JANUS-MM-LP PC/104 & PC/104-Plus dual/quad CAN modules with isolation

DIAMOND SYSTEMS
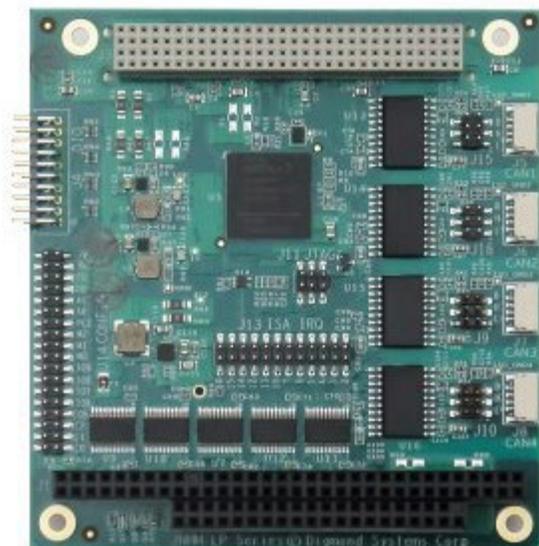
Janus-MM-4LP Quad CAN PC/104-Plus

Janus-MM-2LP Dual CAN PC/104-Plus

FEATURES

2 or 4 CAN 2.0B ports

Data rates up to 1Mbps

Supports standard (11-bit identifier) and extended (29-bit identifier) frames

Expanded TX and RX message queues for enhance performance

16 8-byte transmit message queues

31 8-byte receive message queues

16 receive filters

Galvanically isolated transceivers

500V port-to-host and port-to-port isolation

Jumper selectable biased split termination for improved noise reduction

16 digital I/O lines

Latching connectors for increased ruggedness

PCI and ISA bus interfaces

Basic CAN driver included with APIs and monitor program

Supports Linux Ubuntu 12.04LTS and Windows Embedded 7

PC/104-*Plus* form factor:
3.55" x 3.775" (90mm x 96mm)

Extremely rugged -40ºC to +85ºC operation

MIL-STD-202G shock and vibration compatible

Janus-MM-2L Dual CAN PC/104

◆ Description

The Janus-MM-4LP-XT family of I/O modules offers two or four opto-isolated CANbus 2.0B ports plus 16 digital I/O lines. Models are available in both the PC/104-Plus and PC/104 form factors. An FGPA core houses the CAN controller logic and digital I/O logic providing data rates up to 1Mbps. Each CAN port supports standard and extended frames as well as expanded TX and RX message queues for enhanced performance. Each port has its own combination isolator and transceiver chip.

Janus-MM-4LP-XT fits a wide variety of rugged and on-vehicle embedded serial I/O application needs. It was designed with harsh applications in mind including latching connectors to further improve reliability. Extended temperature operation of -40°C to +85°C is tested and guaranteed. The module is compatible with MIL-STD-202G shock and vibration specifications.
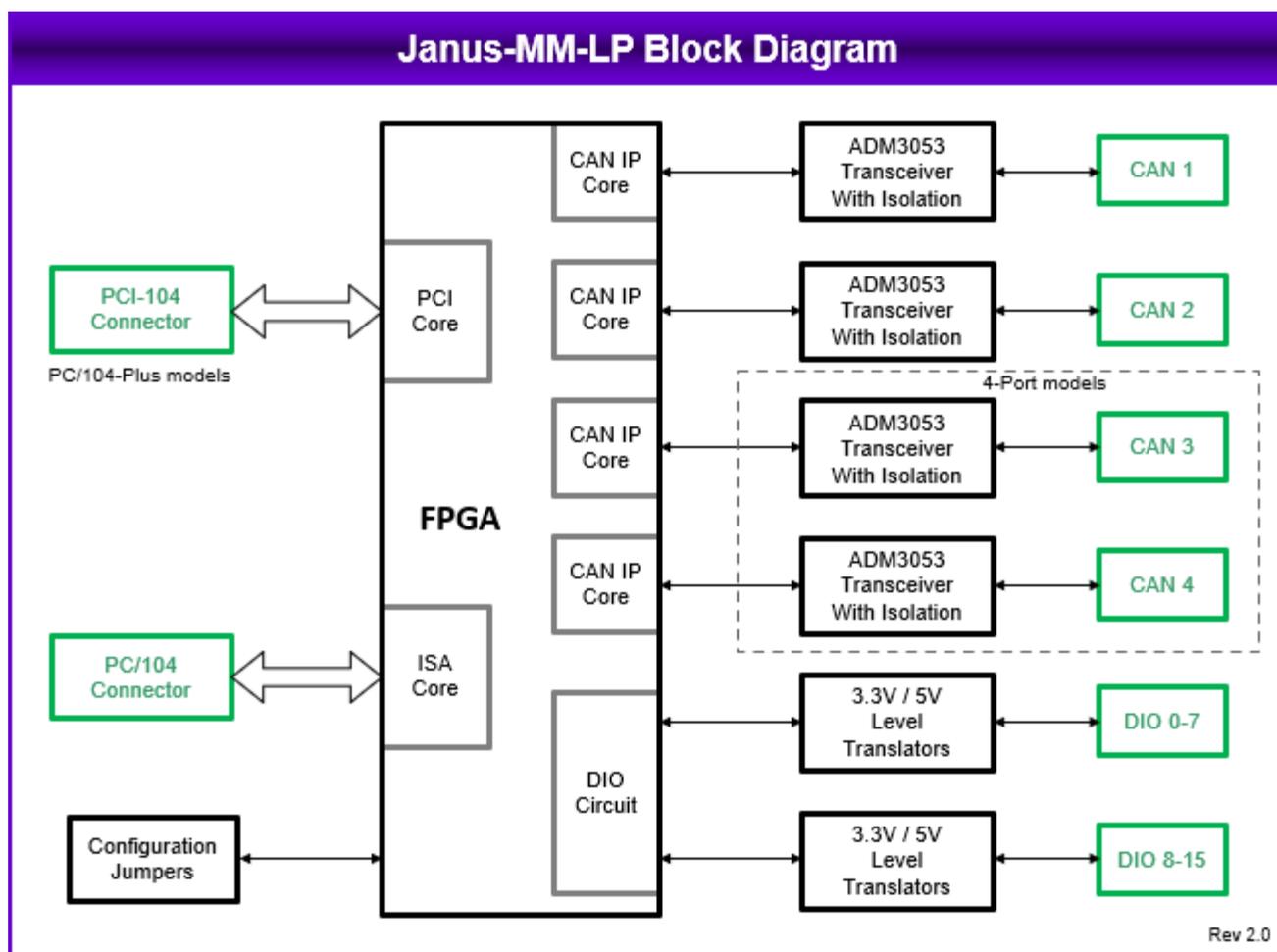
◆ Software
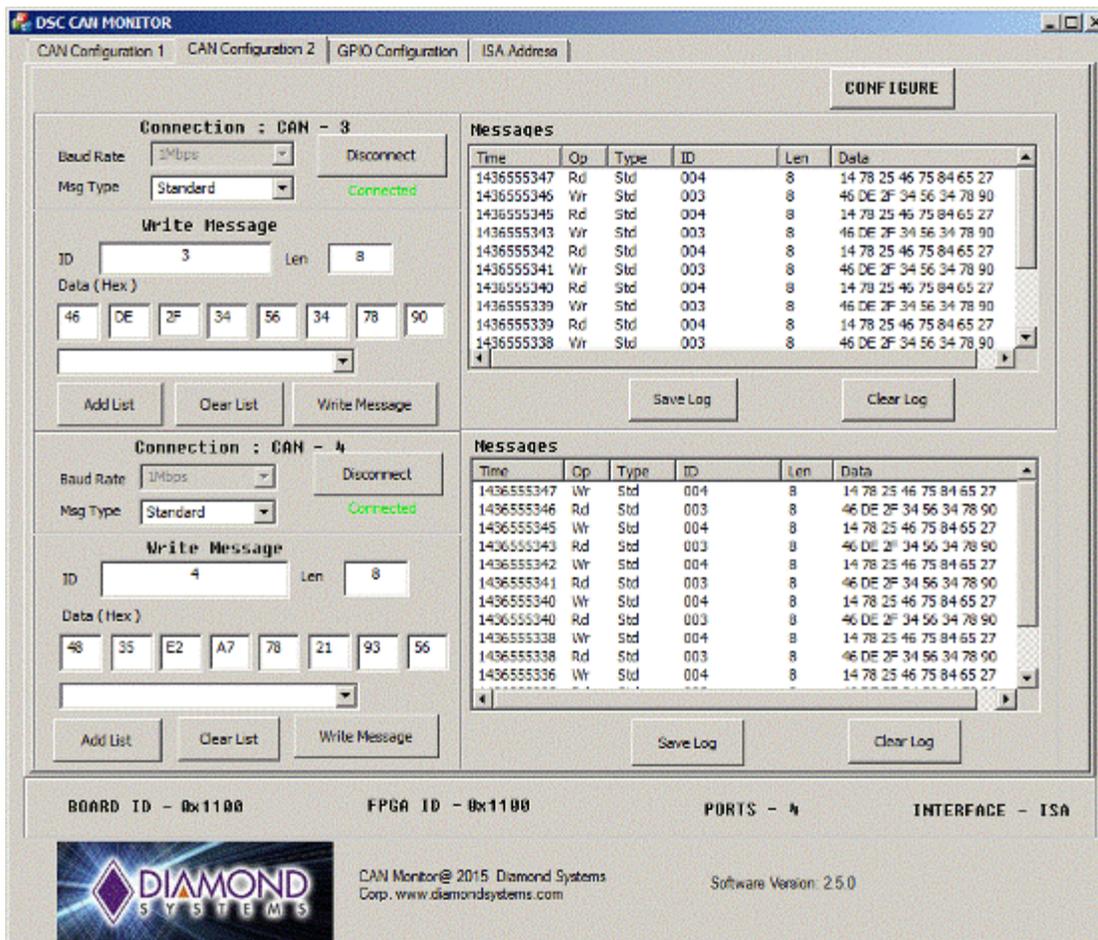
◆ I/O Cables

Diamond Systems offers cables for use with the Janus-MM-4LP-XT family of PC/104-*Plus* CANbus modules. Please refer to the table below for the available cables.

Cable	Description
6981164	20-pin, 12 inch digital I/O cable, 1 per board
6981182	CANbus 2.0 cable, 1 per CAN port

◆ System Block Diagram

◆ Specifications

CAN Circuit	
Number of CAN ports	2 or 4 CANbus 2.0B
Data rates	Up to 1Mbps
Controller	FPGA based
Transceiver	ADM3053 isolation + transceiver
Isolation	500V port-to-port and port-to-host
Frames	Standard 11-bit identifier Extended 29-bit identifier
Message queues	Expanded TX and RX message queues 16 8-byte transmit message queues 31 8-byte receive message queues
Receive filters	16
Termination	Jumper selectable biased split termination
Digital I/O	
Number of lines	16 programmable DIO lines arranged in 2 8-bit ports
Logic levels	3.3V or 5V, jumper selectable
Pull-up/pull-down	Jumper selectable
Direction control	Software programmable
General	
Host interface	PCI or ISA, self selecting
Connectors	Latching connectors for increased ruggedness

Input power	+5VDC ±5%
Power consumption	tbd W at 5VDC
Operating System support	Windows Embedded Standard 7 Linux Ubuntu 12.04LTS
Operating temperature	-40ºC to +85℃ (-40ºF to +185℉)
Operating humidity	5% to 95% non-condensing
Shock	MIL-STD-202G compatible
Vibraion	MIL-STD-202G compatible
MTBF	tbd hours at 20℃
Form Factor	PC/104-Plus: 3.55" x 3.775" (90mm x 96mm)
Weight	2.5oz (71g)
RoHS	Compliant

◆ Models and Accessories

Janus-MM-LP

available models:		
JNMM-4LP-XT	Quad isolated CAN port PC/104-Plus Module with 16 Digital I/O	Available
JNMM-4L-XT	Quad isolated CAN port PC/104 Module with 16 Digital I/O	Available
JNMM-2LP-XT	Dual isolated CAN port PC/104-Plus Module with 16 Digital I/O	Available
JNMM-2L-XT	Dual isolated CAN port PC/104 Module with 16 Digital I/O	Available

Please login or signup for an online quote request.

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