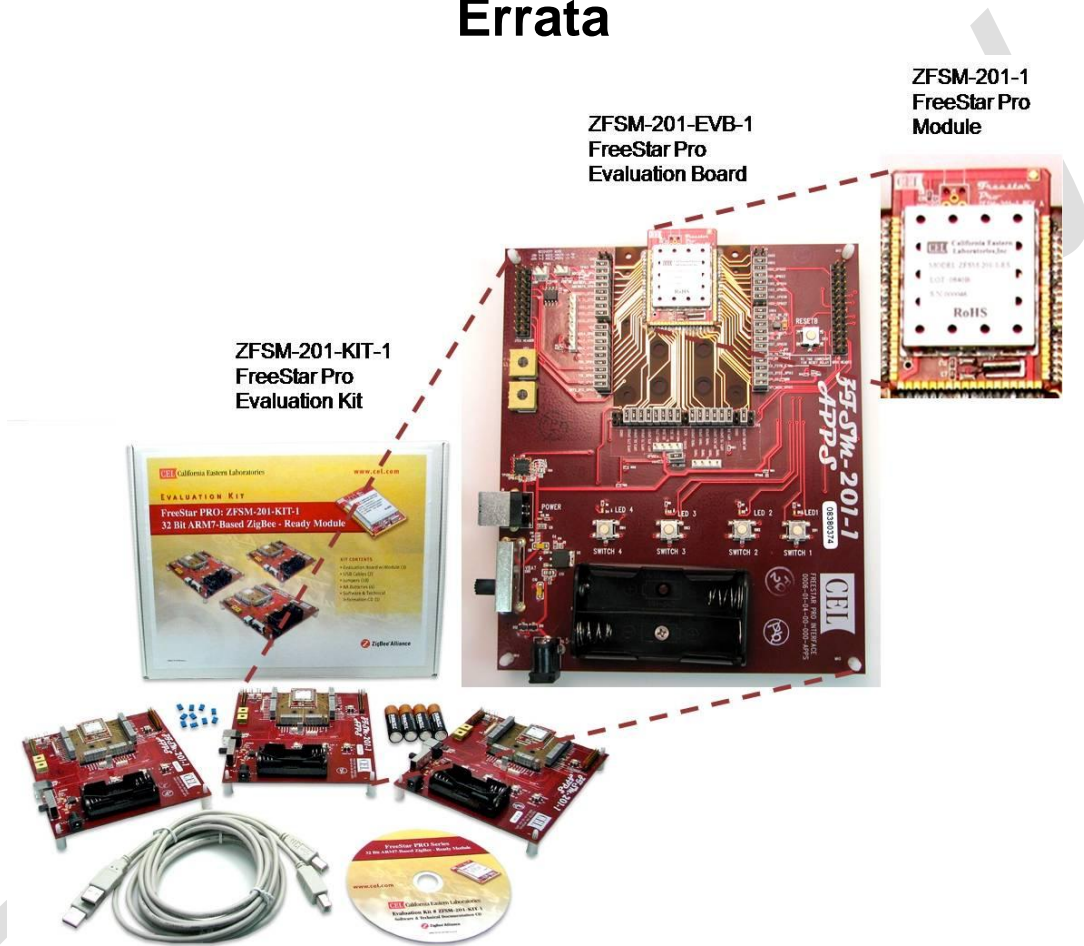


Free Star Pro Series

**ZFSM-201-KIT-1
ZFSM-201-EVB-1
Errata**



ZFSM-201-1
FreeStar Pro
Module

ZFSM-201-EVB-1
FreeStar Pro
Evaluation Board

ZFSM-201-KIT-1
FreeStar Pro
Evaluation Kit

ZFSM-201-1 FreeStar Pro Module

Document # 0006-00-08-04-000

(Rev A)

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1 PURPOSE OF THESE ERRATA

The purpose of these Errata is to document corrections to software and hardware that have been implemented or are in process at the time of the release of this document. Related documents are given in Table 1, with their revision and edition information and their publish dates. Hardware drawing numbers and issue levels and software revision numbers and release dates are given in Table 2.

Table 1 – Related and Referenced Documents

<u>Document Title</u>	<u>Document Number</u>
Freescal Semiconductor Documents (www.freescale.com)	
BeeKit™ Wireless Connectivity Toolkit Quick Start Guide	BKWCTKQSG (Rev 1.7) 2008
BeeKit™ Wireless Connectivity Toolkit User's Guide	BKWCTKUG (Rev 1.6) 10/2008
MC13224V Datasheet	MC1322x (Rev 1.7) 06/2008
MC1322x Reference Manual	MC1322xRM (Rev 0.0) 06/2008
MC1322x Software Driver Reference Manual	22XDRVRRM (Rev 1.1) 10/2008
MC1322x Simple Media Access Controller (SMAC) Reference Manual	22xSMACRM (Rev 1.1) 10/2008
Simple Media Access Controller (SMAC) User's Guide	SMACRM (Rev 1.5) 03/2008
Freescal Test Tool User's Guide	TTUG (Rev 1.2) 10/2008
Freescal BeeKit™ Wireless Connectivity Toolkit Software Version 1.9.2 Release Notes	BKWCTKRN (Rev 0.0) 10/2008 new
IAR Systems Documents (www.iar.com)	
IAR J-Link and IAR J-Trace User Guide	J-Link_J-TraceARM-1 (1 st Ed) 6/2006
IAR Embedded Workbench® IDE User Guide for ARM® Cores	EWARM_UserGuide.ENU (14 th Ed) 6/2008
CEL Documents (www.cel.com)	
ZFSM-201-1 Datasheet	0006-00-07-00-000 (Rev A) 10/2008
ZFSM-201-KIT-1 Development Kit User Guide	0006-00-08-00-000 (Rev A) 10/2008
ZFSM-201-EVB-1 Evaluation Board Programmers Guide	0006-00-08-02-000 (Rev A) 10/2008
ZFSM-201-EVB-1 Evaluation Board Host Serial & RF Protocol Guide	0006-00-08-01-000 (Rev A) 10/2008
ZFSM-201-EVB-1 Evaluation Board BeeKit Porting Guide	0006-00-08-03-000 (Rev A) 10/2008

Table 2 – Hardware and Software Versions

CEL Hardware (www.cel.com)		
<u>Description</u>	<u>Drawing Number</u>	
ZFSM-201-EVB-1 FreeStar Pro Evaluation Board	0006-01-03-02-001 (Issue ES)	
ZFSM-201-KIT-1 FreeStar Pro Engineering Evaluation Kit	0006-02-00-00-000 (Issue ES)	
Software		
<u>Software Program</u>	<u>Version</u>	<u>Release Date</u>
Freescal BeeKit™	1.9.2	10/14/2008
ARM7™ SMAC Codebase	1.0.4	10/14/2008
Freescal Test Tool	11.1.0	2004
CEL/LSR FreeStar Pro Test Tool	1.30	10/22/2008
CEL/LSR Sample Project Application Firmware (CEL_SMAC_104_DP)	1.11	10/22/2008

2 FREESTAR PRO TEST TOOL (GUI) SOFTWARE (Ver. 1.30)

2.1 Changing Channels in Multiple Channel Steps

- *Intermittent Problem:* Changing channels from 11 to 26 (or other multiple channel jumps) in CW mode causes the EVB (on an intermittent basis) to latch in a mode where it is no longer communicating with the PC. A RESET is necessary to return the EVB to normal operation.
 - *Indications:* LED4 is constantly illuminated; signal on the spectrum analyzer scrolls over multiple frequencies; GUI shows the 'RF Channel' in red type

3 FREESCALE SOFTWARE

3.1 BeeKit™ (Ver. 1.9.2) Platform Editor Tool

- The new version of **BeeKit™** & **ARM7 SMAC** (Ver. 1.0.4) contains a 'Platform Editor' to configure GPIO, RF ports, etc. All of the functions port over to IAR correctly, but they are never called in the software. Users creating a new SMAC project out of **BeeKit** need to add a function call to PlatformPortInit (); in the generic_app_init() function in the **generic_app.c** file. Table 3 shows the new code in the affected Sample Project file (which may be copied) in the directory \ZFSM-201 \Application Source Files \Sample Project V1.11\CEL_SMAC_104_v1.11 \CEL_SMAC_104_DP \Application \Source\ on the CEL CD. Inserted line is highlighted

Table 3 – Code, Changes to Add a Function Call

generic_app.c
<pre> /***** * generic_app_init function * * This function . *****/ static void generic_app_init(void) { gbDataIndicationFlag = FALSE; u8AppChann = CHANNEL_NUMBER; u8AppPower = gDefaultPowerLevel_c; isUartDataRdy = FALSE; /*****/ /* Init all your global variables here */ /*****/ </pre>
<pre> PlatformPortInit (); </pre>
<pre> ITC Init(); </pre>

- In **BeeKit™**, in the 'MC1322x User Defined Target Editor' area, any changes made in the third tab, 'GPIO Port Registers', are not saved in the configuration file.

3.2 Buck Regulator

- To date the Freescale MC13224V software support for the buck regulator is not available.

3.3 Low RF Power Out on Initial Transmit

A possible race condition exists between the external regulator and the transmit control. A subroutine is provided that corrects this issue. If the subroutine is not used, the first transmit packet (or part of a packet) may be at a lower output power level until the regulator voltage has

completed its ramp up.

- The voltage regulator on the module that supplies the RF power amplifier has a 105µs turn-on time before the power amplifier is able to transmit at max output power. If GPIO44 is configured as a special data function such as TX_EN, it is under transceiver control with only a 60µs delay between TX_EN being activated and the transceiver chip starting data transmission. The RF power amplifier is still ramping on when that transmission begins, resulting in the first couple of bits being low in power.
- In the current version of software and hardware, GPIO44 is configured as a general purpose output, with TX_EN under software control where it has been configured so that the transceiver starts transmitting data only after the voltage regulator has fully turned on.
- Users of SMAC codebases need to modify the code that **BeeKit™** outputs in accordance with the instructions given in the section titled “**Changes to PA and RF Switch Control**” in the “**ZFSM-201-EVB-1 BeeKit Porting Guide**” (CEL Doc #0006-00-08-03-000).

4 CEL HARDWARE – ZFSM-201-EVB-1 EVALUATION BOARD

4.1 RF Certifications

- FCC, IC and CE Certification of the Module are in progress

5 REVISION HISTORY

<u>Revision</u>	<u>Date</u>	<u>Description</u>
A	29Oct08	Released