

COMPANY PROFILE

Doewe Technologies, headquartered in Beijing, has been operating for a decade and currently has branches including the Beijing R&D Center, Chengdu R&D Center, Doewe Shanghai, Doewe Shenzhen, and Doewe Hong Kong. The company is fully committed to building its independent brand "Doewe," with its business covering two main categories: Advanced Sensing Measurement and Control (ASMC) and Professional Test and Measurement Solutions (PTMS).

The ASMC product line provides innovative high-precision sensing acquisition and data analytics solutions. PTMS focuses on industry-specific test and measurement solutions for audio, video, and RF applications. It has established the 5XC product system, serving sectors such as transportation, broadcasting, automotive electronics, consumer electronics, and university research institutes.

Through relentless effort, several of the company's products have become benchmark test instruments in their respective industries. Doewe Technologies also holds multiple core patents and software copyrights, participates in relevant industry standards working groups, and contributes to the formulation of national and industry standards. Building on past achievements, Doewe continues to increase its R&D investment. We have never forgotten our original aspiration, firmly believing that only profound technological accumulation creates value. We persistently pursue innovation in test and measurement technology, dedicated to technology development, application software services, and research in test and measurement solutions.

Leveraging its Beijing headquarters, related technical centers, and subsidiaries, Doewe Technologies has gradually established a nationwide pre-sales and after-sales service network, providing customers with professional technical consultation. Guided by the principles of "Rigorous, Efficient, Professional, Innovative," Doewe Technologies will continue steadfastly on this path, living up to the trust of every customer.

The journey ahead is long and challenging. We will accompany you on this path of growth to create a new future of technology together.

Features and Advantages of Core Equipment

The RWC2100F is a multi-channel emergency broadcast tester that provides FM-RDS, AM, RDS reception, and audio analysis functions. It supports three RF (radio frequency) signal generation interfaces, each of which can be set to FM-RDS or AM. FM-RDS offers many editable protocol parameters, such as PID, PS NAME, (e)RT(+), etc. It also provides numerous functional tests, such as AF, EON, TMC, etc. The RDS reception function receives RDS signals via RF and displays RDS parameters. The received RDS signals can be recorded as a file for playback using the FM-RDS generation function.



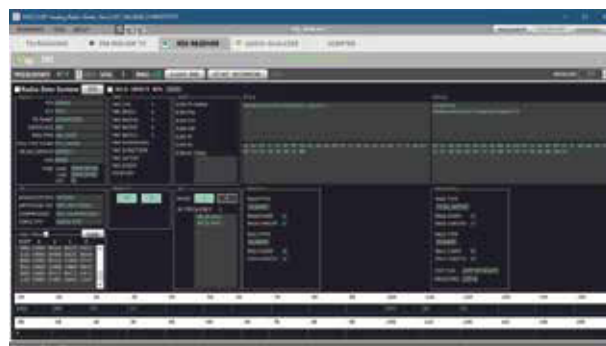
The audio analysis functions of RWC2100F can not only measure audio signal quality (SINAD, THD+N and SNR) and frequency, but also display audio waveforms and audio spectra. All functions can be controlled by PC software, and all parameters can be saved and recalled.

FM-RDS (TX)

- Support 3 independent RF channels
- Support various Audio Mode (MONO / STEREO / Sweep / WAV File) Support
- global configurable RDS (PRBS)-AF, RT, TMC, and EON
- Support broadcast text (RT, RT+, eRT, eRT+) with RDS code, UTF-8 and UCS-2
- Support transmission a recorded RDS file

RDS Reception

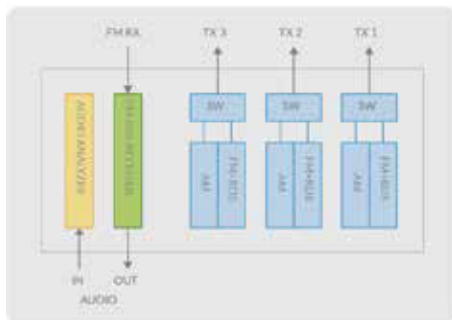
- The RDS receiver demodulates the RDS signal from the received FM-RDS signal and displays the data;
- Can display all parameters defined in the protocol;
- The RDS signal can be saved in the form of a file, and the saved file can be transmitted through the RDS file transmission function of the FMRDS TX of RWC2100F.



Core Features and Advantages

AM(TX)

- Support 3 independent RF channels
- Support various Audio Mode (MONO / Sweep / WAV File)
- Support EON, user-configurable TMC function



System Block Diagram



FM-RDS/AM

Audio Analyzer

- Support SINAD, THDN, SNR, frequency and etc...;
- By increasing the number of measurements, the measured value can be displayed more stably;
- Wave form and spectrum display of audio signal;
- By reducing the power of the 2100F TX signal and monitoring the audio output of the broadcast receiver, the audio analysis function is highly conducive to the automatic testing of Rx sensitivity.



PC software

- To facilitate the coordination and control between different applications, the PC application software of RWC2100F combines two functional interface combinations: FM-RDS/AM generation with RDS reception, or FM-RDS/AM generation with audio analysis.
- Through the combined screen of M-RDS/AM occurrence and audio analysis, the RWC2100F transmits FM or AM radio frequency signals to the user's DUT (Device Under Test). The DUT demodulates these signals and outputs the resulting audio signals to the audio analysis interface of the RWC2100F, enabling the measurement of audio indicators such as SINAD (Signal-to-Noise-and-Distortion Ratio) of the DUT. Users can thus easily and intuitively measure the performance and audio quality of the DUT.



Signal Generation Module Specifications

- Frequency Range: 500 to 1,800 kHz (AM)
76 to 108 MHz (FM)
- Frequency Accuracy: ± 3.5 kHz
- Output Level: -10 to -90 dBm (AM)
0 to -90 dBm (FM)
- Output Level Resolution: 0.25 dB
- Output Level Accuracy: ± 1 dB
- VSWR: Better than 1 : 1.5

Analysis Module Metrics

- Input Frequency: 76 to 108 MHz

Audio Analysis Metrics

- Input Frequency: 0.1 to 20 kHz
- Input Range: Single Ended 2.25 Vrms
- Bandwidth: 20 kHz
- Common-Mode Rejection Ratio(CMRR): 56 dB
- Connection Type: 3.5 pi Stereo

Remote Programming Port

- RJ45(Ethernet)
- RS-232C

Miscellaneous

- Operating temperature: 5 to 40 °C
- DC Power: 12V/3A VDC
- Dimension: 166(W) x 50(H) x 194(D) mm
- Weight: 950g





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