

Airborne Spectrum Monitoring

LS OBSERVER AMU-neo Enhancing area coverage and detection capabilities

With the AMU-neo, Colibrex and LS telcom further enhance the performances of the well-proven LS OBSERVER AMU. While still benefiting from the multitude of functionalities and user-friendliness of the CMS software (Central Monitoring Software) as well as the variable frequency ranges available, the AMU-neo offers longer flight times and the ability to fly in more critical weather conditions. The AMU-neo brings a level of flexibility never reached in the frequency monitoring world. Deploy a new network without the need of heavy and fixed infrastructure or simply extend your existing LS OBSERVER network!



Main Applications

Direction finding and geolocation: Observe the entire RF-Spectrum from the air to perform interference hunting or detect suspicious activities & potential threats such as:

- Illegal emitter or emitter with faulty parameters
- Unwanted emissions (jamming)
- Radio activity from neighboring countries

“Airborne RF drive testing” for coverage analysis or area/camp surveillance

Localization of highly directive emissions e.g. to monitor and locate satellite ground terminals

Inspection of microwave links

Antenna measurement (option)



Measurement Characteristics

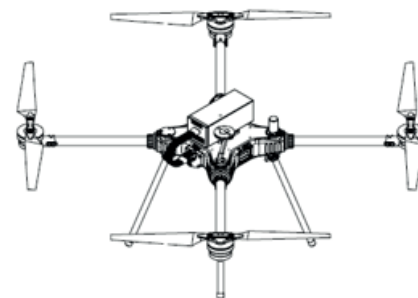
Model	AMU-106w	AMU-114w	AMU -132s / AMU-144s / AMU-150s
RF characteristics			
Frequency range (antenna capabilities) start at 80 MHz)	80 MHz to 6 GHz	80 MHz to 14,5 GHz	80 MHz to 32 / 44 / 50 GHz, or 6 GHz to 32 / 44 / 50 GHz with better sensitivity
Max. input level	-152 dBm/+20 dBm, 0 VDC		-140 dBm @ 1 GHz/ +20 dBm, 0 VDC
Instantaneous bandwidth	up to 27 MHz	up to 40 MHz	scan mode only

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Measurement Functionalities			
RF scanning	Yes		
Direction Finding (DF)	Yes - AoA calculation from 360° turn or direct determination with the optional DF-Antenna (700 MHz – 6GHz)		
Geolocation	Yes (triangulation of sequential DF measurements)		
Demodulation	Yes (FM, AM, DSB, USB, LSB, CW)	No	
IQ recording	Yes	No	

Benefit from the LS OBSERVER AMU-neo

Performances of the new COL-X4-neo drone platform: **NEW**

- Minimum flight time of 30 minutes with payload
- Robust design, capable of operating in adverse weather conditions
- Quick and easy assembly (e.g. with detachable arms), optimized for transport and deployment
- Configurable with various, state-of-the-art radio controllers
- Flexible configuration with various battery types and capacities



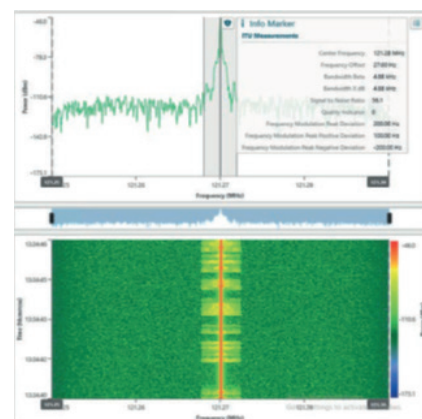
Fully integrated measurement payload:

- Interchangeable payloads available for 80 MHz up to 6 GHz, 14.5 GHz, 32 GHz, 44 GHz or 50 GHz
- Purpose-designed measuring antennas, mounted on a 2-way gimble to maintain the chosen polarization
- 7-elements drone-mounted DF antenna **NEW**
- Communication to the autopilot via an integrated MavLink router



Measurement capabilities of CMS Central Monitoring Software CMS :

- Modern and intuitive graphical user-interface with interactive measurement charts and maps
- Multitude of measurement configurations (scan and fixed frequency mode, demodulation channel power measurements, ...)
- ITU compliant signal parameter measurement
- Recording possibilities (spectrum, IQ, occupancy, statistical data)
- AI based signal classification



Highly versatile platform with scalable options and upgrade capabilities:

- Tethered kit enabling extended-duration monitoring operations
- Integrated multi-layer safety systems, including an optional emergency parachute
- Multi-role platform configurable for NavAidDrone operations or additional payloads, including inspection cameras



GEA