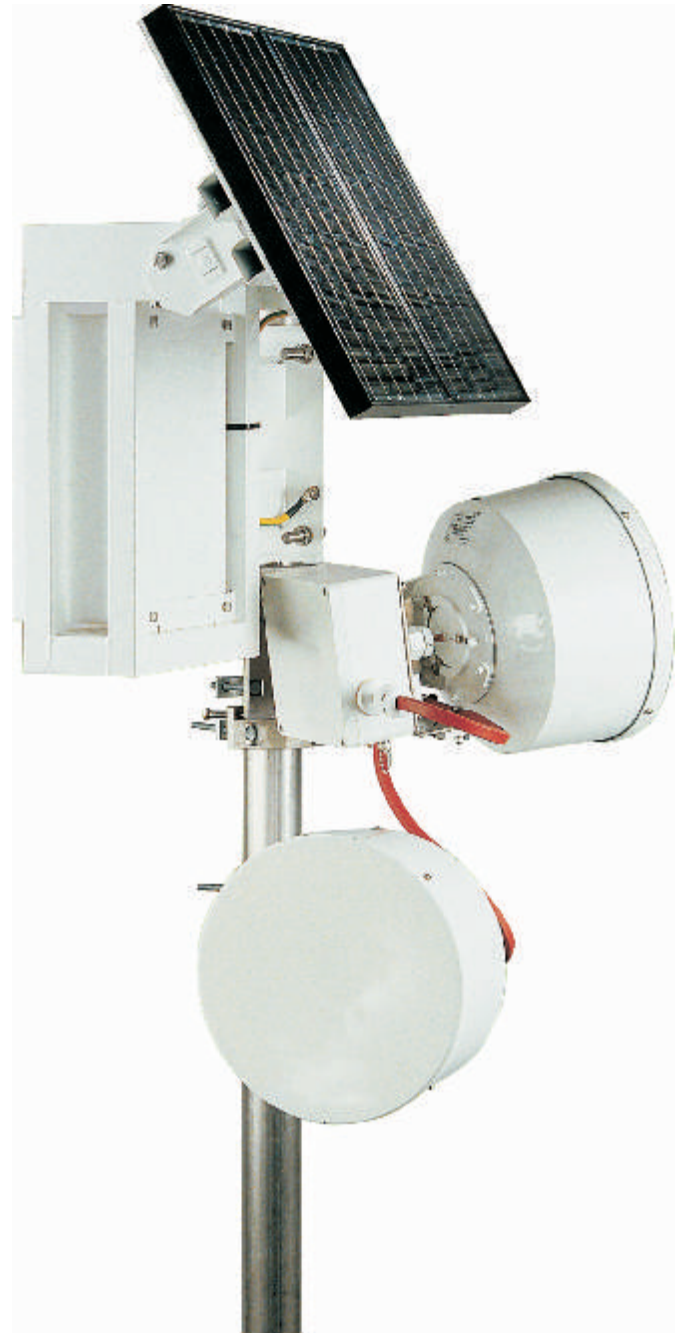


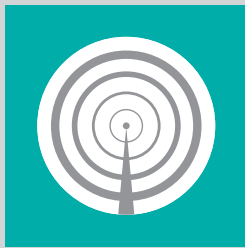
## SparkWave AR-18/23G Active Repeater

The SparkWave AR-18/23G active repeater provides a highly attractive solution for demanding radio paths on 18/23 GHz.



**SPARKWAVE**  
digital microwave radio





# SparkWave AR-18/23G



Active repeater SparkWave AR-18/23G is applicable in cases of long transmission paths, in cases where two radio stations are not within the line of sight and where inconvenient angles prevent the use of a passive repeater. The angle between two antennas can vary from few degrees (depending on the choice of antenna) to up to 180 degrees. Low power consumption allows use of a solar panel, the built-in storage battery assures autonomy in the case of long-term bad weather (up to 30 days). In comparison with the passive repeater, it is also a suitable solution on ecologically sensitive locations.

The active repeater contains an AR module and two antennas. The AR module is built into watertight housing. One of the two antennas can be mechanically bound with the AR module while the second one is connected to the AR module by flexible waveguide. Upon customer request, the device can be supplied with a solar panel - solar cells, voltage converter and batteries.

The AR module contains antenna branching and two wideband amplifiers with automatic gain control. There is no frequency converter built into the device. The received signal from both sides is amplified by two amplifiers and transmitted to the opposite direction at the same frequency.

## Technical data

		SparkWave AR-18G	SparkWave AR-18G						
Active repeater	Frequency Range	17.7-19.7 GHz	22.0-23.6 GHz						
	Maximum Output Power on Antenna Connector	+13 dBm	+10 dBm						
	Gain (without Antenna)	>60 dB	>50 dB						
	Gain Control	19 dB	20 dB						
	Maximum input level	-28 dBm	-20 dBm						
	Power Supply								
	- Voltage		6-28 V <sub>DC</sub>						
	- Consumption		1,3 W at 12 V <sub>DC</sub>						
	Temperature/Humidity		-50°C to +50°C/8% to 100% (extended class 4.1 according to ETS 300 019-1-1)						
	Size (without Antennas)								
- Height		230 mm							
- Width		200 mm							
- Depth		110 mm							
Weight (without Antenna)		4 kg							
Typical data for Antennas	Antenna Type	0.3 m	0.6 m	0.8 m	1.2 m	0.3 m	0.6 m	0.8 m	1.2 m
	- Gain (dB)	33.1	38.7	41.2	44.5	34.8	40.1	42.6	46.1
	- 3 dB Width	3.6	1.9	1.5	0.9	2.8	1.6	1.4	0.8
	- Weight (kg)	9.7	15	35.5	57	9.7	15	35.5	57