

RDF: Remote Data Front-end



The right solution for a total control

RDF (Remote Data Frontend) is the data collection equipment installed inside transmission and reception sites. It's the heart and the hands of the Garda remote control system. Uncompromised reliability, versatility and modular structure are RDF main characteristics. RDF is the ideal solution where you have a lot of data and controls to manage, but you don't have a DSL connection on site: it even transfers SNMP controls to alternative communication media. RDF can be expanded to manage an incredible amount of data, both physical and software:

- Up to 256 analog inputs (8, 10, 12 or 16 bit resolution), up to 248 digital inputs (on-off), up to 256 relays (digital output) and up to 32 x 10bit resolution analog outputs. They are configurable, both locally and remotely, and are programmable to generate alarms or run simple routines, called macros. Furthermore, the I/O state can be read, both on site and remotely, at any time.
- Direct RS-485 SW connection with third party equipment using ANTLAN RS485 protocol or via ANT Protocol Bridge (ANT130)
- Direct SNMP SW connection with third party equipment interfaced with SNMP to ANTLAN® Proxy (ANT 137). Analog inputs have 6 programmable thresholds: 2 alarms, 2 pre-alarms and 2 record thresholds for historical recording.

Contact closure inputs can be set as open or closed.

The optically isolated RS485 interface, together with I/O expanders and ANT universal protocol bridge, can connect practically any kind of third party equipment, making RDF the ideal partner of broadcasters, where many kind of old and new equipment are used without de facto any interface standard.

Alarms are sent immediately to the control center software, the NetPOD, which will activate warning procedures via SMS, phone calls, and e-mail according to timelines, responsibility, area, etc. Should the control center not be momentary in reach of the remote system, the main memory will store a queue of 500 alarms to grant the RDF with a long off-line autonomy.

The connection to the control center can use a number of media, taking advantage of up to three serial ports plus a MSK modulator/demodulator. An optional backup media can be set in active standby, and automatically switched to in case of failure of the main communication media.

RDF is equipped with a main connection route and one or more backup routes: this feature is unbeatable in harsh environments, like remote broadcast sites, where very bad weather conditions or very long distance may disrupt the communication.

One very special communication media is the UHF/VHF radio, when the RDF becomes a store and forward unit. It is practically a router for the next... and the next... and the next...RDF. Each unit acts as a front-end plus a communication unit.



