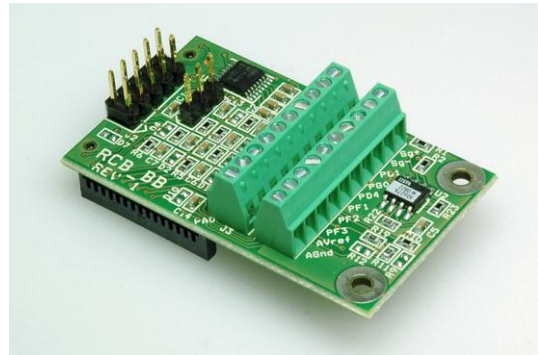# RCB Breakout Board
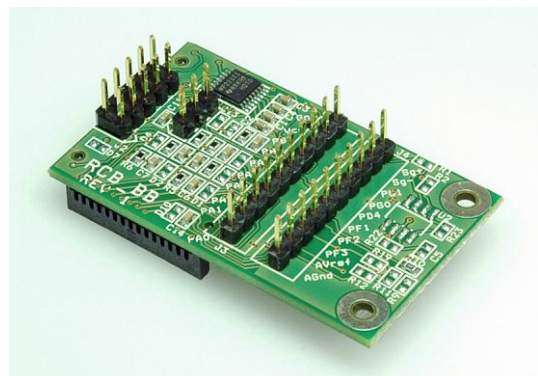# RCB Breakout Board Light
Datasheet

- The RCB Breakout Board is a general purpose I/O board to interface all types of Radio Controller Boards with custom peripheral hardware.

- Screw terminals and standard pin connectors allow the access to the most important ports of the connected Radio Controller Board.

- For direct PC-communication the board provides a RS232 transceiver which can be disabled for low-power applications. The necessary adapter cable is available as accessory.

- The board is powered by the batteries of the RCB, thus no separate power supply is required.

- The GPIO connections feature a simple signal conditioning and protection circuit.

- For precise analog measurements an on-board instrumentation amplifier is available.

- The RCB Breakout Board Light is a modified, low cost option with full functionality.

RCB Breakout Board

RCB Breakout Board Light

Technical Data

Dimensions:	50 x 30 x 16 mm incl. connector
Operating temperature:	5°C to +55°C without condensation
Storage temperature:	-10°C to +70°C
Interfaces:	1x JTAG AVR (10 pin)
	1x RS232 (3 pin)
	2 x 10 Pin Screw terminal or
	2 x 10 Pin connector for:

- 9x digital inputs/outputs
- 2x digital Low-Side Switch
- 3x analog inputs
- 1x differential analog input with amplifier
- Analog reference voltage
- Analog ground
- Digital ground and Vcc

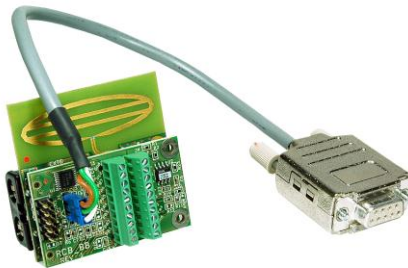|	
Board components:	RS232 Transceiver, Instrumentation amplifier (not for RCB Breakout Board Light), signal conditioning Input protection circuit
Radio modules:	All Radio Controller Boards (RCB) can be used.

Technical Data

Pin configuration

RS232 (X1):	1: RxD (USART1) 2: TxD (USART1) 3: GND	
JTAG (X2):	1: TCK 3: TDO 5: TMS 7: Vcc 9: TDI	2: GND 4: Vcc 6: Reset 8: n.c. 10: GND
Screw terminal or pin connector X3:	1: Vcc 3: GPIO (PortE 5) 5: Vcc 7: GPIO (PortD 7) 9: GPIO (PortB 7)	2: GPIO (PortE 4) 4: GND 6: GPIO (PortD 5) 8: GPIO (PortB 6) 10: GND
Screw terminal or pin connector X4:	1: AREF 3: AIN1 5: AIN3 7: Vcc 9: TxD (USART1)	2: AIN0 4: AIN2 6: AGND 8: RxD (USART1) 10: GND

Application with RCB230V3.2 and RS232 Adapter cable

Scope of delivery	**Order No.**
1 RCB Breakout Board	BN-025310
Or	
1 RCB Breakout Board Light	BN-025589

Accessories

RS232 Adapter cable	BN-026790
All Radio Controller Boards (RCBs)	see homepage
e.g.	
Radio Controller Board RCB230 V3.2	BN-025227
Radio Controller Board RCB231 V4.0.2	BN-025230
Radio Controller Board RCB212SMA V5.3.2	BN-025232

Order online: http://www.dresden-elektronik.de