XAero ADS-B Sensor

HIGHLIGHTS

- Highly integrated design
- Ultra compact device
- Very low power consumption
- Outdoor use in any climatic environment
- High performance in terms of range, detection and target processing
- Integrated Site Monitor
- Compatible with any ADS-B system

STATE-OF-THE-ART AUTOMATIC DEPENDENT SURVEILLANCE-BROADCAST SENSOR

becker-aero developed an ultra-compact, high performance ADS-B Sensor which is suitable for small and large ADS-B systems.

- All significant system components of the XAero ADS-B Sensor like site monitor, antenna, GPS are integrated in **ONE** device. There is only one interface for data and power. The unit is powered via Ethernet (PoE) and requires no RF-cabling.
- Due to its integrated design, small size and low weight the installation of the XAero sensor is both easy and flexible.
- The XAero ADS-B excels other sensors in range, detection performance and target processing.
- Its design allows for virtually maintenance-free operation - a replacement of sub-components (e.g. GPS) is not applicable.
- The XAero ADS-B sensor integrates seamlessly in existing as well as newly deployed systems by adhering to industry standards.
- Considering the technical key features, the XAero ADS-B Sensor is a very cost-efficient device in terms of manufacturing, installation, operation and maintenance.

Technical Data

Power	
Power Supply	PoE according to IEEE 802.3af class 3
Power Consumption	11 W max.
Cooling	Passive, no auxiliary cooling required
Decoder (ADS-B)	
Decoding	ED-102A (RTCA DO-260/A/B)
Error Correction	Configurable
Network Interface	
Interface	TCP/IP, UDP/IP, SNMP
IP-Address Configuration	Configurable static or dynamic IP address
Data Clients	Configurable to any required number, UDP unicast, UDP multicast, TCP
Network Time Synchronisation	NTP client and server
Configuration and Monitoring	SNMP V2, SSL encoding for setup
Data Encoding	ASTERIX CAT021 V0.23, V0.26, V1.4, V1.8, V2.1, V2.2, V2.3, V2.4, V2.5; CAT023 V1.2; CAT025 V1.1; CAT247 V1.2
Compliance	ED-129B, ED-153
System Performance	
Operational Range	250 NM min. (up to 300 NM)
Message Processing	Up to 3000 extended squitter messages
Target Load	Up to 1500 targets
Technical Data Receiver	
Frequency	1090 MHz
Attenuation at ± 25 MHz	⩾ 40 dB
Successful Message Reception Rate	⩾ 90% at -92 dBm ⩾ 15% at -95 dBm
Dynamic Range	> 75 dB, 80 dB typ
Polarisation	Vertical
Gain	3.0 dBi
Type	Dipol
Technical Data Site Monitor	**OPTIONAL**
Frequency	1090 MHz ± 1 MHz, ICAO Annex 10, Vol. IV
RF Output Power (EIRP)	Up to27 dBm, configurable 31.5 dB range (0.5 dB steps)
ICAO Address and ID	Configurable DF18
Squitter Rate	0.5 – 10 seconds
Environmental	ETSI EN300 019-2-6 Class 6.2 and 6.3
Ambient Temperature Range	-40° C up to +60° C
Ingress Protection	IP65
Mechanical Data	
Dimensions (WxHxD)	116 mm x 130 mm x 53 mm (excl. clamp and antennas) Height incl. antennas: 601 mm
Weight	1.2 kg