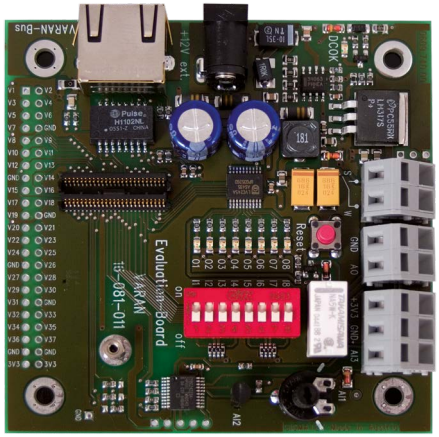
VARAN Demo Board
VEB 021



The VARAN VEB 021 demo board provides VARAN users and sensor/actuator manufactures with simple hardware so that they can implement this bus system in their products quickly and easily.

The VEB 011 or VEB 012 client board is simply connected to the demo board and the VARAN bus to the RJ45 socket.

Digital Outputs

Number of outputs	8
Output to connect	yellow LED per output
Supply voltage LEDs	+3V3
Output current	typically 3 mA per output

Relay Output (for signal switch)

Number	1
Relay type	1x converter
Relays	NA-5W-K
Power supply	+5 V/typically 30 mA
Minimum switch current	10 mA
Switching time	maximum 10 ms
Switching range	4 V-6 V
Switching power	0.5 A/30 V DC

Digital Inputs

Number	8
Input type	switched via DIP switch
Input voltage	typically + 3V3
Input current	typically 1 mA
Status Displays	no

Controller for Analog I/Os

Controller	PSoC CY8C24223A
Clock speed	24 MHz
Storage (On-Board)	4-kbyte Flash 256 bytes SRAM
Communication	via I²C–interface
Software requirements	the analog I/Os are read/written via the I²C bus

Number of Inputs

Number	3
Resolution	12-bit
Measurement range	0 ... +3.3 V
Reference voltage for AI3	+3.3 V
Sensor type at AI2	KTY10-6
Analog measurement precision	±0.2 %

Analog Output

Number	1
Output voltage	0 ... +3.3 V
Resolution	6-bit
Analog channel accuracy	±1 %
Maximum output current	20 mA

Electrical Requirements

Supply voltage	10-30 V DC	
Supply of external power supply	+12 V for internal supply (optional)	
Voltage supply from C-DIAS bus	+24 V for internal supplies	
Data Exchange on the VARAN Bus (+24 V power supply)	typically 70 mA	maximum 100 mA
Current consumption of the external supply (+12 V supply)	typically 140 mA	maximum 200 mA
Status display	Power LED	

Article Number and Miscellaneous

Article number	16-081-021
Hardware version	1.x

Notes