

AMB5600

Mixed Signal RF – MCU – Digital – IC Test System



Highlight

Amoeba® AMB5600 is the latest evolution in the Amoeba series with a complete range of DC, Analog, Digital and RF testing all-in-one. Built from the ground up based on AXIe and PXIe platforms, it offers the best of both worlds in terms of flexibility and power. With advanced FPGA hardware features and Moridaru™ AI ecosystem, it opens up superior flexibility of an all-in-one semiconductor test system for mass adoption, niche market test and even measurement, making it one of the most powerful systems of its time.

AMB5600 — the first of its kind — will be a game changer in test and measurement market; an all-in-one tester that is not only multi-functional but cost-effective too. In fact, this tester is more than just a typical digital tester that is programmed to only perform as intended, it has its own mind and soul to ensure the best system performance while ensuring product quality and productivity.

Purpose

RF	Analog	Digital	Discrete
◆	◆	◆	◆

Digital Functionality

- ◆ 200MHz vector rate, 128Mb per pin
- ◆ 400Mbps data rate capability
- ◆ 192-Ch digital channels per module
- ◆ PPMU -2V to 7V with 400MHz TMU

Analog and DPS Functionality

- ◆ -2V to 11V DPS with 64-Ch per module
- ◆ Gang-table up to 4A current for DPS
- ◆ Various precision SMU Resource Cards
- ◆ ADC/DAC measurements

RF Functionality

- ◆ Standard 6GHz and high power options
- ◆ Max 32-RF ports with multi-site capabilities

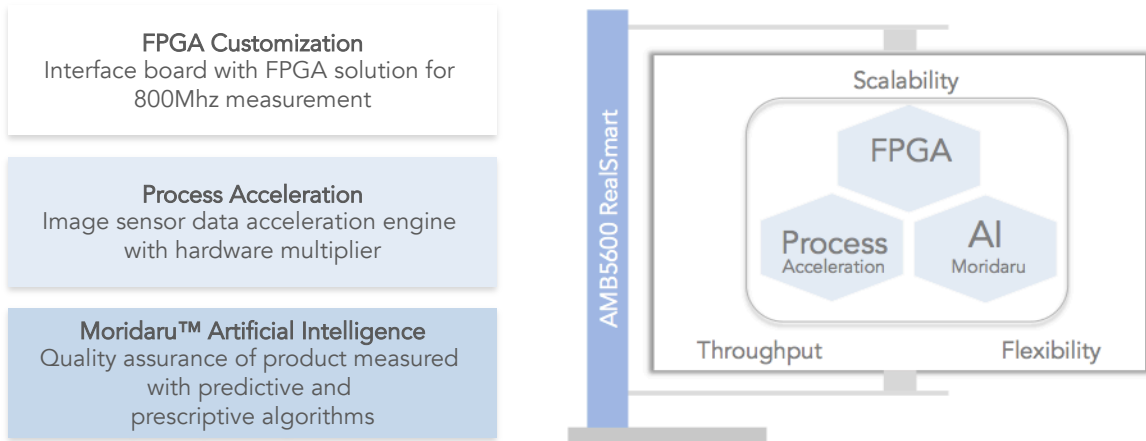
Feature

- ◆ Aerospace AXIe and PXIe architecture
- ◆ High density, high power delivery
- ◆ Extreme parallelism capabilities
- ◆ FPGA expansion and customization
- ◆ Multi-instance production software
- ◆ techFlow3 debug and analyze
- ◆ Moridaru™ Artificial Intelligence

AMB5600

Mixed Signal RF – MCU – Digital – IC Test System

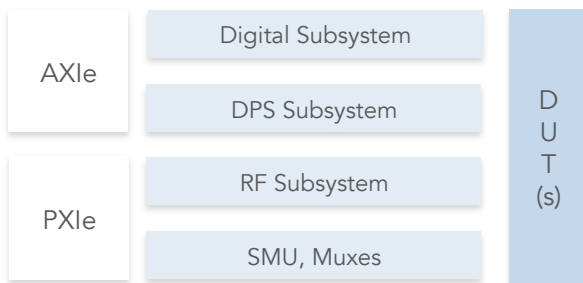
Differentiator with Key Technology Ingredients



Top illustrates RealSmart AMB5600 Test Environment Architecture

AMB5600 covers a full range of degrees in terms of Scalability, Flexibility and Throughput with three key differentiators. With the power of FPGA customization down to interface board level or deeper, test programming/frame processing accelerator engine alongside Moridaru AI ecosystem — the RealSmart AMB5600 system architecture — is truly a revolutionary test system. A proven concept deployed using AI algorithm, the system monitors each device for anomalies with cross domain synthesis and performs a recommended yield recovery according to the product being measured over time.

Test Hardware Architecture



Top illustrates AMB5600 Basic Block Diagram

Test resources for DC, AC, Digital, RF or FPGA are modularized in card modules hence system expansion or basic test config cost is optimized for starters. Basically, with RealSmart Virtualized Tester framework method, there are umpteenth multiple instances of parallelism that the AMB5600 system can offer and that bring down the overall cost of test.

Simulation and Debug

techFlow3



Software is the heart of all hardware modules, it runs in the background on test resources and activities.

Aemulus techFlow3 is a programming environment which connects, links and synchronizes test programs to deliver the best user experience to end users.

This reduces development cycle from start to finish and features rich simulation and debugging tools for ease of troubleshooting and conformance.