



UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
325 Broadway
Boulder, CO 80305-3337

January 23, 2018

Dipartimento di Fisica
Università di Milano-Bicocca
Piazza della Scienza, 3
20126 Milano
Italy

Dear Prof. A. Nucciotti,

As requested in reference to the project HOLMES, funded by the European Research Council of the European Commission under Grant Agreement no. 340321, I'm pleased to provide the following cost estimates for the development of the firmware required to program the FPGA in the ROACH2-based system which is used to read out 32 microwave multiplexed SQUID amplifiers.

The total cost of the firmware development is \$40,000.

Please do not hesitate to contact me if you need additional information.

Best regards,

Dr. Joel Ullom
Group Leader, Quantum Sensors
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