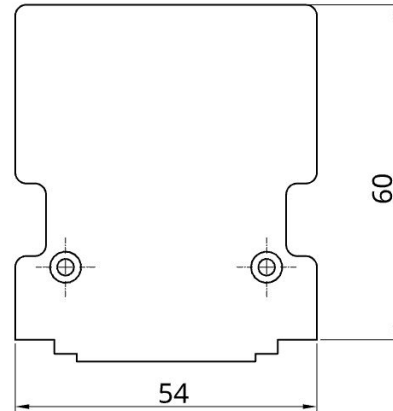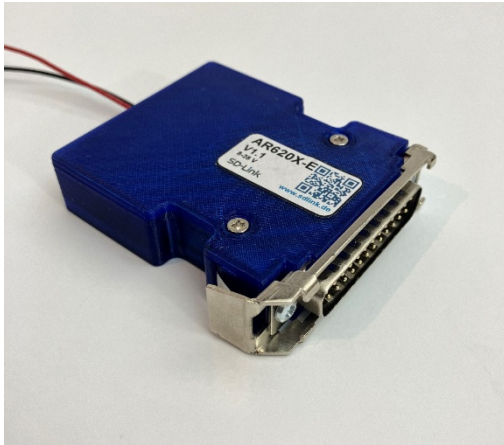# Becker AR6201 (AR620X) - Adapter BLE Bluetooth

SkyDemon (SD) EXPERIMENTAL

Bluetooth Low Energy Adapter (BLE) for Becker AR6201 / AR6203 / RT6201 VHF Transceiver (Aviation Radio) AR620X

The adapter was developed as an interface between a Becker AR6201 and the SkyDemon (SD) navigation software. It enables data transfer between the navigation software (SD) and the radio hardware via BLE <-> RS-232 <-> RS-422.

The adapter is simply plugged into the free J1 port and remains securely in place thanks to the Conec SlideLock system.

For power supply, only a connection to GND and Avionics power (8 - 28 V) is required. An internal mini-fuse (125 mA) is integrated into the housing. The power supply is protected against reverse polarity and short circuits.

No further mechanical work required!

⚠ Please note: This is a prototype for experimental use only!

1. Radio Configuration

A prerequisite for use is a Becker AR620X serial number (AR SN) > 3000.

The Becker AR6201 must be operated in Tandem Mode to use the BLE adapter. The following configuration steps are required (excerpt from the Becker installation manual):

2.7.1. Start Configuration Setup

Hold down the "MDE" key during power up to access the configuration setup. The "PASSWORD DIALOG" screen will appear.

PASSWORD

6435

Figure 2-17: "PASSWORD DIALOG"

Insert the 4-digit numerical code password "6435" by turning and pushing the "ROTARY ENCODER". Confirm by pressing the "STO" key. Now the first page of configuration setup shows the "DEVICE INFO" screen.

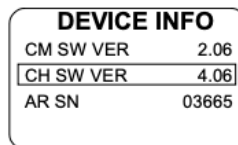| DEVICE INFO	
CM SW VER	2.06
CH SW VER	4.06
AR SN	03665

Figure 2-18: "DECIVE INFO"

2.7.2. Navigate between Pages

The configuration setup consists of several pages. Navigation within main pages:

Page Down (next page):   press "↕/SCN" or the "ROTARY ENCODER".
Page Up (previous page):   press "IC/SQL" key.

For navigation within the sub-pages of the configuration setup, use the "ROTARY ENCODER".

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BECKER
AVIONICS
*INTERNATIONAL*

Installation
Configuration Setup

2.7.3. Store Setup Data

The setting of any parameter is stored immediately after changing the parameter.

2.7.4. Leave Configuration Setup

Switch "OFF" the AR620X or RCU6201 to terminate the setup. All changes made up to this time will be stored automatically. No special action is required before leaving setup page.

CONFIGURATION	
☑ TANDEM	
☐ AUX INPUT	
☐ AUX AUTO MUTE	
☐ AUTO ISOL IN TX	
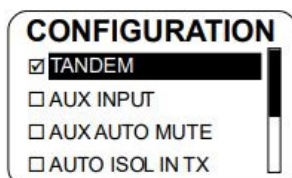
← Ensure that TANDEM mode is activated!

2. Connector Pinout

Connector P1 (System Interfaces)

Pin No.	Pin Name	I/O	Function
P1-1	SPK_HI	OUT	Speaker output signal
P1-2	HDPH1_A	OUT	Balanced output for headphone(s)1
P1-3	HDPH1_B	OUT	Balanced output for headphone(s)1
P1-4	AF_AUX_IN_HI	IN	Auxiliary audio input
P1-5	MIKE_DYN_HI	IN	Balanced input for dynamic microphone(s)
P1-6	MIKE_DYN_LO	IN	Balanced input for dynamic microphone(s)
P1-7	/IC	IN	Intercom key input; ACTIVE state - closed contact to GND
P1-8	MIKE_STD_LO	-	Standard microphone(s) low (ground) used for STD1, STD2 and STD3
P1-9	MIKE_STD2_HI	IN	Standard microphone 2 High
P1-10	ILL_LO	IN	Illumination low input
P1-11	P_SUPP	IN	Power supply (positive)
P1-12	P_SUPP	IN	Power supply (positive)
P1-13	P_SUPP_GND	-	Power supply ground
P1-14	SPK_LO	-	Speaker ground
P1-15	LINE_OUT	OUT	Linear audio output, unbalanced
P1-16	AGC_OUT	OUT	Receiver AGC output
P1-17	/PTT1	IN	Press To Talk key input1 ACTIVE state - closed contact to GND
P1-18	MIKE_STD1_HI	IN	Standard Microphone 1 High
P1-19	MIKE_STD3_HI	IN	Standard Microphone 3 High
P1-20	HDPH2_A	OUT	Balanced Output for headphone(s)2
P1-21	AF_AUX_IN_LO	IN	Auxiliary audio input low
P1-22	HDPH2_B	OUT	Balanced output for headphone(s)2
P1-23	ILL_HI	IN	Illumination high
P1-24	/PWR_EVAL	OUT	Power on monitor output
P1-25	P_SUPP_GND	-	Power supply ground

Connector J1 (Serial Interfaces and Discrete I/O's)

Pin No.	Pin Name	I/O	Function
J1-1	CPIN	-	Reserved coding pin
J1-2	TX2+	OUT	Auxiliary control interface
J1-3	RX2+	IN	Auxiliary Control Interface
J1-4	/SQL_EVAL	OUT	Squelch monitor output ACTIVE state - closed contact to GND
J1-5	/PTT2	IN	Press-To-Talk key input 2 ACTIVE state - closed contact to GND
J1-6	SHIELD_1	-	Secondary control & service interface SHIELD
J1-7	TX1+	OUT	Secondary control & service interface
J1-8	RX1+	IN	Secondary control & service interface
J1-9	TX2-	OUT	Auxiliary control interface
J1-10	RX2-	IN	Auxiliary control interface
J1-11	SHIELD_2	-	Auxiliary control interface SHIELD
J1-12	/EXT_SO	IN	External "Exchange" key Falling edge will activate frequency exchange
J1-13	/SRV_EN	IN	Service enable pin ACTIVE state - closed contact to GND
J1-14	TX1-	OUT	Secondary control & service interface
J1-15	RX1-	IN	Secondary control & service interface
J1-16	NC		not connected
J1-17	/SQL_SW	IN	"Squelch Force-OFF" input ACTIVE state - closed contact to GND
J1-18	NC		not connected
J1-19	NC		not connected
J1-20	/ISOL	IN	"ISOL" input ACTIVE state - closed contact to GND
J1-21	D_GND	-	Discrete lines ground
J1-22	D_GND	-	Discrete lines ground
J1-23	D_GND	-	Discrete lines ground
J1-24	/MIKE_SW	IN	Configuration selector CFG1 and CFG2
J1-25	/EXT_ON	IN	External Power ON input ACTIVE state - closed contact to GND

3. Contact Information

For issues, questions, feedback, or positive experiences, please contact::

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