SBR 0981

The Chameleon Converter II

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The Chameleon converter II:

Concept:

The Chameleon converter II is a one-fits-all protocol conversion PCB that is designed to host one standard software application which will contain a number of functions.
The actual function of the converter is selected by a DIP switch.
The hardware it self is a standard product which is available in one versions including Wiegand (In & Out), RS232 or. RS485 (Selectable) and USB.

Hardware:

Inputs:
Three digital inputs which are active low – These inputs are suitable for connections to wiegand or clock/data type inteface.
The input's has built in pull up resistors (2k2).

Outputs:
Three digital outputs which are active low – These inputs are suitable for connections to equipment that is design to receive data from wiegand or clock/data type devices.
The output's has built in pull up resistors (2k2).
The board also include a LED for signaling status of the application.

Serial:
Either half-duplex RS 485 interface, with termination resistor on board or full-duplex RS232 – Terminals are shared with interface type selected by a switch (Jumper).
A USB 2.0 device interface is also available for configuration & firmware update or as a regular serial interface for data communication.

Programming Interface:

The programming interface is based upon the Microchip ® in circuit programming system and the physical connection is made directly one the designated PCB pads.

Power supply:

The internal power supply will accept an input voltage of 8 to 30 V DC and provide power for I/O and Micro Controller.
The internal power supply has a 12V 100mA output for powering low voltage card readers etc. – Utilization of this output requires an input voltage of minimum 15 V.

Micro controller:

The micro controller is a Microchip ® Flash type, ICSP and standard I/O.

Software:

I/O handling:

Inputs are handled by the core interrupt routine that also services the USB and serial port.
Outputs will be serviced by the application on a timer controlled basis.

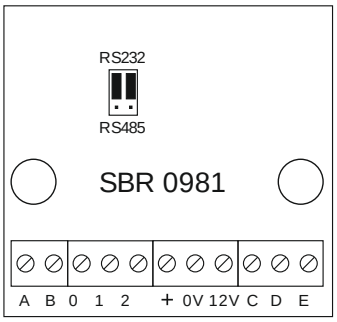
Application:

The DIL switch selects the functionality of the converter and the correct part of the core program is executed.

Functions:

Function	DIP1	DIP2	DIP3	DIP4
Self test application (For manufacturing).	Off	Off	Off	Off
Application 1.	On	Off	Off	-
Application 2.	Off	On	Off	-
Application 3.	On	On	Off	-
Application 4.	Off	On	On	-
Application 5.	On	Off	On	-
Application 6.	Off	On	On	-
Application 7.	On	On	On	-
Boot loader mode	Off	Off	Off	On

Drawings:



A – RS485 interface ‘A’ terminal / RS232 Tx (Output)
B – RS485 interface ‘B’ terminal / RS232 Rx (Input)
0 – Data or Wiegand ‘0’ output
1 – Clock or Wiegand ‘1’ output
2 – Card Present output
\+ – Power supply input (+)
0V – Power supply input (-)
12V – 12V output
C – Clock or Wiegand ‘1’ input
D – Data or Wiegand ‘0’ input
E – Card Present input

Type B - USB Device interface (USB miniB)

Enclosure:
The circuit board fits inside the series of security terminal boxes that is made with 48 mm spacing on the lid screws, 11 mm lid support and with medium to long length.