

RA440 Remote Wireless Modem

This device is the bridge between two worlds - UHF radio and GPRS. RA440 was built for all those cases where a network of UHF measuring stations needs to be built in an area which is not covered by a GSM network and/or which offers no possibility to install a base station (A850 Telemetry Gateway).

Installed within coverage of a GSM network the RA440 feeds data from a number of UHF remote telemetry units (RTUs) through a single GPRS connection back to an A850 Telemetry Gateway. Up to 10 RA440's can be connected to one A850 Telemetry Gateway (for which a license upgrade may be required to support more than one (R)A440).

Depending on the number of sensors per monitoring station and the desired update interval you can connect up to 20 RTUs to an RA440. Power comes from one or two internal batteries, charged by a solar panel or an external 12V source.

The RA440 accepts standard SIM cards for GPRS data transmission. Ask your Adcon distributor for assistance to calculate the data volumes for your application.



Technical data

Dimensions	227 x 168 x 117 mm (H x W x D)	UHF Frequency ranges	Band 1: 430 - 440MHz Band 2: 440 - 450MHz Band 3: 450 - 460MHz Band 4: 460 - 470MHz
Weight	3.300 g (incl. antennas)	UHF Channel spacing	10 / 12,5 / 25kHz
Ingress Protection Class	IP-67	UHF Rx Sensitivity	-120 dBm (10 dB S/N)
Temperature range	-20°C ... +75°C	UHF Tx Output Power	500mW
Case	powder-coated aluminum	UHF Transmission	max. 20km (depends on topography and type of installation)
Connectors (IP67 if properly mated or capped)	1x Binder M9 5-pin to solar cell 1x UTS 2-pin to external 12V DC source	UHF Antenna	omnidirectional, +2dBi, with 6m cable and mast mounting kit
Power supply internal	1 x 6,2 V NiMH battery 3.100 mAh, charged by solar cell; optionally a second battery can be installed	Type approvals	R&TTE, FCC Part 15, ACMA Australia, Industry Canada, etc.
Power supply external (optional)	12V DC, e.g. standard car battery	Ordering information	
GSM modem	Motorola G24L	100.440.001	RA440 Wireless Modem Band 1
GSM frequencies	800 / 900 / 1800 / 1900 MHz	100.440.002	RA440 Wireless Modem Band 2
GSM Tx Output power	max. 2W depending on frequency	100.440.003	RA440 Wireless Modem Band 3
GSM antenna	omni-directional, +2dBi, TNC	100.440.004	RA440 Wireless Modem Band 4
GSM transmission distance	max. 36km according to GSM standard	200.733.522	Solar panel 540mA
		800.000.270	Spare battery, 3.100mAh, NiMh
		800.440.001	Cable to external 12V battery