

# 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.



#### Overview

#### Digital Radio Multiplexer

The RWC2010C Ensemble Multiplexer can easily simulate a broadcast station. Users can easily edit protocol parameters on the GUI and apply them to the currently playing signal at any time. The Ensemble Multiplexer supports up to 64 services. Under DAB/DMB, it supports 64 service components; under DRM, with one - click switching, it can simultaneously support up to 4 streams. In addition, the graphical structure can help users master how to configure more quickly.



#### ETI/MDI player

The ETI file describes all the characteristics of a transmittable complete DAB integrated signal. Among them, ETI includes multiple sub-channels between DAB integrated devices and transmission network devices, as well as a formatted Fast Information Channel (FIC). The MDI file describes all the characteristics of a transmittable complete DRM multiplex. MDI contains multi-streams between DRM multiplexers and transmission network devices, as well as a formatted Service Description Channel (SDC). In other words, if the T-DMB/DAB (or DRM) signal of a certain radio station is recorded as an ETI (or MDI) file, the ETI (or MDI) file will contain all the information of that station. With the ETI/MDI player function of RWC and these files, the T-DMB/DAB signal/DRM signal of this radio station can be easily simulated and reproduced in the laboratory.

## **Functional Testing**

RWC2010C supports high-tech protocol testing, such as reconfiguration, broadcast notification, frequency switching, etc. Users can change multiplexing configuration information without interrupting services.

## **Service Linking Test**

Users can connect to up to four devices via the software "Rwc Service Linking Test Tool" on the computer side - these can be RWC2010B/C and RWC2100F, combining services such as DAB, DRM, and FM RDS to build a test environment with a wide coverage range.

## **Analog Broadcast Transmitter**

The RWC2010C is capable of simulating AM, FM, and RDS transmissions. Since most DAB/DRM receivers also have analog AM/FM functions, integrating a test system for digital broadcasting functions (such as DAB/DRM) and analog broadcasting functions into a single tester will be of great use for this device.

#### **Audio Analysis Module**

The RWC2010C is equipped with audio analysis functions. It can not only measure the quality of audio signals (such as SINAD, THD and SNR) and frequency, but also display waveforms and frequency spectrums.



# **Key Performance**



Function	Description
Support Protocol	supporting DAB、DAB+、DMB、DRM30、DRM+、AM、FM、RDS
Compatibility File Player	<ul> <li>The playback function of ETI and MDI files is only applicable to OFDM modulation.</li> <li>The playback function of IQ files is only applicable to DRM30.</li> </ul>
SFN Test	<ul> <li>The DAB/DRM signals can be transmitted instantaneously and synchronously between two RWC2010C devices.</li> <li>When devices are connected via data cables, the signal delay is adjustable, with a delay resolution as low as 0.1 microseconds.</li> </ul>
Built-in Integrated Multiplexer	<ul> <li>Easily Editable Ensemble: DAB, 64 service components; DRM, 4 streams</li> <li>Various Data Services (DAB EPG、SLS、SPI)</li> <li>Reconfiguration Broadcast Notification Frequency Switching TII and TIME functional test</li> </ul>
Service/Seamless linking	<ul> <li>It is suitable for connecting two or more RWC2010C devices, and also for connecting RWC2010C with RWC2100F.</li> <li>DAB-DAB、DAB-DRM、DAB-FM、DRM-DRM、DRM-FM、FM-FM</li> <li>When conducting service connection testing, the handover function is extremely powerful.</li> </ul>
Multi-channel FM & RDS Function	<ul> <li>It can simultaneously generate up to 3 FM/RDS broadcast signals.</li> <li>It is embedded with a dedicated RDS editor inside.</li> </ul>
Audio Analysis Module	Receiver Sensitivity Test     Audio Measurement: SINAD/SNR/THDN     Audio Waveform、Spectrum Display





# Specification

project	parameter
Modulation	<ul><li>OFDM</li><li>D-QPSK、16QAM、64QAM</li><li>FM/AM</li></ul>
Frequency	<ul> <li>LF/MF/HFBand: 149kHz to 30MHz</li> <li>BANDI/II/III: 47 to 68MHz, 76 to 108MHz, 174 to 250MHz</li> <li>Resolution: 1kHz</li> <li>Accuracy: ±1.5ppm/yr @ operating temperature</li> </ul>
Output Level	<ul> <li>-10 to -110dBm(OFDM: -20 to -120dBm) for LF/MF/HF BAND</li> <li>0 to -110dBm(OFDM: -10 to -120dBm) for BAND I/II/III</li> <li>Resolution: 0.1dB</li> <li>Accuracy: ±1dB</li> <li>VSWR: Better than 1:1.5</li> </ul>
RWC9500B Output Level (Optional)	<ul> <li>+15 to -55dBm(CW/OFDM)</li> <li>Resolution: 0.1dB</li> <li>Accuracy: ±1dB</li> </ul>
Freq. Ref.	<ul> <li>Internal Reference &amp; Stability: 10MHz, ±1.5ppm/yr @ operating temperature</li> <li>External Reference Input: 10MHz, 0 to +20dBm MAX.</li> </ul>
Data Input/Output Port	<ul> <li>Ethernet for Remote: RJ45</li> <li>RS232 for Remote: D-sub 9</li> <li>DataInput/Output: RJ45</li> </ul>
Audio Analyzer Characteristics	<ul> <li>Input Frequency: 0.1 to 20 kHz</li> <li>InputRange: Single Ended 2.25 Vrms</li> <li>Bandwidth: 20kHz</li> <li>Common-Mode Rejection Ratio(CMRR): 56 dB</li> <li>ConnectionType: 3.5 pi Stereo</li> </ul>
Miscellaneous	<ul> <li>Operating temperature: 5 to 40 °C</li> <li>Line voltage: 100 to 240 VAC, 50/60Hz</li> <li>Dimension: 240(W) x110(H) x 348(D) mm</li> <li>Weight: 5kg</li> <li>Display: 5" Color LCD, touch screen</li> <li>Internal storage: 256GB</li> </ul>





## Beijing Doewe Technologies Co., Ltd

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