

# RWC2100F

## Analog Radio Tester



### GENERAL

The RWC2100F multi-channel analog radio tester supports FM-RDS, AM, RDS analyzers, and audio analyzers. 3-TX channels can be transmitted simultaneously and each TX channel can be set to FM-RDS or AM. FM-RDS provides many editable protocol parameters such as PID, PS NAME, radio text, etc. It also provides many functional tests such as AF (Alternative Frequency), EON, TMC, TIME, etc. The RDS analyzer receives signals over the air and displays RDS parameters. The received RDS signal can be recorded as a file, and the recorded file can be played back with the FM-RDS TX function. The audio analyzer shows the audio spectrum and audio waveform as well as measures audio signal quality (SINAD, THDN and SNR) and frequency. The Audio Analyzer is very useful for automatic measurement of RX sensitivity, by reducing the TX power of the 2100F TX signal and monitoring the radio (DUT) audio output with the Audio Analyzer.

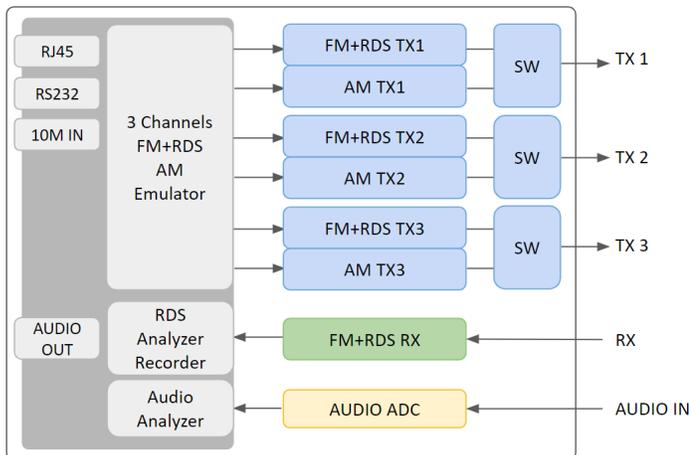
### KEY FEATURES

#### FM-RDS (TX)

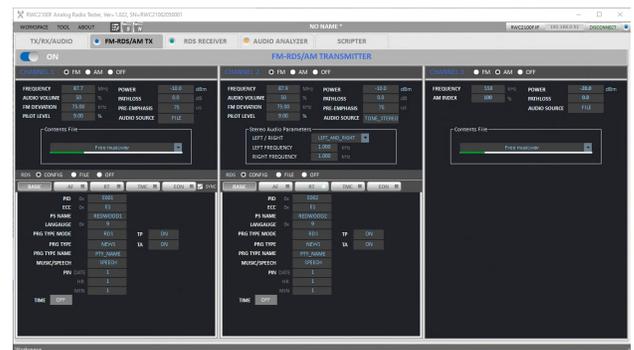
- Support 3 independent RF channels with fully configurable RDS
- Support various Audio Modes (MONO / STEREO / WAV File/ SWEEP)
- Support the latest radio text functions (RT, RT+, eRT, eRT+) with RDS code, UTF-8 and UCS-2.
- Support transmission a recorded RDS file
- Automatic EON test function
- User-configurable TMC (Traffic Message Control) function
- Up to 10 AFs using method A/B

#### AM (TX)

- Support 3 independent RF channels
- Support various Audio Mode (MONO/WAVE Music/Sweep)



[System Block Diagram]



[FM-RDS / AM]

## FM-RDS (RX)

- Receive and analyze one FM-RDS radio signal
- Display RDS information such as PS\_NAME, Radio Text (RT, RT+, eRT, eRT+), AF list, etc
- Record the RDS data to the file



[FM-RDS Analyzer]

## Audio Analyzer

- SINAD, THDN, SNR and frequency measurement function
- Waveform and spectrum display of audio signal



[Audio Analyzer]



[Combination]

## SPECIFICATION

### Transmitter Characteristics

- Frequency Range
  - 500 to 1,600 kHz (AM)
  - 76 to 108 MHz (FM)
- Frequency Accuracy:  $\pm 3.5$  kHz
- Output Level
  - -10 to -90 dBm (AM)
  - 0 to -90 dBm (FM)
- Output Level Resolution: 0.25 dB
- Output Level Accuracy:  $\pm 1$  dB
- VSWR: Better than 1.5

### Receiver Characteristics

- Input Frequency: 76 to 108 MHz

### Audio Analyzer Characteristics

- 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

### Miscellaneous

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

## Ordering Information

C2100F-00 : Analog Radio Tester - Full Option

AM/ FM/ RDS Receiver/ Audio Analyzer

C2100F-01 : Analog Radio Tester - Transmitter only

AM/ FM

O2100F-01 : RF Combiner Module

Combining 3 TX ports and bypassing RX port

## CONTACT

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