

TELEMETRY

MAG 200 : Telemetry Acquisition System

MAG 200 system acquires, analyzes and simulates one or several PCM telemetry signals. It meets every test engineer's requirements : configuration, acquisition, visualization and real time processing, replay and post processing. The system is based on the software MAGALI it gives the user all its functionalities, working in the same environment. With its modular architecture, this dynamic solution adapts quickly every new requirement.

Main features

- Complete solution
- Flexible
- Upgradable
- Acquisition
- Simulation
- Multi-sources
- Standalone or distributed
- On network (NDA)

Telemetry format

- IRIG 106
- CE83
- CCSDS
- DANIEL 90 and 2000
- Specific

Performances

- Every PCM formats
- Acquisition with storage
- 20 Mbits/s per canal
- 32000 parameters
- 24 simultaneous graphic displays
- More than 100 visualization objects per display



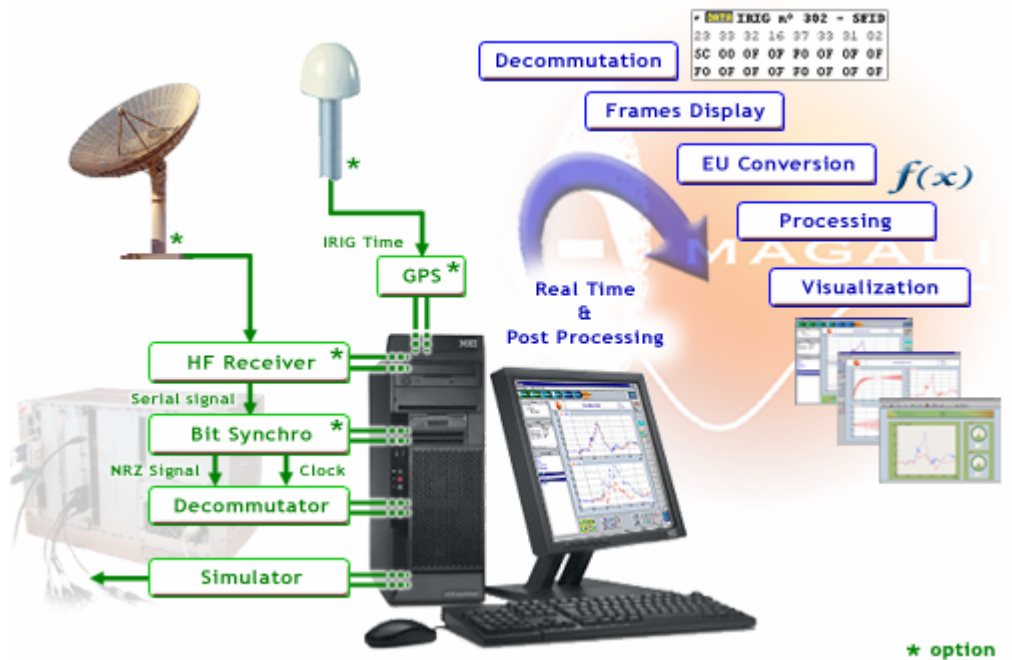
Key points of the MAG 200 telemetry solution

- Acquisition and storage onto disk of PCM data streams, up to 20 Mbits/s for one PCM channel
- Decommuration according to IRIG, CE83, CCSDS, DANIEL, ... format
- Real time visualization on customized graphic displays
- Minor frame analyze with a browser according to PCM format
- Telemetry control : disconnection management, parity errors, invalid frames
- Real time processing, calculation, alarms, ...
- Post processing visualization, graphic analysis, test report
- Post processing analyse, mathematics, frequential, statistic analysis
- Test organisation with MAGALI test manager
- Test configuration via tree structure input masks.

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Description



Workstation

- PC : Laptop, Desktop, ...
- Industrial PCI rack
- PCI rack
- VME chassis
- UNIX Station
- PC Pocket

Operating system

- Windows NT, 2000, XP
- LINUX
- UNIX
- VxWorks

Related services

- On site installation
- Validation
- Training
- Maintenance
- Specific add-ons

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- Solution is built from a desktop or industrial computer; the software MAGALI and interface card : HF receiver, bit and synchronizer and decommutator
- With **MAGALI** real time and post processing technology, it is possible to display and analyse raw data frames, parameters and embedded messages, in raw or engineering values
- **MAGALI** includes adapted graphic objects as well as many processing functions.

Bit synchronizer

Inputs

- Codes NRZ-L/M/S, BIO-L/M/S, DM-M/S, M², RZ, RNRZ-L/M/S-11/15/17/23
- Input data rate 100 bits to 20 Mbits/s (NRZ) 10 Mbits/s (other codes)
- Input level 0.1 to 10 Vcc
- Bandwidth loop 0.1% to 2 %, according to bit frequency
- Polarity automatic detection, normal or reverse
- Bit error rate < 1 dB theoretical curve (rate< 10 Mbits/s)

Outputs

- PCM codes NRZ-L & BIO-L
- Clock 0° & 90°

Decommutator

- Input NRZ-L + Clock
- Input level TTL or RS 422
- Input data rate 10 bits/s to 20 Mbits/s
- Word length 3 to 32 bits
- Minor frame length 2 to 16383 words
- Major frame length 1 to 1024 minor frames
- Bit order MSB LSB first
- Frame sync pattern up to 64 bits
- Frame sync location Leading or trailing the frame
- Frame sync strategy mode (search-lock-verify) or(search-lock)
- Sync error tolerance 0 to 15 bits
- Sync slip window 0 to 3 bits
- Polarity normal, inverted or automatic

Antenna

- Frequency 2200-2400 MHz
- Gain 8 dBi
- Polarization RHCP, LHCP, vertical or horizontal
- Small and light

HF Receiver

- Input rate S, E, L or UHF band
- Tuner resolution 50 kHz
- Rate accuracy 0.002 %
- Noise 10 dB max (6dB typical)
- Sensitivity - 85 dBm