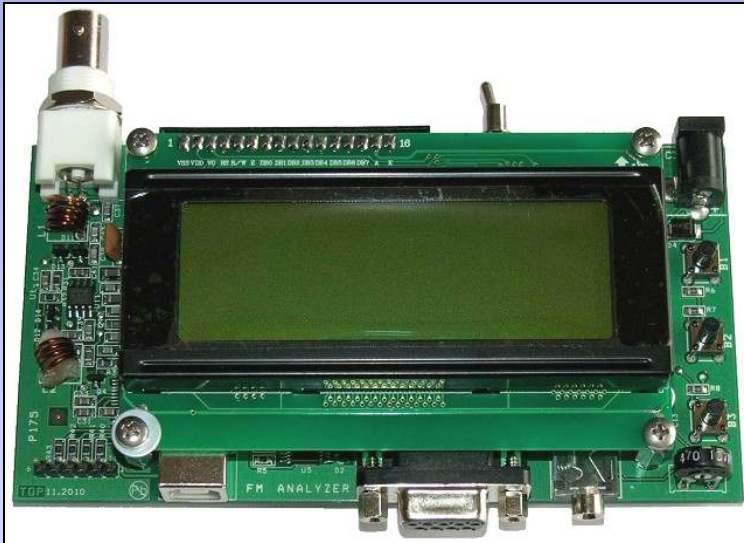


P175 FM Broadcast Analyzer

The P175 FM Broadcast Analyzer is a stand-alone low-cost solution for FM broadcast analysis. It provides complete FM modulation and basic AF spectrum measurements in FM radio band through the antenna input.

Built-in LCD display and control interface allows to measure and collect data in terrain without need of any PC computer. This kind of analyzer is an essential equipment for all FM radio stations to ensure compliance with basic technical broadcast standards and to accomplish the highest audio quality possible.



Main highlights

- Stand-alone design, completely DSP based from IF to outputs
- Compliant with CEPT/ERC REC 54-01 E
- Dual-conversion receiver
- Built-in LCD display, USB and RS-232 interface
- Firmware updates for free
- Easy to use

Measurements

- Overall frequency deviation incl. histogram
- Modulation power
- Baseband FFT
- Pilot deviation
- RDS deviation
- Pilot-to-RDS phase difference
- FM carrier frequency difference
- Signal quality and strength
- Stereo balance meter
- Headphones audio output
- RDS/RBDS decoder

```

106.10 MHz T [signal strength] D1
ΔF: MAX 74.5 kHz
      AVE 69.6 kHz
Pm: 5.4 dBr ( 3.45)

106.10 MHz T [signal strength] D3
ΔF: Pilot 6.8 kHz
      RDS 3.4 kHz
Phase Diff.: 0 deg

106.10 MHz T [signal strength] D4
Histogram of ΔF:
  Samples 3 10^3
  MAX at 72 kHz

106.10 MHz T [signal strength] D4
...menu.....
6 Load Data
File 1 106.10 MHz

99.00 MHz T RDS D6
[KISS FM ] TP TA AF
13:07 51A4 PTY: 15 M
our phone: 742 256 9
    
```

```

106.10 MHz T [signal strength] D2
ΔF:
  MIN 54.6 kHz
  MIN Hold 8.8 kHz

106.10 MHz T [signal strength] D4
69 kHz: 225 ←
70 kHz: 387
71 kHz: 433 →

106.10 MHz T [signal strength] D4
...menu.....
5 Save Data
File 1 No Data

106.10 MHz T [signal strength] D5
R: [signal strength]
L: [signal strength]
R/L Balance: 0.4 dB

99.00 MHz T RDS D6
Group Statistics: ←
0a: 57.0% b: 0.0%
1a: 4.5% b: 0.0%→
    
```

Power supply	8 - 12 V DC or NiMH accu or USB
CPU	120 MHz RISC DSP
Antenna connector	BNC, 50 Ohms
Frequency range	87.5 - 108.0 MHz
Board dimensions	133 x 70 mm

Serial interface and the control software provide a possibility of remote control, data viewing and automated data logging and ftp upload. The control software supports script files and includes task scheduler.

The image displays several software interfaces for radio signal analysis:

- FM Analyzer Tool:** Shows a spectrum plot of an FM signal at 106.00 MHz with a 6.7 kHz bandwidth and 2.8 kHz deviation. It includes a histogram of frequency deviation and a 'Script' window with a batch process script.
- Modulation Power:** A line graph showing modulation power in dB over a 26-minute period, with a maximum of 6.5 dB and an average of 5.21 dB.
- Frequency Deviation Histogram:** A histogram showing the distribution of frequency deviation, with a maximum of 72 kHz and 0% above 76 kHz.
- RDS Spy - moje.rsw:** Displays RDS data for station CR 3, including program ID (232D), name (Jazz Music / [24]), and country (US AG CO HN CF LR ZW DZ CY CZ IE EE AU BT QA TH).
- Basic RDS Decoder:** Shows detailed RDS parameters and a list of RDS groups with their content.
- script.fms - Poznámkový blok:** A script window containing commands for data acquisition, saving, and processing.

Available at <http://pira.cz>