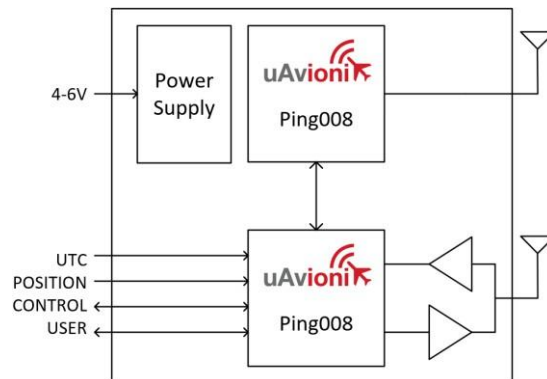## MicroLink BVLOS Data Link

MicroLink is an aviation grade, miniature, Beyond Visual Line Of Sight (BVLOS) data link radio specifically designed for long range, robust, Unmanned Aircraft Systems (UAS) telemetry data links. Ideal for size, weight, power and performance sensitive applications, MicroLink operates in the 902-928MHz ISM band where no FAA approval is needed.

MicroLink Radio Technology

- Dual radio architecture for true diversity
  - Path (spatial) diversity
  - Frequency diversity
  - Polarization gain
- Dynamic Medium and Multiple access, time and position synchronized, to support 100s of simultaneous links
  - Adaptive time and frequency spreading
- Global Positioning System (GPS) Coordinated Universal Time (UTC) link synchronization
- Status, integrity and health monitoring
- Environmental RTCA/DO-160G
- Software RTCA/DO-178C Level C
- Complex Hardware RTCA/DO-254 Level C
- FCC 47 CFR Part 15.247 ID 2AFFTC2XISM

Radio Specifications	
Band	902-928MHz ISM Band
Architecture	Dual Diversity Radios
Transmit Power	1W (4W EIRP)
Spreading	Code and Frequency
Bandwidth	200kHz
Receiver Sensitivity	
User Receiver	-118dBm
Control Receiver	-121dBm
Doppler Capture Range	±16kHz

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Fax: +972-3-9243385 | sales@hypertech.co.il | www.hypertech.co.il

Ground Radio System (GRS) – SkyStation

- All-Weather Network-Ready MicroLink GRS
- TCP and UDP Power Over Ethernet (POE) connectivity
- IP67 Grade Enclosure
- Dual Dipole Antennas
- Pole Mounting Kit

Specification	Value
Input Power	POE 13W Peak
Size	122x82x55mm
Weight	500 grams
Operating Temp	-45 to 70°C
Interfaces	
User	
Protocol	TCP or UDP
Control	
Protocol	TCP or UDP
Timing/Position	
UTC and Position	Internal
Environmental	
DO-160G	Temperature Cat B2
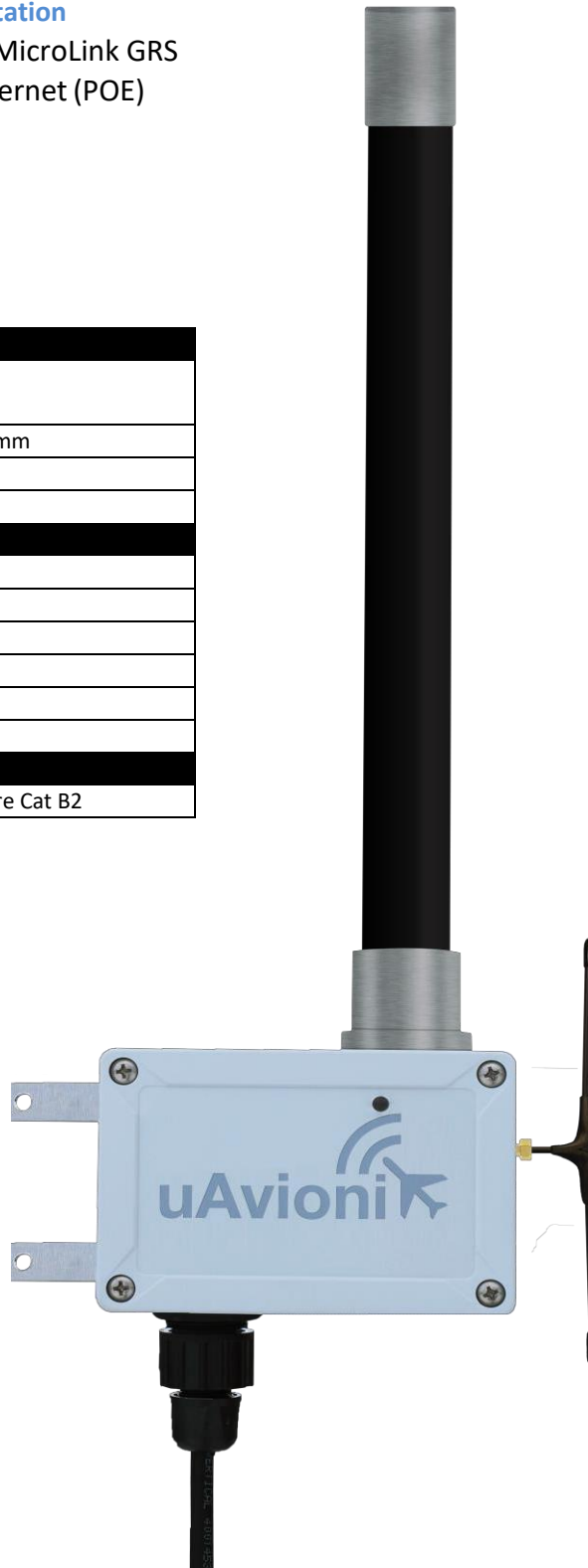
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Airborne Radio System (ARS)

- Transparent serial user data interface
- Plug and play with Ardupilot PixHawk autopilot
- Dual MMCX antenna connectors
- Supports NMEA/UBX GPS Sensors such as HERE2 and microFYX

Specification	Value
Input Power	4-6V 1.7W Peak
Size	31x26x9mm
Weight	16 grams
Operating Temp	-45 to 70°C
Interfaces	
User	
Data rate	57600bps
Protocol	Binary, Transparent
Control	
Data rate	115200bps
Protocol	UCP
Timing/Position	
UTC	1PPS Time Pulse
Position	UBX / NMEA 0183 115200bps
Environmental	
DO-160G	Temperature Cat B2

Mechanical Specification

Electrical Specification

USER Interface

Pin	Type	Physical	Port
1	5V	5V	
2	RXD	IN	Telem
3	TXD	OUT	Telem
4	RXD	IN	GPS
5	PPS	IN	1PPS
6	GND		

Timing/Position, Control Interface

Pin	Type	Physical	Port
1	5V	5V	
2	RXD	IN	GPS
3	UTC	IN	1PPS
4	RXD	IN	Control
5	TXD	OUT	Control
6	GND		

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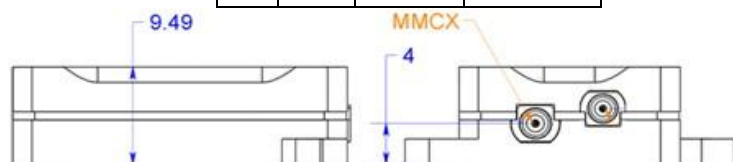
Typical System Configuration
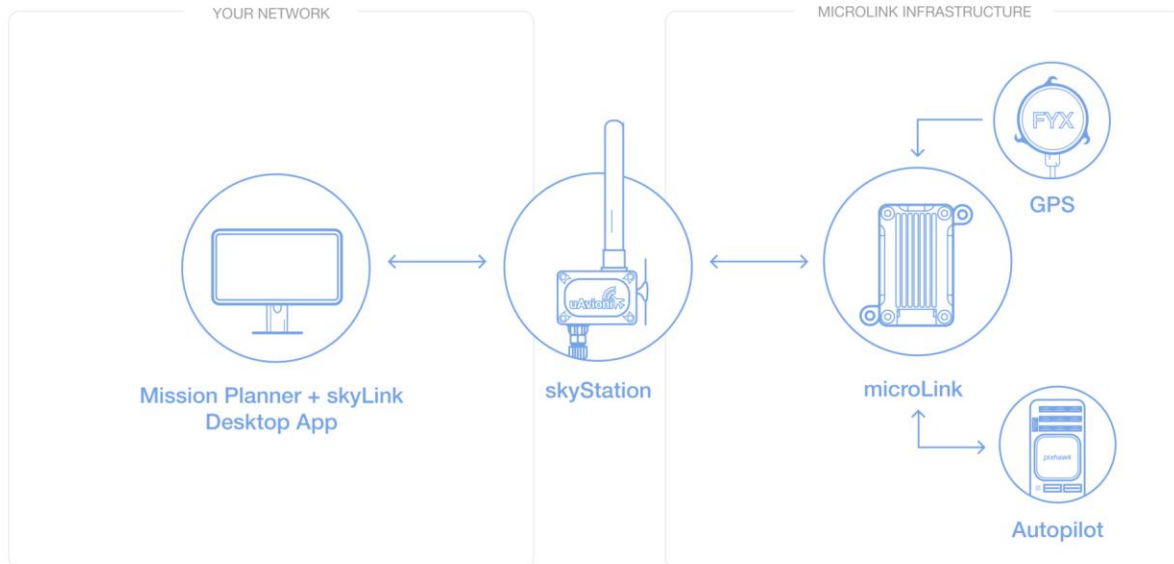
Ordering Part Numbers	
SkyStation	UAX-90044-01
microLink	UAX-90045-01
GPS Options	
microFYX kit	UAX-90042-01
HERE2 kit	UAV-1002956-001
Replacement Parts	
SkyLink Dipole Antenna	UAV-1003060-001
MMCX 100mm	UAV-1003063-001
MMCX 200mm	UAV-1003063-002
GH 6p Cable	UAV-1003061-001
GH 8p Cable	UAV-1003062-001

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