

# LSIOA01 IO adapter module

Gigabit Ethernet 1000BASE-T Specification compliance

## ■ Summary



- \* Major function : Giga-bit Ethernet-LVDS communication bridge
- \* Module ambient temperature : -5 to 60°C

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### ■ Specifications

ITEM		SPECIFICATION
Function		I/O module communication (LVDS) Giga-bit Ethernet ring communication
Communication rate (LVDS)		100Mbps
Number of D-Ring addressing node		Maximum 96 node
EEPROM		2kbit (For initial setting information of MAC address)
Ethernet interface	For D-Ring	1000BASE-T :2
User interface		Micro SD card :1 Control/standby switch :1 Reset switch :1 USB mini-B :1
Controller		Xilinx Spartan6 XC6SLX100
Self-diagnostic functions		Clock abnormal check CRC check (FPGA) Memory check Power voltage check Configuration check
Data check method		CRC32
Indicator		4 : PWR(Power) / STS(Status) / MOD(Mode) / ACC(Access)
Hot swap		Possible
Power supply		DC 24V ±20% (The voltage supplied from the backplane)
Environmental conditions	Module ambient temperature	(Operating) -5 to 60°C (Storage) -40 to 85°C
	Module ambient humidity	10 to 95% RH or less (No condensation)
Vibration		3.5mm @5 to 8.4Hz 1G @8.4 to 150Hz
Shock		15G 11ms 0.5J ±0.04J
Current consumption		Less than 305mA
Weight		0.24kg
Dimensions		112mmD x 117mmH x 46mmW (Except projection)
Standard/Directive		IEC61131-2-2007, RoHS

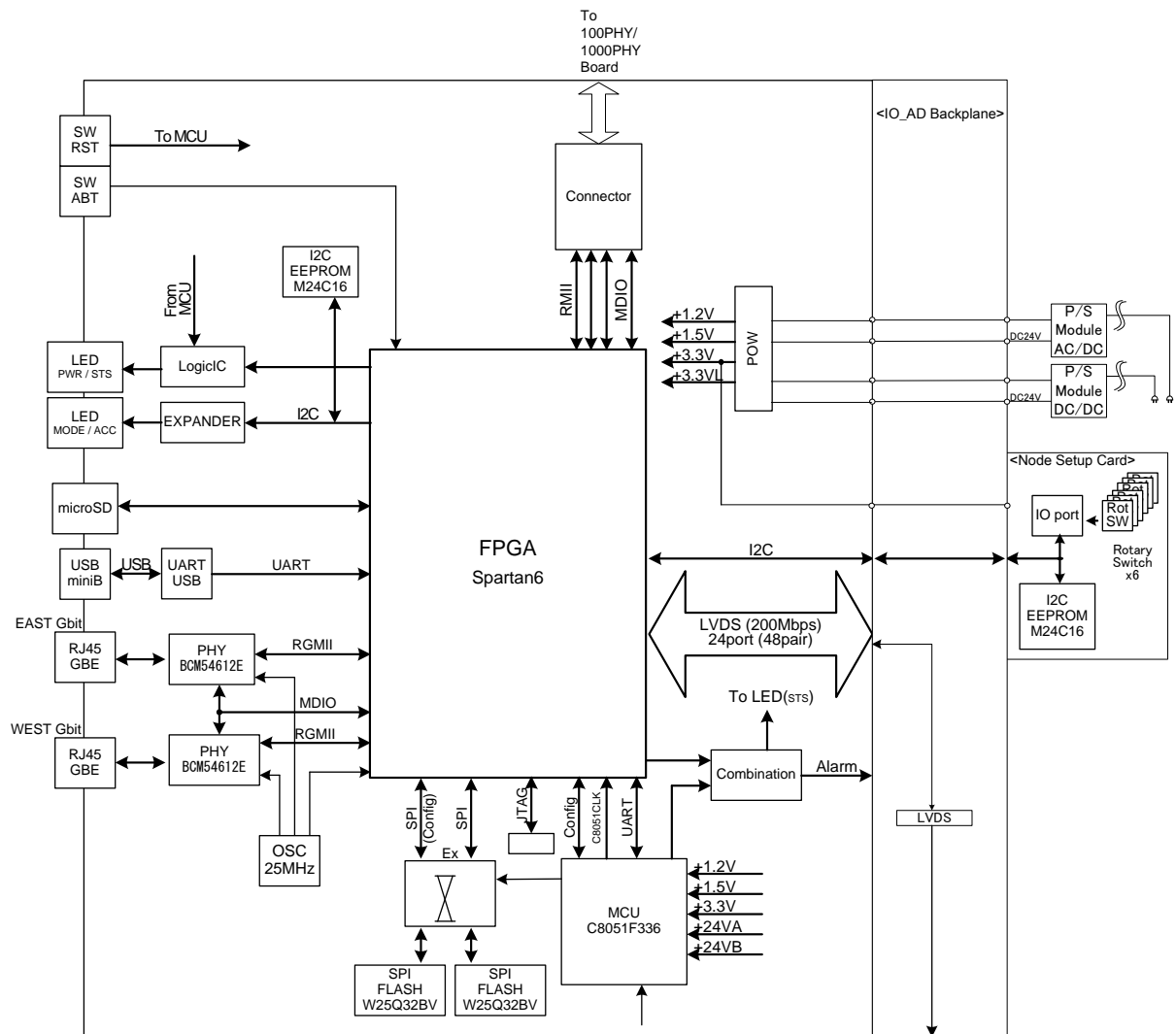
\*About compliant module type

For compliant modules of this product, please refer to “Compliant backplane list (CGS-S9901-E-XX)”.

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## ■ Block diagram



- |        |   |   |
|--------|---|---|
| P/S    | : | Power Supply  |
| IO_AD  | : | Input/Output Adapter                                |
| LVDS   | : | Low Voltage Differential Signaling                  |
| FPGA   | : | Field Programmable Gate Array                       |
| MCU    | : | Micro controller Unit                               |
| Flash  | : | Flash memory  |
| CLK    | : | Clock Oscillator                                    |
| OSC    | : | Oscillator  |
| RST    | : | Reset   |
| LED    | : | Light Emitting Diode                                |
| ABO    | : | Abort   |
| PWR    | : | Power   |
| STS    | : | Status  |
| GBE    | : | Giga bit Ether                                      |
| UART   | : | Universal Asynchronous Receiver Transmitter         |
| EEPROM | : | Electrically Erasable Programmable Read-Only Memory |
| SPI    | : | Serial Peripheral Interface                         |
| DDR3   | : | Double Data Rate3                                   |
| I2C    | : | Inter-Integrated Circuit                            |
| JTAG   | : | Joint Test Action Group                             |

When using, please read the instruction manual attached to the product carefully and use it properly.

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