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Linear Computing Inc.

progressive design

VSC4436 – Industrial Base Board for Verdin Module

Preliminary Specifications

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VSC-4436 is a carrier board for the Toradex Verdin module designed for applications in Automation, Robotics, Test and Measurement, Remote Monitoring and other uses where reliable operation in industrial environments is a must.

Specifications

Power:

- DC 9 to 30V

Analog Inputs:

- 12 single-ended or 6 differential inputs
- Absolute value of measured signals must be within -1V to 31V referenced to Gnd pin on input connector
- Automatic Offset Canceling
- 22 Voltage ranges from $\pm 32\text{mV}$ to $\pm 32\text{V}$
- Built-in shunts to convert voltage inputs into 0-25mA current inputs
- 16 bit ADC, 8 to 860 samples per second
- Typical measurement error on 32V range: $\pm 3\text{mV}$ (0.01 % FS) at 25DegC, 8sps

Connectivity:

- 2x 10/100/1000 Mbit Ethernet
- 2x USB 2.0
- 2x RS-232
- 2x RS-485
- 2x CAN-FD up to 8Mbps
- Optional LTE Cellular modem using miniPCIe card

Multimedia:

- 1x HDMI connected to module DSI port
- 1x HDMI connected to module HDMI port (some modules do not include this functionality)

Other Features:

- Micro SD card holder or on-board 32 GB eMMC
- EEPROM 2Kbit
- RTC
- On-board Cortex-M7 microcontroller running at 480MHz
- Built-in supercapacitor power backup for minimum 60 seconds runtime
- 400W ESD protection for all field signals
- Screw-locking connectors for field signals
- Internal diagnostics of all power supplies

Mechanical Features:

- Temperature range -40 to 85 DegC
- Size 185x110 mm
- Optional sheet metal enclosure with DIN rail mount