AIMVIEW²⁵

APE-FDX-2/AXC-FDX-2/AMCX-FDX-2:

New AFDX[®]/ARINC664P7 family released

On track with Express for triple speed AFDX[®]/ARINC664P7 Test & Simulation

AIM has now developed a family of modules which not only handle all of the AFDX[®]/ ARINC664P7 features, but can also be easily adapted to other types of applications and Ethernet variants.

The hardware platforms for testing the Ethernet based AFDX®/ARINC664P7 have been updated with the new APE-FDX-2 PCI Express board design, utilizing the latest SoC (System on Chip) technology. This offers compatibility with previous hardware generations, but can also support other Ethernet 10/100/1000Mbps based applications due to a flexible hardware and software design with a customized FPGA MAC (media access controller), external time sync and hardware trigger I/O capability and an embedded LINUX-based onboard dual core CPU. A major goal for this new interface - also available as AXC-FDX-2 (XMC) and AMCX-FDX-2 (PMC) - was 'flexibility first'; in addition to AFDX®/ARINC664P7, it handles other Ethernet-based data communication standards up to 1Gbps.

In addition to its predecessor's rich set of field proven test and simulation features, 2 additional features have been introduced.

- 2 triple speed Ethernet (10/100/1000Mbps) interface ports with standard RJ-45 copper front end connectors support single or redundant configured AFDX®/ARINC664P7 links
- Built-in tapping function for inline traffic analysis

Support for IRIG-B synchronization and generator capability, Trigger I/O and Discrete I/O's are included. An onboard LINUX operating system is executed on one CPU of the dual core processor. The second core CPU implements the real time Bus Interface Unit communicating with a customized MAC Controller in the FPGA section.

Joachim Schuler, General Manager at AIM GmbH says:

"This new architecture offers a powerful and flexible platform for today's and future standard AFDX®/ARINC664P7 test and simulation tasks including support of the Boeing ARINC664P7 variant. The use of Ethernet based communications is growing in all areas including Industrial Automation, Railway, Automotive and of course Defense and Aerospace. With the XMC and PMC card variants of the APE-FDX-2, these new products are open to support further Ethernet based standards and positions AIM to maintain our market leadership".

The APE-FDX-2/AXC-FDX-2/AMCX-FDX-2 includes the driver software bundled into the price, supporting Windows, Linux and LabVIEW VI/LabVIEW RT.

The PBA.pro (Light or Full Version) Data Bus Test and Analysis Software is available as an option for Windows and Linux.

Optional EasyLOAD-615A Dataloading Software for Windows can be used for loading AFDX[®]/ARINC664P7 target End Systems or Switches.

