



STEVAL-MKI094V1

MEMS demonstration board based on the LYPR540AH
(three-axis analog output gyroscope)

Data brief

Features

- Two different working modes:
 - analog (AWM)
 - digital (DWM)
- RoHS compliant

Description

The STEVAL-MKI094V1 is a demonstration kit designed to provide the user with a complete, ready-to-use platform for demonstration of the LYPR540AH product family.

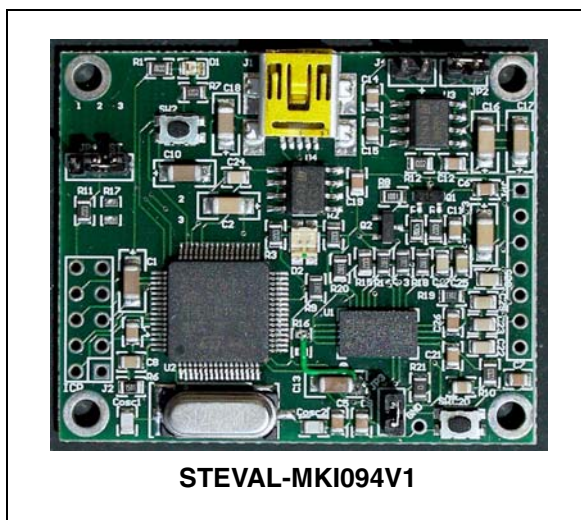
The kit includes a sensing element and an IC interface capable of translating information from the sensing element into a measured signal that can be used for external applications.

In addition to the MEMS sensor, the demonstration board uses an ST7 microcontroller which functions as a bridge between the sensor and the PC. This makes it possible to download the graphical user interface (GUI) from the website or to use dedicated software routines for customized applications.

The STEVAL-MKI094V1 demonstration board has been designed for use in two different working modes: analog and digital

In analog mode (AWM) the microcontroller on the board is disabled and the analog outputs of the device are available to the user on a dedicated connector. This is the default working mode when the power supply is applied either through the USB connector or through the supply connector.

In digital mode (DWM) the microcontroller on the board is enabled and it allows the user to digitally acquire the output signals of the device, to see them on the PC through the dedicated GUI, and to control the control pins of the device.



1 Schematic diagrams

Figure 1. Sensor section

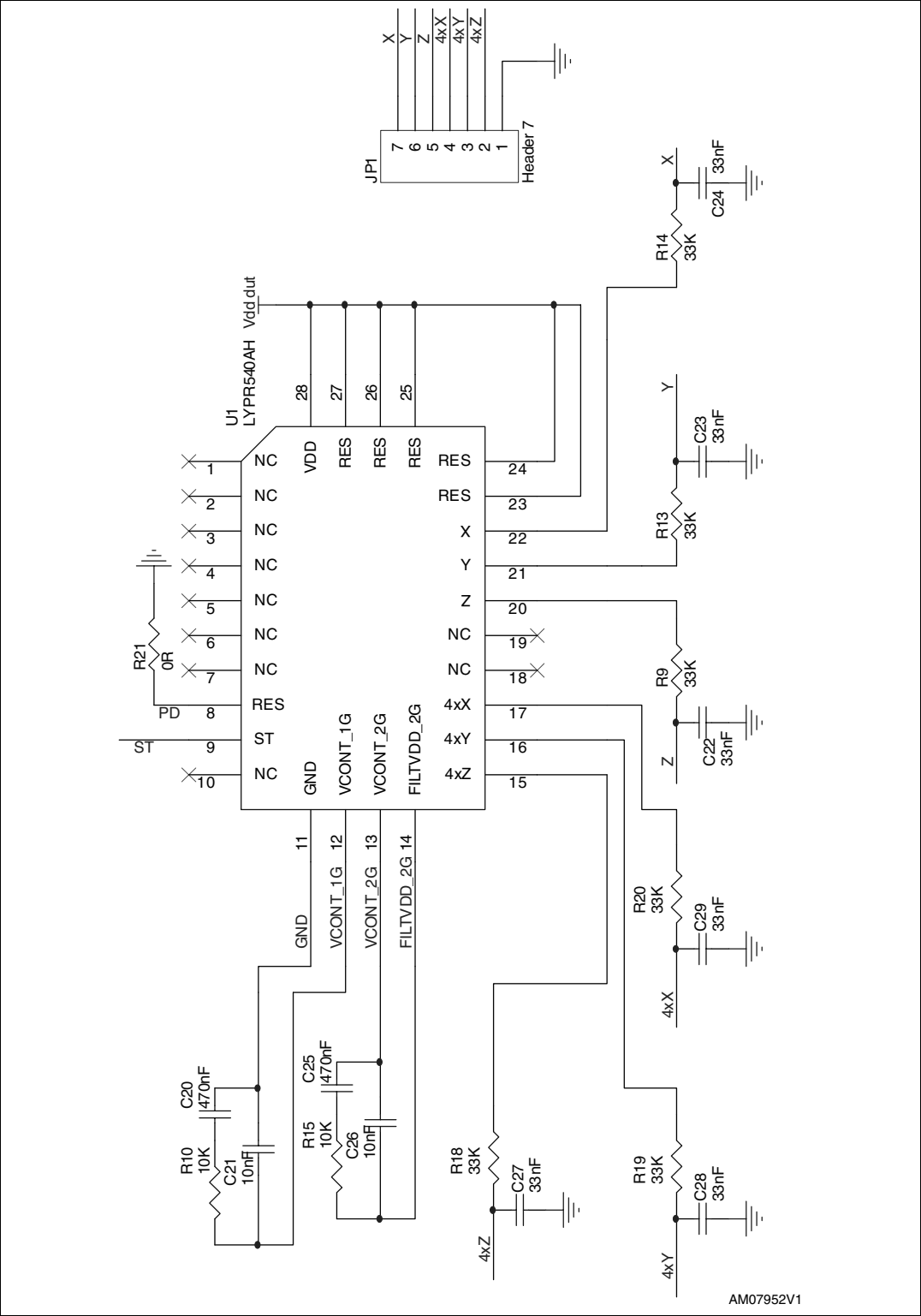


Figure 2. Microcontroller section

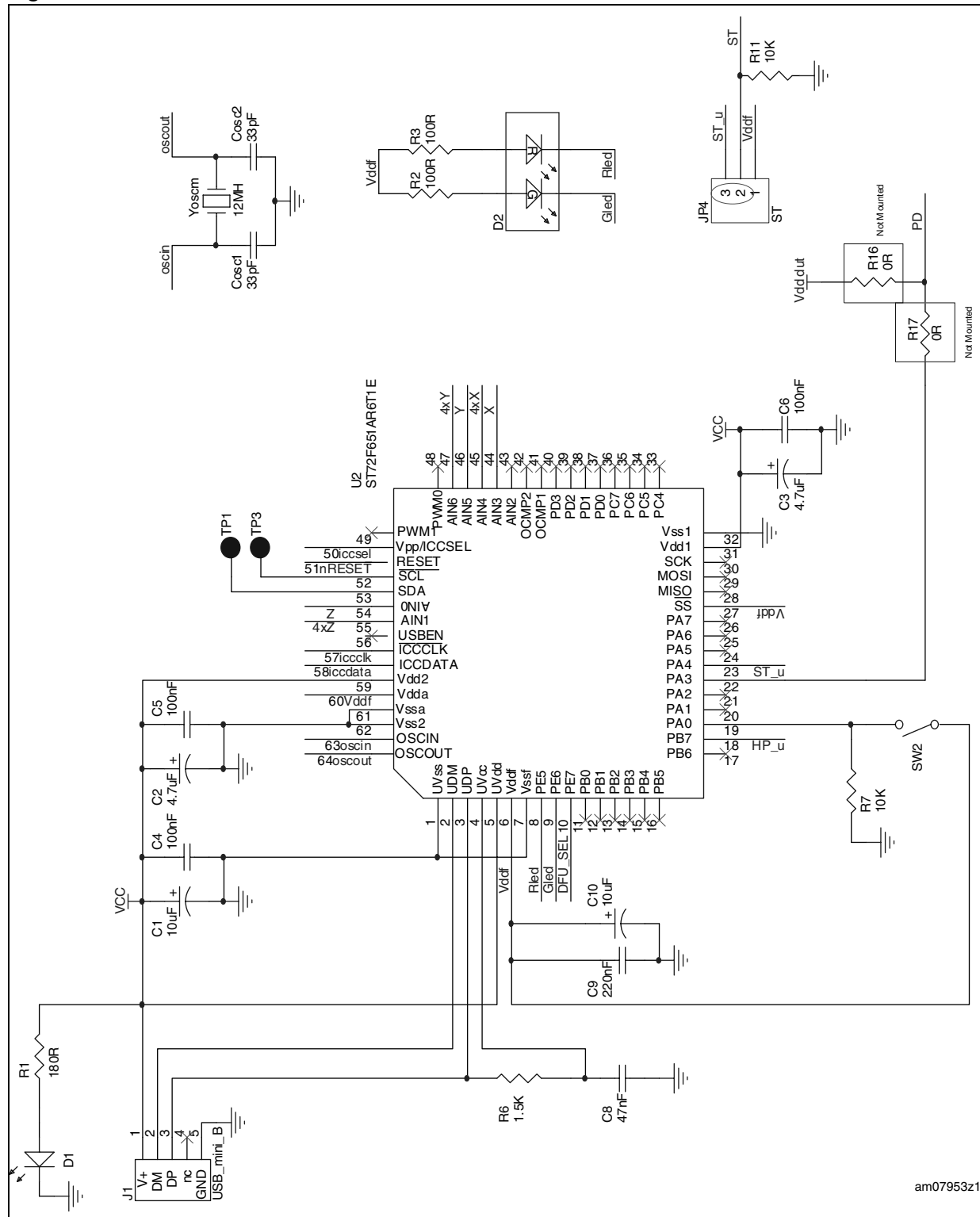
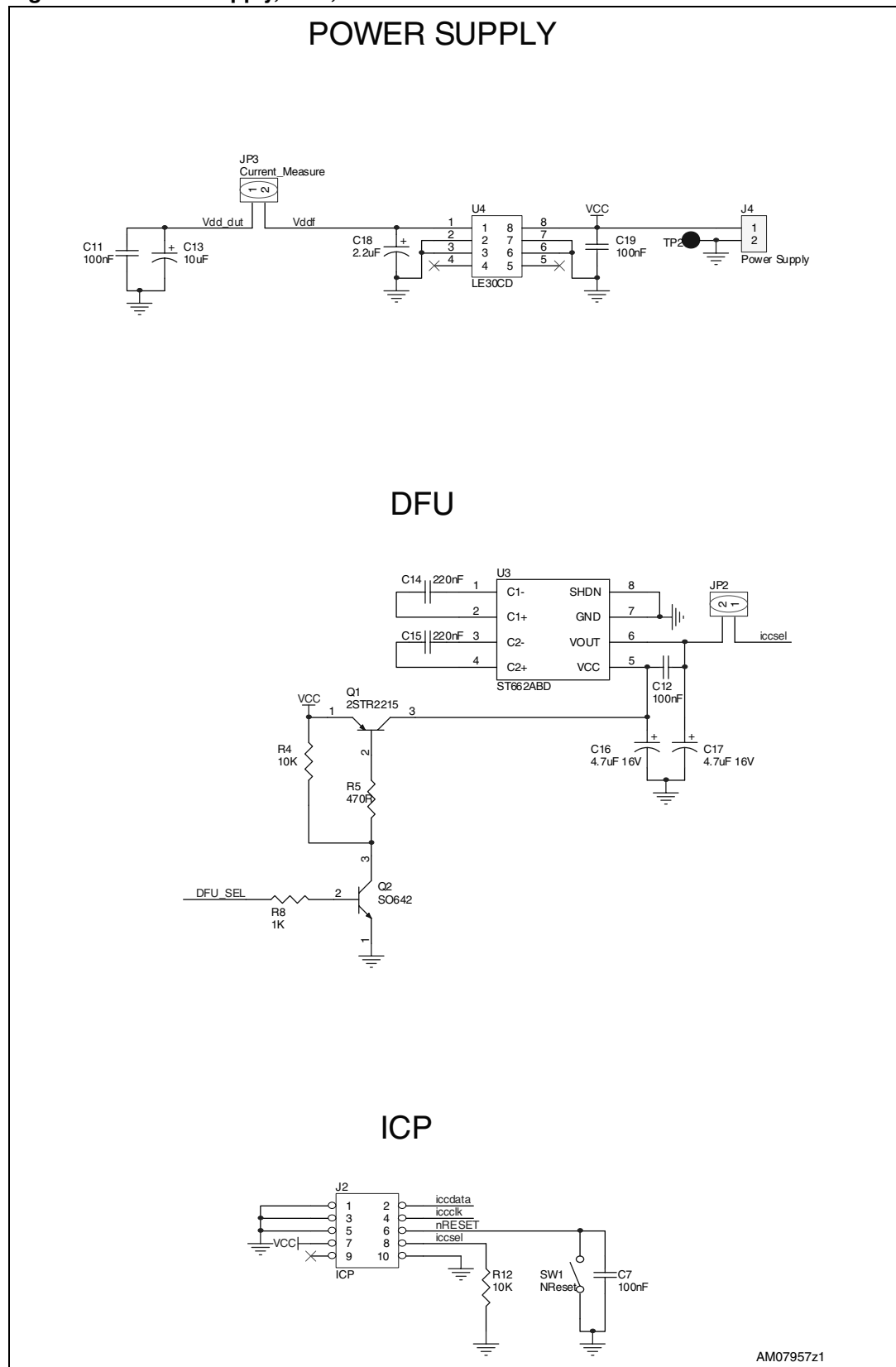


Figure 3. Power supply, DFU, ICP section



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
10-Sep-2010	1	Initial release.

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