**Answers to the reviewers**

First of all, the authors wish to thank all the reviewers for their revisions, positive comments and useful suggestions.

**Reviewer A:**

**The paper does not contain many new ideas. It is mostly description of an engineering work. Anyway it is very well processed with detailed deep and exact description and explanation including also results of prototype testing. Therefore I decided to recommend it for publishing in Acta IMEKO.**

We thank the reviewer. We also believe this work is useful to other researchers that need to develop their own, purpose driven, acquisition systems.

**Reviewer B:**

**I believe that this DAQ will be useful in measurement applications and it is best documented scientifically. Presentation is appropriate for publishing the paper in a prestigious journal like ACTA IMEKO. I hope that the authors will make interesting applications with implemented DAQ.**

We thank the reviewer for the comment.

**Reviewer D:**

**The paper presents a general purpose data acquisition board based on a well known commercial architecture completed with a DSP for on-board high speed signal processing. The novelty of this approach seems to be only the inclusion of the DSP on the measurement chain, even if the sampling rate is quite low (600 kHz). However, the board seems to have been built with an exact purpose, perhaps acquisition of signals from a power system. This would have been good to be emphasized in the paper in order to elucidate some aspects as follows:**

* **in section 2.1 the phrase “It is dimensioned to sustain input direct connection into the power grid without any system damage and complete operability afterwards” has no meaning. Please be more specific.**

We have tried to clarify this, please see the marked changes in page 3, section 2.1.

* **what are the input limits for a channel?**

We have clarified this. Please see the marked changes in page 3, section 2.1. For correct operation (i.e., the system is able to digitize the input voltages), the maximum input voltage is ±10 V. The absolute maximum rating is ±325 V ().

* **why the input voltage must be devised by 5 if you amplify it afterwards? As briefly explained, this is done for avoiding “incorrect usage”. What does “incorrect usage” mean?**

This is related to the section 2.1 question above. The idea was to build a general purpose acquisition system capable of measuring in multiple ranges with the largest range from -10 V up to 10 V. However, the system must be able to withstand a mistake by the end user where he connects the system directly to the power grid. In these conditions, the system must be able to withstand the connection, not damage any of its internal components and, after correction of the mistake, resume operation without the need for any technical intervention/repair. We have clarified this in the marked changes in page 3, section 2.1.

**Other observations:**

* **the sample and hold circuit from the general schematic in Fig. 1 is missing. Otherwise there is no reference to it in the whole paper.**

We have not included a specific sample and hold circuit because of the way the selected ADCs operate. They sample the input voltage and maintain its voltage in the internal capacitors. We have added a sentence to clarify this issue in the document. Please see the marked changes in page 4, section 2.2.

* **in the caption of fig. 14 “left-right” should be replaced with “up-down”.**

We have corrected this typo. Please see the caption of Fig. 14.

* **why the authors have chosen a signal 91.5523 kHz for determining inter-channel cross-talk. Have the significant digits any importance in this approach?**

We agree that this value seems strange if not explained. The value was selected having in mind three restrictions: (i) the spectral leakage of the signal should be minimized; (ii) select a frequency high enough to ensure the test covers a big frequency range of the device (we could have done it with 1 kHz but that would not be as representative of the device whole range); (iii) finally ensure that if higher harmonics of the signal are present, they do not fold in the spectrum right on top of the main frequency component. Obviously other values could have been selected to ensure this set of restrictions and we have tried with other values to ensure that the presented results are representative of the system characteristics. Please see the marked changes in page 5, 2nd column, where we have included this explanation.

* **it would be good to give an example for illustrating the use of the DSP on the board.**

Actually, the FFT presented in figure 14 were calculated by the device. We have opted not to include more use because we feel that we would narrow the possible use of the device which was always meant to be an open canvas, where the user can choose what to implement in the system.