

## General Features

The AXI-PSI-16 is a 'C Sized' VXIbus module, providing simulation, monitoring, protocol testing and data selection of 8 Transmit (Tx) and 8 Receive (Rx) Serial Data Channels according to the PANAVIA interface standard specification.

The advanced hardware architecture provides powerful resources (processing performance and memory size) to guarantee fully concurrent availability of all specified PANAVIA Interface functions simultaneously on all Tx and Rx channels.

The 8 Transmit (Tx) Channels on the AXI-PSI-16 module acts as an autonomously operating data communication simulator, supporting a continuous transmission sequence with user definable data words.

The 8 Receive (Rx) channels on the AXI-PSI-16 module provides the PANAVIA standard decoding with unique on-board error detection, triggering and data selection capability.

The AXI-PSI-16 module is a "register-based device" and can be easily integrated into VXI Systems as an off-the-shelf module supported by an VXI **'plug&play'** driver software package. The AXI-PSI-16 also operates with the optional 'PANalyser' Databus Analyser software package for WINDOWS.

# AXI-PSI-16



**16 Channel  
PANAVIA Serial  
Interface Test  
& Simulation  
Module for  
VXIbus**

## PANAVIA Receiver

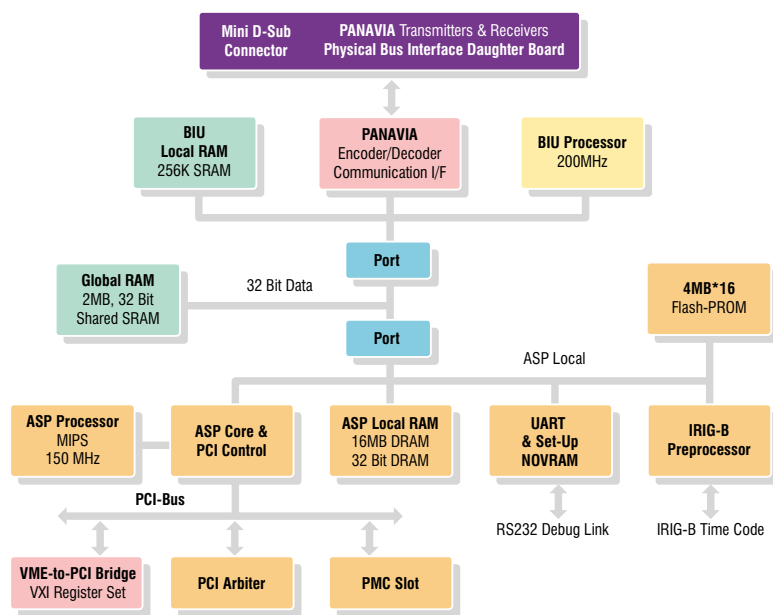
**Key Features of the 8 Receiver Channels are:**

- Decoding 16Bit Data & Status Words
- Tag orientated Data Storage or Chronological Data Storage
- Tag Selective Data Filtering
- Comprehensive Error Detection of: Control Bit Error, Framing Error, Bit Count Error, Sync Bit Error, Parity Error
- Programmable Interrupts & Trigger on: Definable Tag Receipt, Definable Data Word Receipt, Erroneous Data Receipt, Loss of Clock / Data
- IRIG- B Time Tagging on Received Data with a resolution of 1µsec

## PANAVIA Transmitter

**Key Features of the 8 Transmitter Channels are:**

- Encoding PANAVIA Protocol for Continuous Data & Clock Transmission
- Programmable Tag Sequence
- Selective Transmission Frequency of 64KHz or 62,5KHz
- Programmable Interrupts on: Definable Tag Transmissions, End of Transfer List
- Full Error Injection on each Tag Transfer: Bit Count, Parity, Framing, Sync Bit, Control Bit



**Avionics Databus Solutions**

# AXI-PSI-16

16 Channel PANAVIA  
Serial Interface  
Test & Simulation  
Module for VXIbus

## AIM Office Contacts:

### AIM GmbH

Sasbacher Str.2  
79111 Freiburg  
Germany  
Tel: +49 761 45 22 90  
Fax: +49 761 45 22 93 3  
email: sales@aim-online.com

Vertriebsbüro München  
Terofalstrasse 23 a  
80689 München  
Germany  
Tel: +49 89 70 92 92 92  
Fax: +49 89 70 92 92 94  
email: salesgermany@aim-online.com

### AIM UK

Cressex Enterprise Centre  
Lincoln Road  
High Wycombe  
Bucks, HP12 3RB  
UK  
Tel: +44 1494 446844  
Fax: +44 1494 449324  
email: salesuk@aim-online.com

### AIM USA

600 W. Reichmuth Rd.  
PO Box 338  
Valley, NE 68064  
USA  
Tel: 1-866-AIM-1553  
1-866-AIM-A429  
Fax: 1-402-359-5410  
email: salesusa@aim-online.com

## IRIG-B Time Code Decoder

An on-board IRIG-B time code decoder and generator allow synchronisation of PANAVIA bus traffic. Multiple AXI-PSI-16 modules can be synchronised using one common IRIG-B time source or the on-board time code generator of one AXI-PSI-16 modules as the reference for accurate correlation of data across multiple PANAVIA data streams.

## Application Support Processor

The 150 MHz ASP Application Support Processor provides unique on-board processing functions typically provided by host processing systems.

### Operational features include:

- Driver Software Execution on-board
- Control of RS232C debug Port for Firmware Updates
- User Application processing on-board

## Physical Bus Interface

A Physical Bus Interface daughter board (PBI) provides PANAVIA connection to the data channels via a Mini D-Sub Connector.

## Driver Software Support

With the AXI-PSI-16 module a VISA compatible VXI **'plug&play'** driver software package is included.

## Technical Data

**Sub-System Interface:** VMEbus Slave, Options D8, D16, A32 or A24 1 interrupt level used 'Interrupt Release on Acknowledge', Register based VXI device

**Processors:** 32 bit ARM 200MHz BIU Processor, 64 bit MIPS 150MHz ASP Processor

**Memory:** 2Mbyte Global RAM, 16 Mbyte ASP RAM

**Encoder/Decoder:** Eight PANAVIA Encoders and Eight Decoders with full Error Injection and Detection Capability

**Time Tagging:** 46 Bit absolute IRIG-B Time Code with 1µsec resolution

**Physical Bus Interface:** 8 Tx and 8 Rx PANAVIA Channels

**Connectors:** 80 pin Mini D-Sub Connector for Tx/Rx Channels  
9 way D-Sub for Trigger, Time Code I/O, RS232

**Dimensions:** C-Sized (6U) VXI Module, 340 mm x 233 mm x 30mm

**Operating Temp. Range:** Standard: 0°C...+45°C ambient  
Extended: -15°C...+60°C ambient

**Storage Temp. Range:** -40°C...+85°C ambient

**Humidity:** 0 to 95% non-condensing

## Ordering Information

### AXI-PSI-16

16 Channel PANAVIA Serial Interface for the VXIbus Including IRIG-B Time Code.  
2Mbyte Global RAM, 16Mbyte ASP RAM.

Note: For a 32 Channel PANAVIA Serial Interface, please contact your nearest AIM office of Representative

