



# Agilent's Four Channel

## Signal Analyzer Platform Z2090B-031

### System Overview

#### System Description

The Z2090B-031 Four Channel Signal Analyzer provides signal analysis capability on up to four simultaneous signals up to a 1.5 GHz bandwidth. The FSCA solution leverages the extremely capable 89601A VSA software to provide high frequency (up to 26.5 GHz) measurements with high measurement bandwidth (up to 1.5 GHz).

#### System Capability

The system enables the user to realize the following benefits:

- Four Channel 26.5GHz Frequency Capability
- 1.5 GHz BW on all Channels
- Coherent Measurement Capability
- 4 Channel Signal Recording
- Time/Frequency/Modulation Domain Measurements

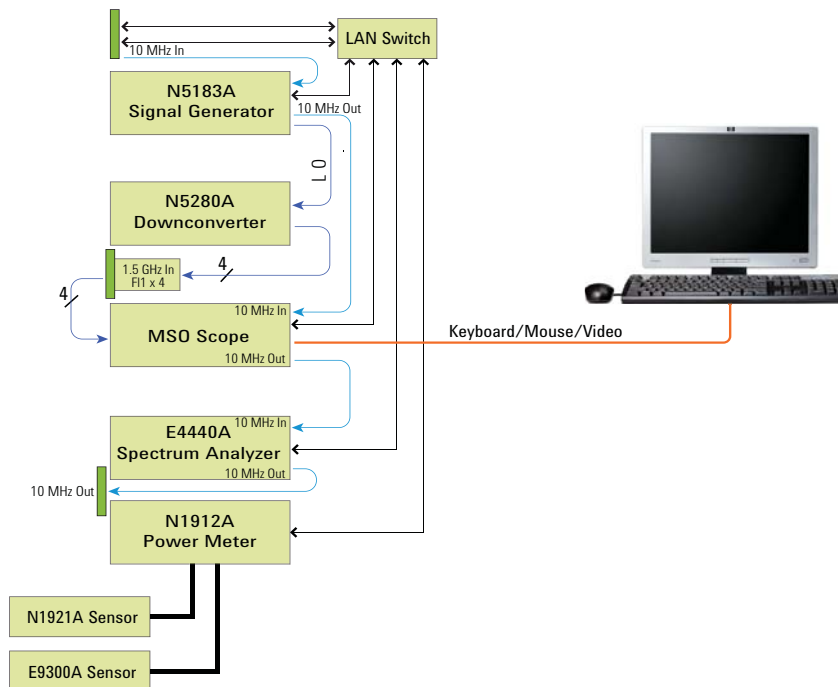
#### Agilent will tailor the system to specific customer needs

Work directly with Agilent's Aerospace/Defense Systems Team to tailor the platform to meet your requirements:

- Define test plans.
- Optimize hardware and software content
- Define specific content provided by Agilent and content provided by customer.
- Define scope of design and delivery services; ranging from custom design of components, build to print, integration, to full turn-key.
- Define level of services required for installation, training and support.

In the process, benefit from Agilent capabilities:

- World-class measurement science expertise
- Global delivery and support
- Disciplined program and project



# System Hardware Building Blocks

The versatile architecture of the Four Channel Analyzer System is built around Agilent instrumentation and analysis software.

## RF Instrumentation

- N5280A 4-Channel Frequency Converter. The N5280A provides four down-conversion channels from 10MHz-26.5GHz RF to a 10KHz-1.5GHz IF. All channels share a common Local Oscillator (LO) which allows coherent channel measurement capability.
- MSO9404A Oscilloscope. The high-performance oscilloscope provides A-D conversion of the 4 IF signals from the N5280A and hosts the 89601 VSA software. This oscilloscope provides direct measurements up to 2.5 GHz of bandwidth. This provides the central user interface for the 4VSA solution.
- N5183A Microwave Signal Generator. The N5183A Signal Generator provides a common LO source for the down-converter. The LO source is nominally configured to support the full 26.5 GHz bandwidth.

## System Controller

- Controller embedded in the oscilloscope is used as a system controller to provide high performance at no additional system cost.

## Interconnect

- Access to system function is via a customizable interface panel as well as the downconverter stander I/O
- The system will operate from a standard 120VAC, 15 Amp circuit. An 8 foot power cord with a 5-15P connector will be provided with the system. In addition a  $\frac{3}{8}$ " ground lug will be provided on the system.

## Operator Interface

- 19" LCD and keyboard, either rack mounted or on swing arm.

## Rack Hardware

- Agilent standard or 3rd party ruggedized rack, PDU and cooling.

## Auxiliary Instrumentation

- E4440A Performance Spectrum Analyzer. Provides traditional spectrum analysis viewing of signals for comparison purposes as well as identifying any out of band signals that could potentially cloud the measurements.
- N1912A Power Meter and Sensor. Provides method for absolute power measurements of the RF signals.

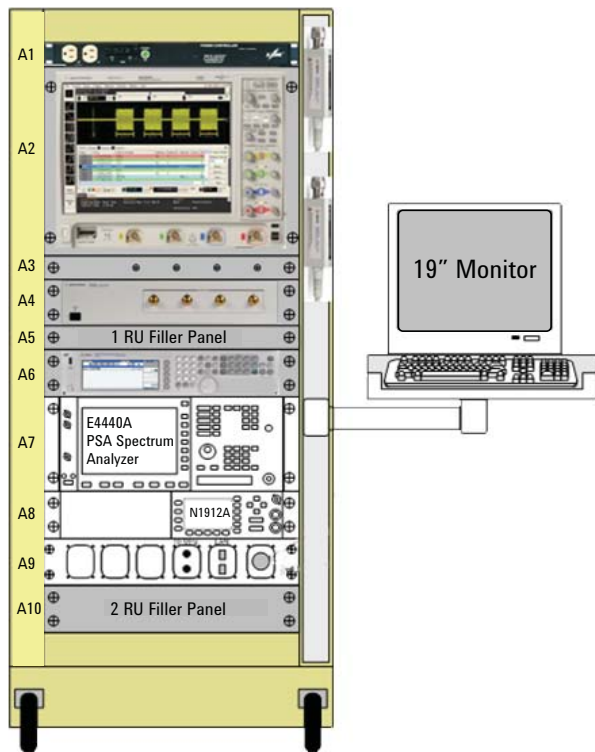
## System Software

The Agilent Aerospace/Defense Systems team provides deep knowledge of test instrumentation and measurement science; and is capable of delivering systems with a wide range of system and measurement software:

- Specific Measurements
- Test Plans
- Self-Test and Calibration available
- Fault Isolation & Troubleshooting Tools
- Automation
- Connections to Factory Floor or Enterprise

## System Benefits

- Superior measurement performance with the latest instrumentation and technologies from Agilent.
- Flexible hardware architecture for characterization, manufacturing and repair.
- Fast development time through use of a standardized test platform.
- Defined support processes: Instrument self-test, Calibration, and System sanitization.
- Lower Cost of Test from use of COTS equipment





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