

A753 addWAVE UHF

Adcon's A753 addWAVE is a flexible, general purpose radio data logger. It features high analog resolution, WMO compliant measurement methods, an on-board SDI-12 interface with optional Modbus support, a 500mW UHF modem, plenty of data memory, and much more.

The A753 addWAVE combines high analogue and digital input capacity with on-board logging and radio communications. The unit has a range of 5 to 20 km and can be used as a repeater for other Adcon RTUs. Power comes from an internal NiMH battery which is charged by a compact solar panel. A robust aluminum case provides excellent protection and shielding.

Applications

- Weather stations for meteorology and agro-meteorology
- Hydrographics: recording of level, rain, water quality
- Leak detection, meter reading, pressure monitoring



Technical data

Dimensions	160 x 60 x 80 mm	Wind Port C	measures wind 4x per second and calculates 3-sec. average
Weight	1.200 g	Rain Port D	time-stamps every pulse
Ingress Protection class	IP-67	Digital events	records and time stamps every status change on a digital input (max. 1Hz)
Temperature range	-30°C ... +65°C	Operating time (without charging of internal battery)	up to 30 days, depending on slot-time, transmission rate, and power consumption of sensors
Case	powder-coated aluminum	Frequency bands	4x10-MHz bands from 430 to 470MHz
Screw connections	flange sockets of nickel-plated brass, stainless cover screws	Channel spacing	10 / 12,5 / 25kHz
Connectors (all connectors IP67 if properly mated or capped)	4x Binder M9 7-pin to sensors 1x Binder M9 5-pin to solar cell / power supply 1x TNC Antenna connector	Rx Sensitivity	-120 dBm (10 dB S/N)
Power supply	6,2 V NiMH battery 3.100 mAh + solar cell / mains adapter	Tx Output power	500mW
I/O-Ports: analog, counters, TTL, SDI-12	12x analog in (0 ... 1 / 2,5 VDC; including 3x 0 ... 150mV) 4x pulse counter 4x digital in/out (0 - 3V TTL) 40x SDI-12 values	Transmission distance	max. 20km (depends on topography and type of installation)
Sampling intervals	user specific (from 10sec. to 12h)	Antenna	omni-directional, $\lambda/2$, +2dBi
Measuring methods	synchronous & asynchronous	Type approvals	FCC Part 15, ACMA Australia, Industry Canada, etc.
Internal memory	2MB for up to 500.000 values	Ordering information	
Resolution analog	16-bit @ 0...2,5V	100.753.001	A753 addWAVE Band 1 430-440 MHz
Resolution pulse counter	2x 50Hz and 2x 500Hz	100.753.002	A753 addWAVE Band 2 440-450 MHz
Sensor excitation	a) unregulated V-batt. 5,6V ... 7,2V b) regulated 3,3V...5,5V in 0.1V steps	100.753.003	A753 addWAVE Band 3 450-460 MHz
		100.753.004	A753 addWAVE Band 4 460-470 MHz
		200.733.522	Solar Panel, 460mA
		200.733.553	A553 Serial Expansion Box
		800.514.001	A514 Modbus Adapter