





- The bootloader and user application have been rebuilt with SDK version 10. Minor improvements and bugfixes were included.
- Version 8.0.0 of the S110 Soft Device (compatible with SDK version 10) is now loaded on the Nordic radio.

#### Change 3: New default FW on the Ezairo 7100 DSP.

The Ezairo 7150 SL is a hybrid module that includes, among other, the Ezairo 7100 DSP and a 2 Mbit EEPROM, in which the Ezairo FW is stored.

The default software stored in the EEPROM has been modified. We are replacing a simple “audio pass-through” application by our first version of the Ezairo 7150 SL Pre Suite firmware bundle. Our Pre Suite firmware bundle includes default hearing aid algorithms that can be used in end products, and is firmware-upgradeable in the field using the Ezairo Sound Designer Software.

Customers developing their own hearing aid firmware should overwrite the default Pre Suite firmware bundle with their own firmware. Note that the debug port of Ezairo 7150 SL will now be in Restricted Mode, and customers must use the debug port protocol to Wipe and Unlock the device in order to overwrite the default application with their own firmware.

#### Change 4: Two additional system clock calibration settings

We are introducing 2 additional system clock (SYS\_CLK) calibration settings for 12.80 and 15.36 MHz. These 2 calibration settings are introduced through a modification of the production test program. The new test program is computing the calibration settings for these 2 SYS\_CLK values and writing them in the manufacturing area of the EEPROM in the “CLKCAL\_ENTRY” area.

2 VDDC calibration values will be included:

- The default VDDC calibration value, available today, for VDDC = 0.82 V is stored in the VDDC calibration entry located in the Manufacturing Area of the EEPROM at address 0x0064.
- A new calibration value for VDDC = 0.88 V will be stored in the Manufacturing Area of the EEPROM at address EEFS\_VDDC\_ALT\_CAL\_ADDR (0x00E8). This VDDC value should be used for SYS\_CLK values of 12.80 or 15.36 MHz.

In order to retrieve the calibration value for VDDC = 0.88V from EEPROM, the macro EELIB\_ReadWord24 can be used.

Note that the default clock calibration settings (10.24 MHz) will not change. The default VDDC calibration settings (0.82 V) will not change either. This means that the proposed new calibration settings will not impact an application that doesn't use these settings.

Implementation of the changes will be controlled by work order number. Devices shipped after the Proposed first ship date, or earlier, pending customer approval, will include the proposed changes. Exact order number will be communicated to customers individually. OPN will not change.

The Ezairo 7150 SL datasheet has been updated and the new version will be available of the PCN issue date.



**Reliability Data Summary:**

No changes in manufacturing material or processes.

Functional verification tests of the Nordic IC Rev3 were done.

**Electrical Characteristic Summary:** Electrical characteristics presented in the Ezairo 7150 SL datasheet are not impacted. Note that some of the electrical characteristics of the nRF51822 are changing with the Rev2 to Rev3 transition, but they do not impact the Ezairo 7150 SL specifications detailed in the Ezairo 7150 SL datasheet. For more details about the changes of electrical characteristics of the nRF51822, please refer to pcn\_092\_v1.2 (see link above).

**List of affected Standard Parts:**

Part Number	Qualification Vehicle
E7150-102A49-AG	E7150-102A49-AG
E7150-102A49-BPG	E7150-102A49-AG