



ISS End-Station at NSLS-II light source, equipped with xMap processors from XIA

# XIA LLC Newsletter

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## XIA update

2017 was another exciting year at XIA with the introduction of a new signal processor platform, the revamping of the FalconX ultra high rate x-ray signal processor, continuing work with NASA/JPL for the Mars 2020 mission, and the expansion of our overseas representation, to name just a few of many projects. Please read ahead for more detail .....



*The FalconX8*

### XIA Pixie-Net, - a new processor platform

The new Pixie-Net digital signal processor has expanded XIA's gamma spectroscopy product range beyond the successful PXI format to a stand-alone card utilizing a ZYNQ SoC with FPGA and ARM processor on the same chip. With similar features and performance to the Pixie-4 Express, the Pixie-Net's embedded processor runs on Linux with Gbit Ethernet to a web interface. (No PC required). See <http://www.xia.com/Pixie-Net.html> for more information.



*XIA's new Pixie-Net*

### FalconX8 upgrade

The ground breaking FalconX ultra high rate digital signal processor recently went through hardware and firmware upgrades to improve its performance even more. The FalconX is now offered as an eight-channel processor with options to activate a lower number of channels, as needed. The FalconX has kept pace with the latest high-rate detector technology, and when used with high performance SDDs it can process more than 3Mcps per channel with only minor degradation in energy resolution compared to low rates.

### Mission to Mars

XIA is proud to contribute to the PIXL Microfocus XRF instrument to be launched on NASA's 2020 mission to Mars. This new mission to Mars will look for signs of habitable conditions and microbial life in the ancient past. The rover's Planetary Instrument for X-ray Lithochemistry (PIXL) is a microfocus x-ray fluorescence instrument that will incorporate XIA's technology and expertise to perform 2D fast

mapping of rock samples with sub-mm spatial resolution, revealing the geochemical fine structure of the Martian surface. PIXL will operate with higher spatial resolution and at higher speed than any previous planetary probe. Along with other instruments, PIXL will help answer the question "Was there ever life on Mars?"



### XIA expands presence in India

XIA is pleased to announce a Representatives Agreement with ADVANCETECH Controls Pvt. Ltd, a technology based business group centered in Mumbai, India. Advancetech's nuclear instrumentation team has over 20 years' experience in the Indian market and is heavily involved with the sale of Clover HPGe detectors to India's national research facilities. Advancetech's sales network is a natural fit for XIA's gamma spectroscopy products, and we look forward to a long and fruitful relationship!

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