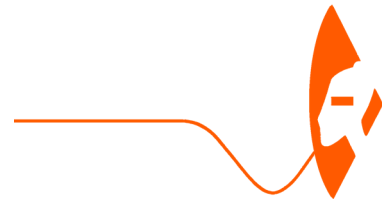


MAG_300/NBS-M

MAGALI STATION FOR DIGITAL BUS



DESCRIPTION

MAG_300/DBS-M is a compact and mobile station with all the necessary features to exchange data with different kinds of equipment communicating via digital buses such as MIL-STD-1553, ARINC-429, ARINC-664, DIGIBUS

MAG_300/DBS-M includes the digital buses MAGALI suite offering acquisition functions, accompanied by an extensive set of tools for data display and analysis, replay and data extraction.



KEY FEATURES

- All Major numerical buses supported: MIL-STD-1553, ARINC-429, ARINC-664, DIGIBUS...
- Advanced tools for analysis and fault detection
- IRIG-B time input for stamping and synchronisation
- Modular and open architecture
- Acquisition, control and data simulation
- Network architecture option for remote control or distribution
- From Compact format to rackable installation
- Real time and post-processing

SPECIFICATIONS

CONTROLLER

Model	17,3", 16:9 light Display
5", 1920 * 1080	Keyboard with integrated Touchpad
Power Supply	ATX Power Supply 250W
Accessories	Caddy Trolley
Chipset	Intel QM57
CPU Speed	Intel i7-610E, 2*Core, 2.53 GHz
PCI Slots	2 PCI Slot in full length or 1xPCI, 1 PCIe
I./O	4*USB, 1*RS232, 1*D-Sub VGA, 1*Firewire, TVOUT 1*10/100, 1/Gb LAN
RAM	4GB DDR3 (max. 8 GB)
Hard Drive	250GB, IDE, 2,5" + 2*removable Rack for SATA 2,5 Hard Drive
VGA	on board
DVD R/W	Slim DVD
Operation System	Windows 7 32-bit
Dimension ca.	314 H x 416 W x 110 mm D / 7.4 Kgs
Options	Blue Ray DVD, Touch Screen

MIL-STD-1553

The MIL-STD-1553 option offers full function Test, Simulation, Monitoring and databus analyser functions for MIL-STD-1553A/B applications. It provides an interface for 1, 2 or 4 dual redundant bus streams. It is designed to be installed on either a carrier board to buses like standard PCI/PCIe, VME/VPX or cPCIe or on an embedded host computer. An onboard IRIG-B time encoder/ decoder is included with sinusoidal output and 'free wheeling' mode for time tag synchronisation on system level using one or more 1553 modules.

- Real time Bus Controller functions on each independent, dual redundant MIL-STD-1553A/B Databus channel
- Simulation of up to 31 Remote Terminals including all sub-addresses on one or two MIL-STD-1553A/B buses
- Full bus monitoring and analysis with time tagging of all bus traffic to 1µsec resolution
- On board IRIG-B time code decoder and generator allowing synchronised time tagging of multiple MIL-STD-1553A/B streams
- Magali driver interface

System Interface	32 bits / 33 MHz PCI bus (Rev. 2.2) compliant
Processors:	Two 400 MHz RISC Processors
Memory	128 MB Global RAM (DDR-RAM), 2x 8 Mbit serial flash memory for BIU's, 64M-bit serial flash memory for LCA
Encoder/Decoder	Up to four MIL-STD-1553A/B Encoders/ Decoders with full error injection and detection
Time Tagging	Sinusoidal 46-bit absolute IRIG-B Time stamping with 1µs resolution
Trigger/ General Purpose Discretes	Full Trigger configuration on Rear-I/O PMC connector P14; one Trigger Input and Trigger Output for each channel available and two General Purpose Discrete I/O's (avionics level) on the front panel connector
Physical bus interface	Up to four MIL-STD-1553B Trapezoidal Transceivers; Transformer coupled Stubs, three Trigger-I/O's per channel and 8 General Purpose Discrete I/O's available at Rear -I/O connector: <ul style="list-style-type: none"> • Two 15-way (female) High Density D-Sub • Four independent MIL-STD-1553A/B channels • One Trigger Input and Output per channel • IRIG-B Time Code In/ Out • 3 x Standard PMC connectors • P11 and P12 for 32-bit PCI Bus • P14 for Rear-I/O
Size	149 x 74 mm Standard PMC format
Thermal Conduction Cooling	Enhanced thermal performance for Conduction Cooling in extended temperature range
Power Consumption	Min. Power: 2.8W (Idle Mode) ; Max. Power: 7.3W (100% Bus Operation)
Operating Temp. Range	Standard 0°C ...+70°C ambient ; Extended temperature range -40°C...+85°C
Storage Temp.	-40°C ...+ 85°C ambient
Humidity	0 to 95% non-condensing

ARINC-429

The ARINC-429 offers full function test, simulation, monitoring and databus analyser capabilities for ARINC-429 applications on up to 32 channels concurrently 4, 8 and 16 channels can be programmed by software for Receive (Rx) or Transmit (Tx) mode. The ARINC-429 board supports up to 8 discrete input signals and 8 discrete output signals monitored or generated. An on-board IRIG-B time code decoder and generator allows users to accurately synchronise to a common time source. The ARINC-429 board uses hardware design utilising multiple RISC processors which means that all channels can operate concurrently at ARINC429 high or low bit rates with the intelligence to process data in real time.

- 4, 8 and 16 channels for Receive (Rx) or Transmit (Tx) mode
- Real time monitoring of up to 32 ARINC-429 Receiver Channels concurrently controlled by an on-board RISC Processor.
- Transmission rates selectable for each channel at 12.5 Kbits/sec or 100 Kbits/sec
- 16 off Discrete Input/ Output ports, for monitoring and control of external application, with a wide range voltage characteristic.
- On-board 'IRIG-B' time code decoder and generator allowing synchronisation of ARINC-429 channels.
- Magali driver interface

System Interface	64 Bit / 33 MHz PCibus (Rev. 2.2) compliant
Processors	2 x 600 MHz RISC Processors
Memory	4 MByte Global RAM, 64 MByte ASP RAM
Encoder/Decoder	Up to 32 Encoder/Decoders with Error Injection and Detection
Time Tagging	46 Bit absolute IRIG-B Time, 1 µsec resolution
Physical bus interface	Up to 32 ARINC-429 Transmitters and 32 ARINC-429 line Receivers for a total of 32 Channels. The lower 16 channels are user programmable RX or TX, with the upper channels being fixed as RX or TX. On AMC429-4/8/16 Discretes and Triggers are included replacing the upper 16 ARINC -429 Channels
Connector	68 pin, Mini D-Sub. Signals are also available at Rear-I/O connector. 4 x Standard PMC Connectors. AMC429-CC Modules have Rear IO 64 Pin PMC Connector Only
Dimensions	149 x 74 mm Standard PMC Format

Power Consumption	11 Watts typical
Operating Temp. Range	Standard 0°C ...+70°C ambient Extended -40°C... +85°C ambient
Storage Temp	-40°C ...+ 85°C ambient

ARINC-664

High performance intelligent module offering full function test, simulation, monitoring and analyser functions for ARINC-664 (Avionics Full Duplex Switched Ethernet) networks. Its unique on board processing capability, memory resources, customised ARINC-664 MACs and IRIG-B time code decoder/ generator gives ARINC-664 users unparalleled features for the most demanding ARINC-664 applications. The ARINC-664 board provides two ARINC-664 ports being configured as two single or one dual redundant ports each implementing a 10/100Mbit Full Duplex Ethernet interface.

- Two advanced 600 MHz XSCALE Processors on board
- Designed for applications such as:
 - . Test & Verification of 'End Systems'
 - . 'Switch' Testing
 - . Monitoring of traffic between 'End Systems' & 'Switch'
 - . Inter Switch Traffic Analysis
 - . Multi Stream High Level System Integration
- Programmable Ports - Traffic Simulator and Receiver/Monitor Concurrently Synchronised Timing across Multiple Modules
- Magali driver interface

System Interface	PCIbus Master & Slave
Processors:	Two 32 bit, 600 MHz RISC Processors
Memory	64 MBytes Global RAM, 64 MBytes ASP RAM
Encoder/Decoder	Two ARINC-664 specific Ethernet MAC's Inter Frame Gap generation and measurement with 40 nsec resolution
Time Tagging	46 bit absolute IRIG-B Time with 1 µsec resolution Inter Frame Gap generation and measurement with 40 nsec resolution
Physical bus interface	Two full duplex ARINC-664 ports configurable to one dual-redundant ARINC-664 port
Connector	PCI back plane connector. • 2 x 8 way RJ45 connectors, one per ARINC-664 port • 1 x 15 way DSUB connector (female) for Time Code and Trigger I/O
Dimensions	175 x 107 mm "short length" Standard PCI Format
Power Consumption	Typical 7 Watts (operating)
Operating Temp. Range	Standard: 0°C...+55°C ambient. Extended: -15°C...+60°C ambient Extended -40°C... +85°C ambient
Storage Temp	-40°C ...+ 85°C ambient
Humidity	0 to 95% non-condensing

DIGIBUS

The Digibus supports a full implementation of the French military communication bus DIGIBUS. It fully complies with the DIGIBUS GAM-T101 standard. It implements a redundant bus. Digibus board can be used in ground applications such as test benches and maintenance tools or involved in embedded airborne systems. The board can support simultaneously the 3 main functions of Digibus :

- **Bus controller** : it rules the traffic on the bus by emitting data on the "procedure" communication line.
- **Terminal equipments** : it can act as one or several terminal equipments listening to the commands on procedure communication line and emitting or receiving the data of the data communication line.
- **Monitor (spy)** : it acquires and records the complete data traffic on the bus
 - . IRIG-B Datation under 1 µs resolution
 - . PCI 32-bit bus interface
 - . PMC Format conduction cooled
 - . Softwares available : XP, Linux , C library, Seven 32/64

Format	PMC "Conduction cooled" (CCPMC). Uses primary and secondary thermal interfaces. PCI interface conforms to PCI standard 2.1 (32 bits, 33 MHz with 3.3 or 5V signalling).
Digibus	Fully GAM-T-101 compliant (redundant bus mode)
I/O (all TTL)	Outputs : Top synchro: triggered on a given message ; General purpose output. Input : Top cycle: triggers a new cycle in controller operation ; One general purpose input.
IRIG B	Supports B122 format: 1 KHz base modulation Amplitude Modulation 1 time input, 1 time output, 1 PPS (heartbeat) output.
Connectors	PMC/Pn4 : Digibus, binary signals in unprotected TTL interface. Front panel : Honda HDR-E50 supports Digibus; IRIG_B, 1xRS422 & 2xTTL signals, cables should use Honda Connectors HDR-E50 M S G1

Power supply	3.3V, 5V, +12V, -12V. < 10W
MTBF	MIL HDBK 217 FN2, Method 1 case 1 28250 hours, 50°C
Temperature	Operating : -20..+ 75 °C, Non operating -40..+ 85°C
Vibrations	10-75 Hz increasing 6dB/octave 75 Hz-250 Hz W0=0.04 g/Hz 250 Kz-2000 Hz decreasing -3dN/octave

CAN

CAN board meet physical and electrical requirements for in vehicle automotive networks based on CAN. with its microprocessor, CAN board uses handle communications directly on the interface device. It provides a dedicated environment for reliable, high-performance CAN communications protocol stack execution. High-speed CAN interfaces communicate with devices using transfer rates up to 1 Mb/s. Synchronization is available for PXI, PCI, and PCMCIA-CAN devices.

- Hardware timing and synchronization with data acquisition, vision, and motion devices
- 100% bus load; for up to 1 Mb/s
- ISO 11898-compliant for standard (11-bit) and extended (29-bit) arbitration IDs
- Available in high-speed, low-speed/fault-tolerant, and single-wire versions
- Hardware timestamping
- Optical isolation up to 500 V

High Speed CAN	Communication with devices using transfer rates up to 1Mb/s (1 or 2 channels).
Low Speed/ fault Tolerant CAN	Communication with devices using transfer rates up to 125 kb/s (1 or 2 channels)
Single Wire CAN	Communication with devices at rates up to 33.3 kb/s (88.3 kb/s in high-speed mode), (1 or 2 channels)
Software-Selectable CAN	Configurable for high-speed, low-speed/fault-tolerant, or single-wire CAN
Arbitration IDs	Standard : 11-bit, Extended :29-bit
Operating Systems	Windows 2000/NT/XP/Me/98, LabVIEW Real-Time
Compatible software	LabVIEW, LabWindows/CVI, C/C++, Visual Basic 6
Application Software (included)	Bus monitor utility
Dimensions	PCI : 20.7 by 11.18 cm, PXI : 16.0 by 10.0 cm, PCMCIA :Type II PC Card
I/O Connections	PCI and PXI : DB9 male per channel, PCMCIA : DB9 male and Combicon-style pluggable screw terminals
Ambient temperature	0 to 55 °C
Relative humidity	5 to 95%, non-condensing
Noise Emission	PCI, PXI, and PCMCIA : FCC Class A Verified

ORDERING INFORMATION

MAG-300/A_1553/1	1x1553 stream - Dual redundant / BC, Multi RT simulator with Mailbox monitor and Chronological monitor
MAG-300/A_1553/2	2x1553 stream - Dual redundant / BC, Multi RT simulator with Mailbox monitor and Chronological monitor
MAG-300/A_1553/4	4x1553 stream - Dual redundant / BC, Multi RT simulator with Mailbox monitor and Chronological monitor
MAG-300/A_1553/USB/1	1x1553 stream - Dual redundant / BC, Multi RT simulator with Mailbox monitor and Chronological monitor - USB interface
MAG-300/A_1553/USB/2	2x1553 stream - Dual redundant / BC, Multi RT simulator with Mailbox monitor and Chronological monitor - USB interface
MAG-300/A_A429/4	4 ARINC-429 channels interface
MAG-300/A_A429/8	8 ARINC-429 channels interface
MAG-300/A_A429/16	16 ARINC-429 channels interface
MAG-300/A_A664/2	2 ARINC-664 ports—IRIG-B input time
MAG-300/A_DIGIBUS/PCI/2	Digibus dual stream - PCI format
MAG-300/A_CA/1	1 channel interface High Speed CAN - Low Speed/ fault Tolerant CAN - Single Wire CAN
MAG-300/A_CA/2	2 channels High Speed CAN - Low Speed/ fault Tolerant CAN - Single Wire CAN

Specifications are subject to change.
Please, verify the latest specifications prior order.

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