## System parameters

| | ARL-1 | ARL-2 |
|---|---|---|
| Operating frequency | 4,4 ÷ 5,0 GHz (8 channels available) | |
| Operating range[1] | 60 km | 10 km |
| Up-link (aircraft bound) transmission rate[2] | 9,6 kb/s | 32 kb/s |
| Down-link (base station bound) transmission rate[2] | 10 Mb/s | 2 Mb/s |
| Maximum SMR radiation | up to 50 W | up to 1 W |
| Aircraft antenna | Omnidirectional/Directional | Directional |
| BMR-1 antenna | Directional with auto-tracking system | _____ |
| Power supply voltage | BMR-1 - 27 V<br>SMR-1 - 27 V | BMR-2 - 27 V<br>SMR-2 - 12 V |
| SMR power consumption | up to 200 W | up to 7 W |
| SMR weight | 20 kg | 200 g |
| Interface type[3]<br>SMR interface: UP-link, Down-link<br>BMR interface: UP-link, Down-link | <br>Ethernet 10/100 BT<br>Ethernet 10/100 BT | <br>(RS-422) synchronus, data and clock<br>(RS-422) synchronus, data and clock |

[1] For bit error rate not grater than $10^{-4}$
[2] Other transmission rates are available
[3] Other interface types are available, e.g. PAL (in this case H.264, MPEG4 with AVC is used)

tactical communication systems | measurement instruments | controllers

# Air-to-land land-to-air radio link

Transbit Sp. z o.o.
ul. Przyczółkowa 109A
02-968 Warszawa, Poland

biuro@transbit.com.pl
www.transbit.com.pl

phone: +48 22 550 48 00
fax: +48 22 550 48 10

## Highlights

### ARL-1 air-to-land / land-to-air radio link

The ARL-1 is intended for the transmission of picture and other digital data from patrol aircraft to a base station, mounted on a cross-country vehicle or a patrol boat.

It enables the transmission of control data from the base station to the aircraft.

The radio link is made up of two devices:

1. airborne radio module (SMR-1) installed in the aircraft
2. base radio module (RMB-1) installed in a landline stationary or mobile station.

### ARL-2 air-to-land / land-to-air radio link

The ARL-2 is intended for the transmission of picture and other digital data from light aircraft (miniature UAV) to a base station.

It enables the transmission of control data from the base station to the aircraft.

The radio link is made up of two devices:

1. airborne radio module (SMR-2), installed in the aircraft
2. base radio module (RMB-2) installed in a landline stationary or mobile station.



## Pictures

## Air-to-land land-to-air radio link

Intended for the transmission of picture and other digital data from patrol aircraft to a base station