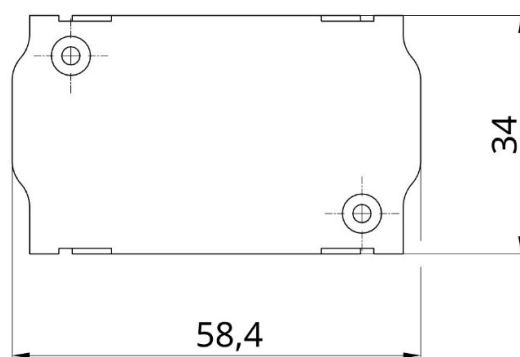# f.u.n.k.e ATR833 - BLE Bluetooth Dual Source Adapter

sky-map EXPERIMENTAL

The Bluetooth Low Energy adapter (BLE) for a f.u.n.k.e ATR833 VHF transceiver (aviation radio) is compatible with the following devices: **ATR833, ATR833S, ATR833A, ATR833-II, ATR833A-II.**

The adapter was originally developed for connection to the sky-map navigation software, but is now compatible with a variety of navigation apps that support frequency transmission. It implements the data transfer between the navigation software and the radio hardware (BLE $\leftrightarrow$ RS-232). The adapter simply plugs in between the existing wiring and the radio and is securely held in place on the housing thanks to the Molex Spring Lock system.

No additional power supply is required. The adapter can be operated with 12 V and 24 V onboard voltage. An internal, self-resetting fuse is integrated in the housing. The power supply is protected against reverse polarity and short-circuit proof.

The adapter also works when an EFIS is already connected to the radio.

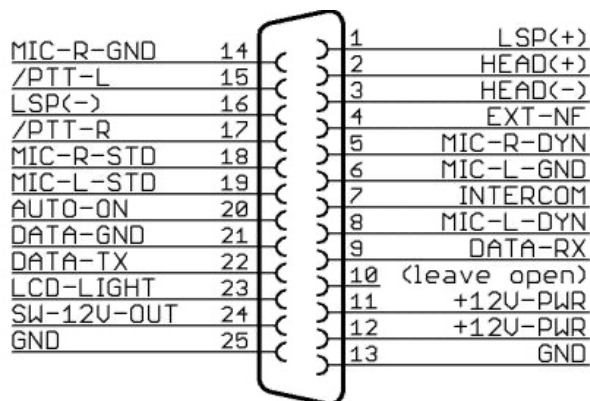**No additional electrical or mechanical work required!**

> **Important:** This is a prototype for experimental use only!

1   Radio Configuration

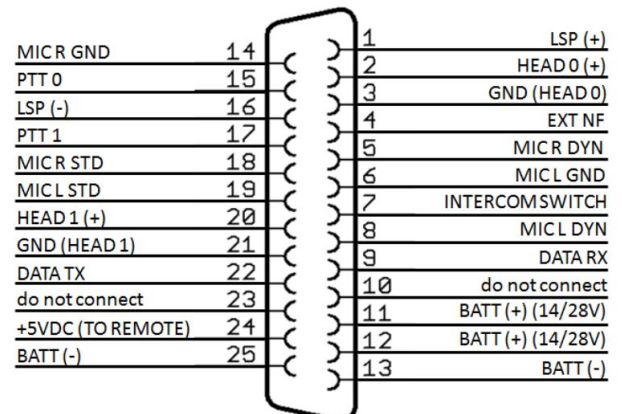No further configuration is required on the radio.

2   Connector Pin Assignment

This is an excerpt from the f.u.n.k.e installation manual:

4.7.2   Connector – Pin Allocation

Figure 1: Old version (ATR833)   Figure 2: New version (ATR833-II)

Pin	Names	Functionality
1	LSP(+)	Output external Loudspeaker Positive
2	HEAD-0 (+)	Output Headset-Speaker Positive
3	GND (HEAD-0)	Output Headset-Speaker Negative
4	EXT-NF	Input external Audio-Signal
5	MIC R DYN	Input Microphone Right Dynamic
6	MIC L GND	Input Microphone Left Ground
7	INTERCOM SWITCH	Intercom Activation Switch (connect to ground for Intercom activation)
8	MIC L DYN	Input Microphone Left Dynamic
9	DATA-RX	RS232 Receive (for Remote Control)

| 10	do not connect	Pin 10 is used by adapters for device identification
11	+14 / +28V-PWR	Input Power Supply +12V
12	+14 / +28V-PWR	Input Power Supply +12V
13	BATT (-)	Ground Side of Power Supply
14	MIC R GND	Input Microphone Right Ground
15	PTT-0	Push-to-Talk 0 (connect to ground for transmitting)
16	LSP(−)	Output external Loudspeaker Negative (Not identical to ground!)
17	PTT-1	Push-to-Talk 1 (connect to ground for transmitting)
18	MIC R STD	Input Microphone Right (Headset 1)
19	MIC L STD	Input Microphone Left (Headset 0)
20	HEAD 1 (+)	Output 1 Headset-Speaker Positive
21	GND (HEAD 1)	Output 1 Headset-Speaker Negative
22	DATA-TX	RS232 TX (for Remote Control)
23	N/A	do not connect
24	+5VDC OUT	5VDC Power Supply for Remote Control
25	BATT (-)	Ground Side of Power Supply

3   Configuration in sky-map

3.1   Prerequisites and Configuration in iOS
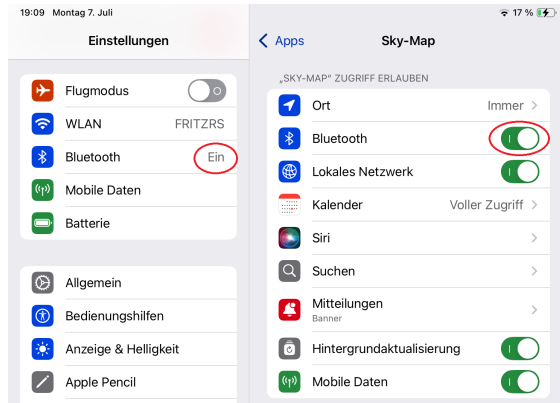
iOS Settings:

1. Bluetooth must be enabled in the iOS settings.

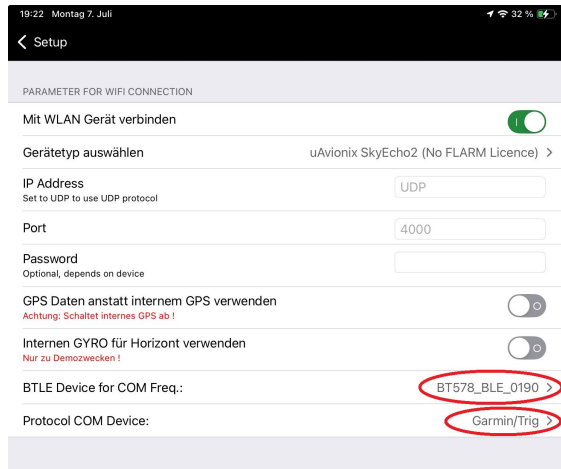2. Under *Apps/sky-map*, access to Bluetooth must be granted.

3.2   Prerequisites and Configuration in Android
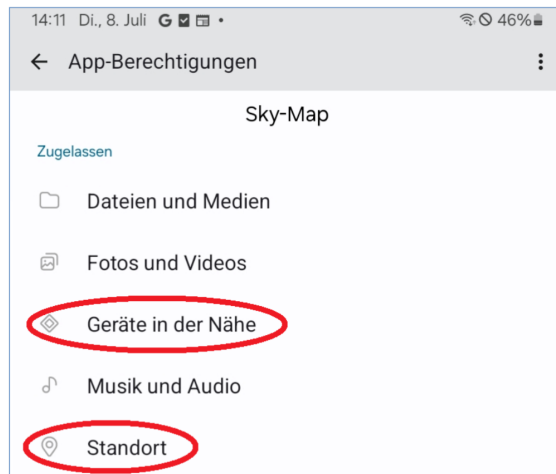
Android Settings:

1. Bluetooth must be enabled in the Android settings.

2. Under *Apps/sky-map*, access to **Nearby devices** and **Location** must be granted.

3.3 Establishing Connection with the Adapter

3. Turn on the radio with the adapter.

4. Open in sky-map:
Menü → Setup → Wireless Interface Setup

5. Select **SD-ATR833-DS** (if multiple are available).

6. Select the appropriate protocol for your radio:
Funke ATR833

7. Exit the setup.

At the next program start, sky-map will automatically reconnect to the last selected BTLE adapter.

> **Important:** For the automatic connection at program start to work, the radio and BTLE adapter must be turned on **before** sky-map is started.
> If this is not the case, the connection must be established manually by accessing the setup (see step 4).

4 Contact

For problems, questions, feedback, or positive responses,
please contact:

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