompted automatically after this step.

To Backup the Current Firmware and Parameter

- Step 1. Double click UR Upload Range
- **Step 2.** Input the address range for the current parameters and firmware information of your device.

Note: For parameter input value 0x0900 ~ 0x09FF/for firmware input value: 0x0800 ~ 0xFFFF.

Step 3. Press Enter.

Result: A dialog box would pop up to request a file name for

Step 4. Input the file name. Input "xxx.fla" for the firmware file and "xxx.eep" for the parameter file.

Note: The program automatically names the both 2 backup files to xxx.s19 if no file extension is input at this step. In order to identify the 2 files, make sure to follow this step.

To Choose the Upgrade/Restore Image

Step 1. Double click **SS Specify Object File** to select the file for programming in the **Choose Programming Function** window.

📽 Choose Programming Function 🗾 🗖 🔀			
Configuration and Display Commands			
SS Specify Object File			
SM SNOW MODULE			
CS Choose Serial File			
Erase and Blank Check Commands			
BM Blank check module EM Erase module			
EN Erase if not Blank			
Program Commands PB Program butes			
PM Program module			
PS Program Serial Number PR Program Module Range			
Verify Commands			
VM Verify module (All Bytes) VR Verifu range			
VC Verify CRC of Object File to Module 🚽			

Step 2. Select file 908_az60a_highspeed.08P in the pop-up dialog box and click Open.

Specify Program	mming Algorithr	n to Use!	? 🛛	
Look in:	algorithms		· ← 🗈 💣 📰 ·	
My Recent Documents	908_AP16.08P 908_AP16_Higt 908_AP16_Higt 908_AP16A.08 908_AP16A_Higt 908_AP32_N8P 908_AP32_Higt	1Speed.08P p ghSpeed.08P 1Speed.08P	908_as60.08P 908_as60_highspeed.08P 908_as60a.08P 908_as60a.08P 908_as60a_highspeed.08P 908_AZ0_EEPROM.08P 908_AZ0_EEPROM.08P 908_AZ32A.08P	
Desktop My Documents	908_AP32A.08P 908_AP32A_HighSpeed.08P 908_ap64.08p 908_ap64_highspeed.08p 908_ap64_highspeed.08p 908_ap64_A08P		908_az32a_highspeed.08P 908_az32a_slowspeed.08P 908_az60.08P 908_az60.08P 908_az60_highspeed.08P 908_az60_highspeed.08P 908_az60a.08P	
My Computer	908_AP64A_HighSpeed.08P 908_AS32A.08P 908_as32a_higt 908_as32a_slov		回908_az60a_highspeed.08P 回 908_bd48.08p 回 908_EY8_trim\$fdff_HighSpeed.08P 回 908_EY8_trim\$ff80.08P	
			>	
My Network Places	File name:	908_az60a_highspeed.08P	Open	
	Files of type:	P&E Prog Algorithm (*.08P)	Cancel	

Step 3. Browse to your file directory in the **Look In** drop-down box and Select All Files in the **Files of Type** drop-down box to show the unlisted file types.

All Files (".") All Debug/Object Files S-RECORD Object File (".s19) IEEE-695 Object/Debug ELF/DwARF(2.0) ImageCraft(v1.1) All Files (".") **Step 4.** Select the target file and click **Open**. Select the xxx.fla file for this example. The files names are defined by Cisco as the following description.

Specify Object	File to Load		? 🛛
Look in:	🗀 download	<u> </u>	È 💣 🖩 -
	द्य 744605H.eep द्य 744605H.fla		
Documents			
Desktop			

- a. Document with the file extension xxx.eep is the parameter file for the device.
- **b.** Document with the file extension xxx.fla is the firmware file for the device.



Note: Follow the steps below in **To Upgrade/Restore Your Device** to restore the firmware and/or parameter of your device by loading the xxx.fla file and the xxx.eep file you have backed up.

To Upgrade/Restore Your Device

▲ CAUTION

- Backup your parameter file before upgrading! Once the parameter file is upgraded/restored, all parameters including MAC address, frequency, and level etc. will be cleared or set back to default. No MAC address is included in the default parameter.
- Step 1. Double click EM Erase Module to erase the current setting on your device.
- **Step 2.** Double click **PM Program Module** to load the xxx.fla file (firmware file) chosen in section **To Choose the Upgrade/Restore Image**.
- **Step 3.** Redo the steps in section **To Choose the Upgrade/Restore Image** to choose the .eep file (parameter file).
- Step 4. Double click PM Program Module again to load this file.
- Step 5. Double click **RE Reset Chip** to upgrade/Restore your device.



Step 6. Double click QU Quit to exit.

Note: The upgrade/restore will be valid after restarting the connected device.



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For Information

Support Telephone Numbers

This table lists the Technical Support and Customer Service numbers for your area.

Region	Centers	Telephone and Fax Numbers
North America	Cisco Services	For <i>Technical Support</i> , call:
	Atlanta, Georgia	Toll-free: 1-800-722-2009
	United States	Local: 678-277-1120 (Press 2 at the prompt)
		For Customer Service, call:
		Toll-free: 1-800-722-2009
		Local: 678-277-1120 (Press 3 at the prompt)
		Fax: 770-236-5477
		E-mail: customer-service@cisco.com
Europe,	Belgium	For <i>Technical Support</i> , call:
Middle East, Africa		Telephone: 32-56-445-197 or 32-56-445-155
		Fax: 32-56-445-061
		For Customer Service, call:
		Telephone: 32-56-445-444
		Fax: 32-56-445-051
		E-mail: service-elc@cisco.com
Japan	Japan	Telephone: 81-3-5908-2153 or +81-3-5908-2154
		Fax: 81-3-5908-2155
Korea	Korea	Telephone: 82-2-3429-8800
		Fax: 82-2-3452-9748
		E-mail: songk@cisco.com
China (mainland)	China	Telephone: 86-21-2401-4433
		Fax: 86-21-2401-4455
		E-mail:repaircentercn@external.
		cisco.com
All other	Hong Kong	Telephone: 852-2588-4746
Asia-Pacific countries &		Fax: 852-2588-3139
		E-mail: support.apr@sciatl.com
Brazil	Brazil	1 elephone: 11-55-08-9999
		Fax: 11-55-08-9998
		ecavalhe@cisco.com

For Information

Region	Centers	Telephone and Fax Numbers
Mexico,	Mexico	For <i>Technical Support</i> , call:
Central America, Caribbean		Telephone: 52-3515152599
		Fax: 52-3515152599
		For Customer Service, call:
		Telephone: 52-55-50-81-8425
		Fax: 52-55-52-61-0893
All other	Argentina	For <i>Technical Support</i> , call:
Latin America countries		Telephone: 54-23-20-403340 ext 109
		Fax: 54-23-20-403340 ext 103
		For Customer Service, call:
		Telephone: 770-236-5662
		Fax: 770-236-5888
		E-mail: keillov@cisco.com

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