Skylabs Company presentation

10th ADCSS workshop ESTEC/ESA

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Competences

- Embedded electronics and software development
- Analog electronics, radio systems, and signal processing
- Miniaturization key aspect (following technology trends)
- IP Cores (digital and mixed signals)
 - Hardware accelerated approach
- Awareness of harsh space environment effect
 - Component selection
 - Fault tolerance and mitigation techniques by design
 - FDIR







Jet Propulsion Laboratory California Institute of Technology











Faculty of Electrical Engineering and Computer Science

PicoSkyFT Processor

PicoSkyFT™

Demo @ Booth

A States

- Designed for embedded processing functions within SoC, but still preserving SoC flexibility
- Small footprint, soft-core and fault tolerant processor core
- RISC 16-bit architecture, high code density, and ~ 1 MIPS / MHz
- Radiation hardened by design approach (SEE tolerant)
- FDIR policy for mitigation techniques
- Target applications:
 - Replacement of complex FPGA state machines with simpler piece of SW (lowers validation efforts)
 - Effective and efficient **RTU controller** for **intelligent distributed RTUs**
 - Smart sensors and actuators
 - Payload control computers

PicoSkyFT Processor

PicoSkySIM[™]

- Cycle accurate simulator rapidly increases development
- Technology independent design (processor and its simulator)
- Versatile development boards available

PicoSky[™] Development Board IGLOO2



NANOobc

On-board computer represents the newcomer in the emerging space market.

- Fault tolerant by design
- Redundant mass storage
- Latch-up protection (SkyLabs's LCL)
- SEU/SET/SEL tolerant
- Fully compliant with small foot print PicoSkyFT soft-core processor

Figure: NANOobc EQM

skylabs

Thank you and welcome at our booth

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