**openAir case** is a compact and rugged high-performance ADS-B receiver for mobile use and spontaneous setups.

It runs for 24h on embedded battery while serving surveillance data via Wi-Fi or LAN connections to multiple clients. The device provides raw or decoded ADS-B data on TCP/IP sockets and serves a web page showing a map with the current traffic situation.

openAir1090 case offers:

- Situational awareness on surrounding air traffic at low cost and with minimal installation effort

- ADS-B receiver with high dynamic range for monitoring of traffic in all altitudes and distances from own location

- Acts as Wi-Fi hotspot or connects into existing wired or wireless networks

- Optional internal LTE modem for data distribution

- Web application shows received traffic on a map with switchable modes (day/night)

- World-wide map background data stored on internal flash memory, no connection of clients to Internet required during operation

- Embedded GNSS receiver to indicate own location on map and to calculate distances

- Compact and high reliability, no moving parts, IP67/NEMA6 enclosure

- Receives with single antenna ADS-B on 1090 MHz and several general aviation and drone protocols on 868 MHz to provide the complete picture of surrounding air traffic

- Embedded MPPT charge controller allows direct connection of solar panel for 24/7 autonomous operation
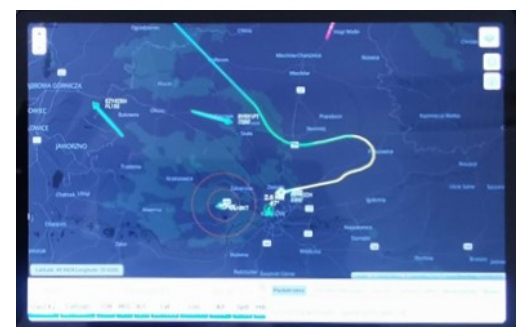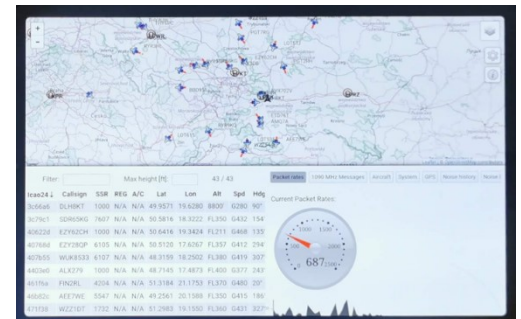
Technical Parameters

Power supply		
Power inputs	15-35VDC, 80-240VAC, allows direct connection of solar panel	
Power consumption	<7W when battery is fully charged <80W when battery is charging	
Battery capacity	150 Wh	Up to 24h runtime
Dimensions		
Type of enclosure	IP67 rated outdoor case	NEMA 6P
Enclosure dimensions	330 x 406 x 174	[mm]
Weight	6	[kg]
1090MHz Receiver Input		
Frequency	1090	[MHz]
Dynamic range	-95 to +10	[dBm]
Reception range	250	[NM]
868MHz Receiver Input		
General Aviation Protocols	FLARM, OGN, PilotAware, FANET, ADS-L	
Sensitivity	-110	[dBm]
GNSS receiver		
Constellations	GPS/QZSS, GLONASS, BeiDou, Galileo	
Sensitivity	-167dBm tracking	
Channels	72	
Network connection		
Wi-Fi	2.4/5GHz IEEE 802.11 b/g/n/ac	
Ethernet LAN	10/100/1000 Mbps Fast Ethernet	
Data protocols	HTTP, TCP/IP, JSON, ASTERIX	
Environmental specification		
Ambient temperature	-20 to 60	[°C]
Relative humidity	<99 non-condensing	[%]