

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).

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

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| 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 distance | max. 20km (depends on topography and type of installation) |
| Connectors (all 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 460mA |
| | | 800.000.270 | Spare battery, 3.100mAh, NiMh |
| | | 800.440.001 | Cable to external 12V battery |