

**NDIA Meeting**

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**Agilent Technologies**

# Agenda for Commercial Liaison

- General company news (new companies, acquisitions, etc.)
- General Purpose Test Equipment Modernization Efforts for the Services
- Market information such as size of VXI, LXI and PXI market. Overall instrument market and size.
- *New initiatives*
- *Trends*

# General company news

(new companies, acquisitions, etc.)

# Mergers and Acquisitions

## **Tektronix Acquires Test & Measurement Business From Sypris Solutions, Inc.**

Beaverton, OR, October 26, 2009 – Tektronix, Inc., a leading supplier of test, measurement, and monitoring products and solutions, today completed the acquisition of the Test & Measurement business from Sypris Solutions, Inc. (Nasdaq/NM: SYPR ) for \$39.0 million.

**Agilent Technologies Inc.** (NYSE: A) today announced it has signed a definitive agreement to sell its network solutions business to JDSU (NASDAQ: JDSU; and TSX: JDU). JDSU will pay Agilent \$165 million in cash. Subject to customary closing conditions and regulatory approval, the transaction is expected to be final in the June calendar quarter 2010.

**Agilent Technologies Inc.** (NYSE: A) and Keithley Instruments Inc. (NYSE: KEI) today announced that the sale of substantially all of Keithley's RF product line to Agilent is now complete. As Keithley previously announced, the parties had signed a definitive agreement for the sale on Nov. 19, 2009.

# General Purpose Test Equipment Modernization Efforts



Agilent Technologies

# Army – TEMOD Program

## GPETE PRIORITIZATION LIST\*:

ME-563, Clamp on Ammeter

USM-491, Test Set RF Power

TS-4320/TS-4358, Optical Time Domain Reflectometer

UPM-155, Radar Test Set (IFF)

**Signal Generator, SG-1366/U, (High Frequency - 30 GHz)**

USM-488, Oscilloscope

SG-1205, Pulse Generator

**Telecommunication System Test Set, TS-4544/U**

ME-523, Modulation Meter

**Multimeter, AN/GSM-437**

TS-4165/USM-437, Electrical Cable Test Set

**PRM-34, Radio Test Equipment**

USM-485/608, Transmission Test Set

HQDA G-3 will staff for approval and signature. Once approved, HQDA G-3 will submit to HQDA G-8 for prioritization and funding.

\*July 2009

# Marine Corps System Command

## General Purpose Tools & Test Systems Team

### GPETE Program:

- Works closely with Navy Inventory Control Point (NAVICP) Mechanicsburg for acquisition contracts and Naval Research Lab for technical engineering support & testing
- Cooperates and share resources with NAVSEA GPETE Program
- GPETE technology has/is changing into something I call: SPECIALIZED GPETE – Moving past traditional GPETE
- Focus on technology sub areas (i.e. LAN/WAN, Telephonic/Switching, Fiber Optic, SatComm, RF Radio, Microwave Radio, Radar, etc)
- Based on MOS Skill Set
- GPETE item tailored for specialized functions

# Marine Corps System Command General Purpose Tools & Test Systems Team

## GPETE Program:

### • Example list of current & future GPETE acquisition efforts:

- Oscilloscopes
- Signal Generators
- Frequency Counters
- Power Meters
- Optical Test Set (source & power meter)
- Ground Tester

### • Example list of current & future SPECIALIZED GPETE acquisition efforts:

- Telecommunications Data Test Set (FireBerd 8000)
- LAN Test Set (Fluke ES2-700/AN)
- WAN Test Set (Fluke Opti-View)
- Radio Test Set; Handheld (Aeroflex 3515N)

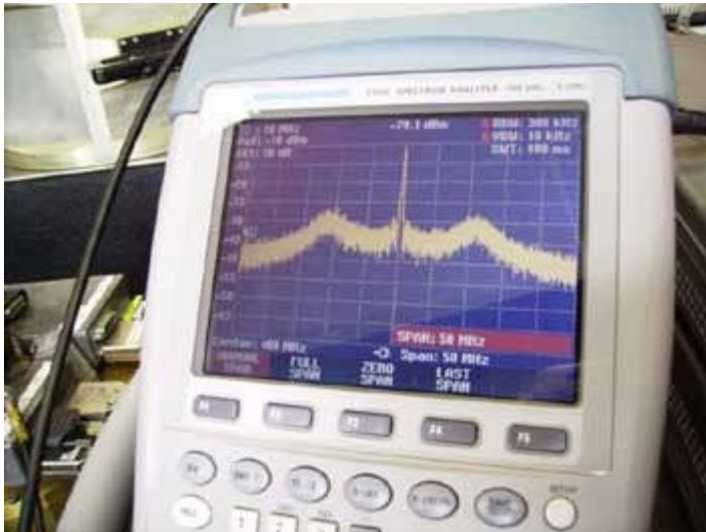


# Air Force

## Efforts to reduce Proliferation

- Inventory Management Specialist replacing old stock with newer items
- When field orders an NSN that is older or obsolete IM sends newer items and disposes of the older items

# Air Force Efforts to reduce Proliferation



*Spectrum Analyzer*

- Reduced from 92 to 4
  - 6625-01-289-0854RH
  - 6625-01-517-5483RH
  - 6625-01-500-8621RH
  - 6625-01-496-3697RH

# Air Force Efforts to reduce Proliferation



**Signal Generator**

- Reduced from 26 to 4
  - 6625-00-407-9007RH
  - 6625-01-435-1678RH
  - 6625-01-508-4205RH
  - 6625-01-344-9277RH

# Air Force Efforts to reduce Proliferation



*Oscilloscope*

- Reduced from 70 to 4
  - 6625-01-450-4919RH
  - 6625-01-529-6724RH
  - 6625-01-461-1503RH
  - 6625-01-227-2169RH

# Air Force Future Efforts

- Electronic Counters
- Multi Meters
- Volt Meters

**Market information such as size of  
VXI,LXI and PXI market.  
Overall instrument market and size.**



**Agilent Technologies**

# AXIe: A New Instrumentation Standard

- AdvancedTCA (ATCA) Extensions for Instrumentation and Test
- Members:
  - ADLINK
  - Aeroflex
  - Agilent Technologies
  - Test Evolution Corp
  - Giga-tronics
  - Guzik
  - Tyco
- AXIe Consortium, Inc.
- Publicly introduced November 10, 2009
- Web site: [www.axiestandard.org](http://www.axiestandard.org)



# AXIe leverages ATCA...

**AXIe**

**AdvancedTCA**

- AdvancedTCA specific extensions
- IPMI and resource management
- Timing and Sync
- Zone 3 configurations

## ...draws from and works with existing instrument standards

**PXI**

- Virtual PXIe instruments
- PCIe communication

**IVI**

- Standard drivers work in all Application Development Environments
- VISA standard

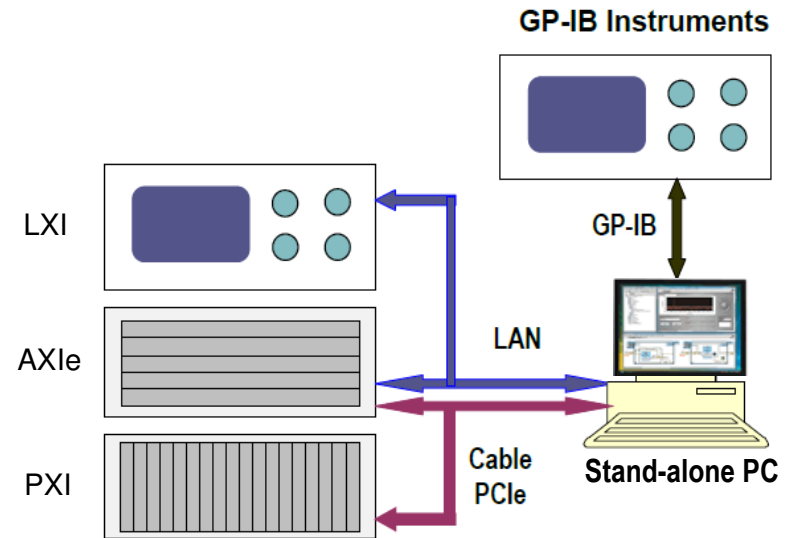
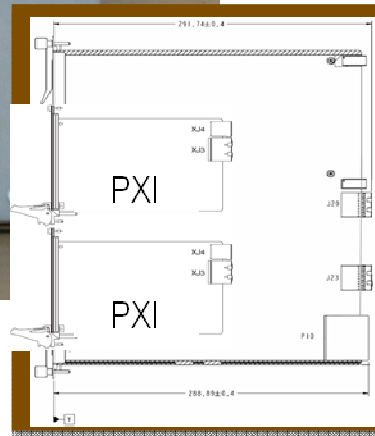
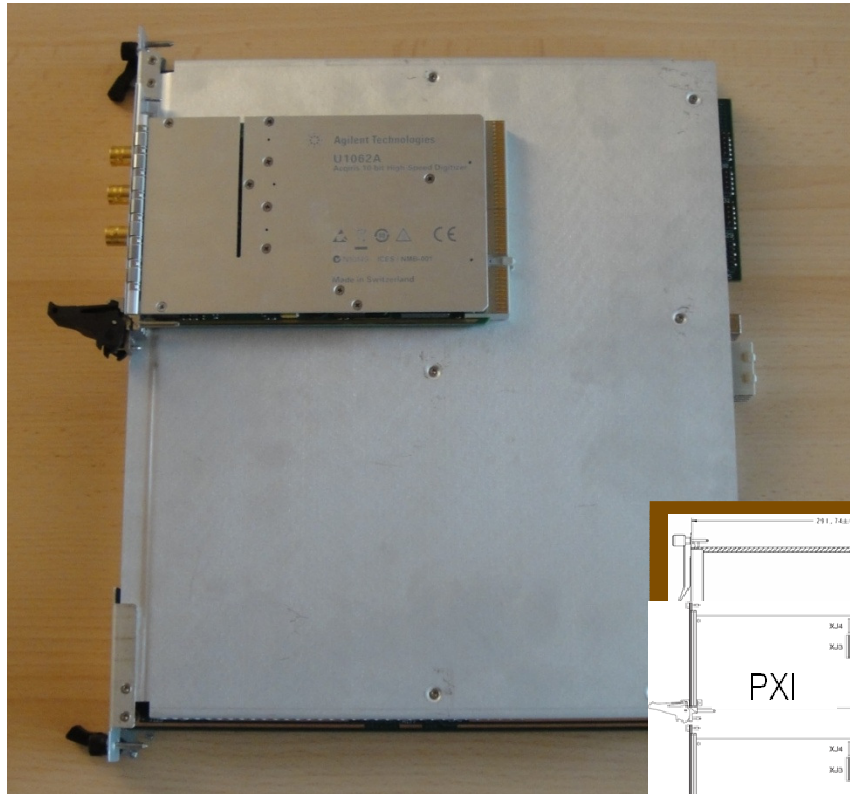
**LXI**

- Virtual LXI instruments
- LAN communication

# Key AXIe and PXIe Comparison

Feature	AXIe	PXIe
Chassis base	AdvancedTCA	cPCI/cPCIe
PCIe maximum data bandwidth (Maximum Gen 2.0): Single peripheral slot to backplane All peripheral slots to system slot/embedded	2 GB/s 26 GB/s	4 GB/s 8 GB/s
PCIe drives common end user software	Same	Same
LAN backplane	Yes	No
Local Bus	16 pairs	1 pair
Triggers	Bidirectional Star Trigger 13 signal MLVDS bus	Star Trigger(1xTTL, 3x Diff per slot) 8 Signal TTL bus
Frequency Reference & Sync	100MHz, yes	10MHz, 100MHz, yes
Power per slot (needed for high data rate applications)	200 W	30 W
Board space per slot (higher density, flexibility)	900 cm <sup>2</sup>	160 cm <sup>2</sup>
Modules available	New	~1100

# Scalability and Compatibility



Common control via

- Rack mounted controller, or
- Embedded controller in chassis, or
- Desktop controller

Common Programming Environment

# High scalability of AXIe

1U



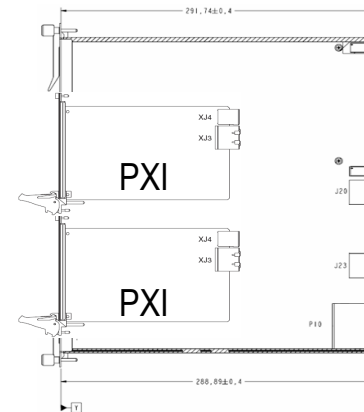
n U Horizontal



14 slot Vertical



Specialty instrument with AXIe module



PXI carrier module

# AXIe 1.0 Backplane Block Diagram

CLOCK, SYNC, and STRIG are “star”-ed with equal-length traces from the SM to Node slot

STRIG is bi-directional and not buffered

