D200 SIGNAL LEVEL METER

1. General introduction

1.1 Overview

D200 is designed for test of DVB-C network, supporting DVB-C J.83 Annex A and Annex B. It can measure channel power, MER and BER of digital channel, as for analog channel, it can measure single channel, dual channel, A/V, C/N, voltage, etc…It is an ideal instrument for cable TV maintenance.
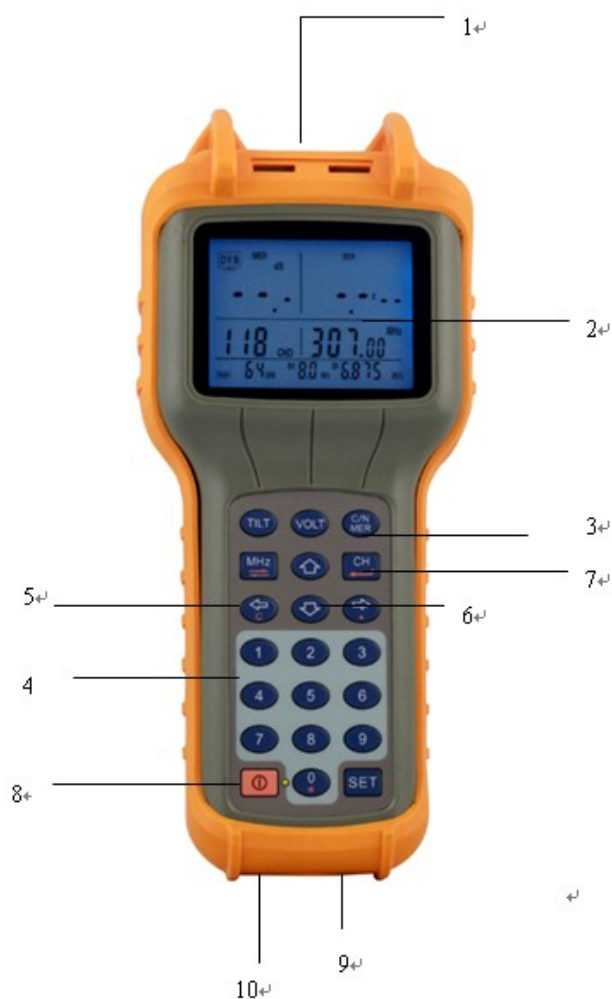
1.2 Front view

(1) RF input
(2) LCD screen
(3) Soft key
(4) Numeric keys
(5) Function keys
(6) Up and Down arrow key
(7) Channel input and enter key
(8) Power key
(9) DC-in
(10) Charger indicator
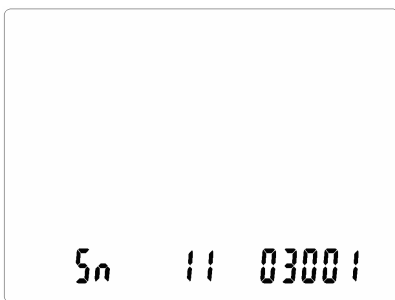
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2. User guide

Figure 2-1

2.1 Power on
Press power key to power on the meter. S/N will show on the screen and enterthe standup mode.
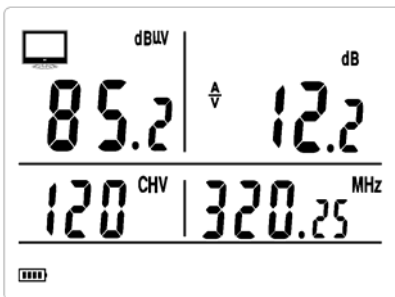

Figure 2-2

2.2 Single channel level measurement.
In this mode, channel number and frequency will show on the middle of the screen, video carrier signal level and A/V value will show on the upper of the screen.

Press Left and Right arrow button to change the channel number in the sequence of frequencies.

Directly enter channel number and press Channel/Enter key to enter the desired channel.

In this mode, press Channel/Enter key to shift between video carrier measurement and audio carrier measurement.
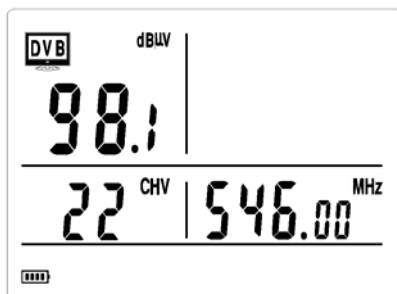

Figure 2-3

2.3 Digital channel power measurement.
In the single channel measurement mode, press "0" key to set the channel as digital channel and the channel power will show on the screen. The meter will save the settings automatically, then you don't have to set it again when reset the meter.

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Figure 2-4

2.4 QAM measurement

In digital channel power measurement mode, press C/N /MER key, the meter will take you to QAM measurement mode. The MER and BER will show on the screen. The parameters of current channel show on the bottom of the screen. Press C/N/MER key again to go back to digital channel power measurement mode.

Setup of parameters:

Press SET key to enter the setting mode, and press SET key again to shift among the parameters. Press Up and Down arrow keys to shift parameters or using numeric keys directly enter parameters, you need to press Channel/Enter key after setting each parameter.
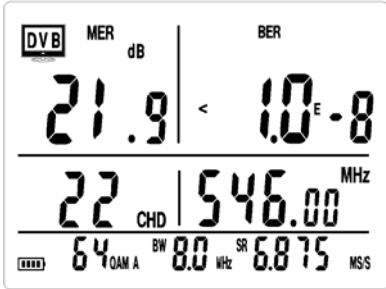

Figure 2.5

2.5 Audio carrier signal level measurement

In single channel measurement mode, press CH/Enter key to enter audio carrier signal level measurement mode. The channel number and frequency of audio carrier will show on the middle of the screen. Audio carrier signal level will show on the upper screen.

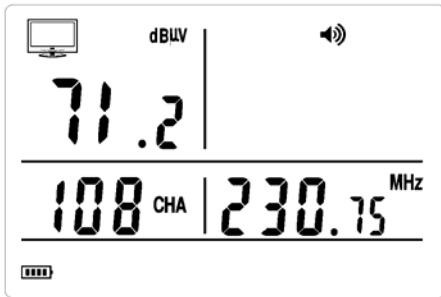Press "0" button to adjust volume of the speaker.

Figure 2-6

2.6 Single frequency level measurement.

In single channel measurement mode, press frequency number and press MHz key to enter the single frequency level measurement mode. The signal level will show on the upper of the screen. Now you can turn the frequency using Left and Right arrow keys. Change the tuning steps using MHz key, in sequence of 100MHz、10MHz、1MHz、100KHz、10KHz.
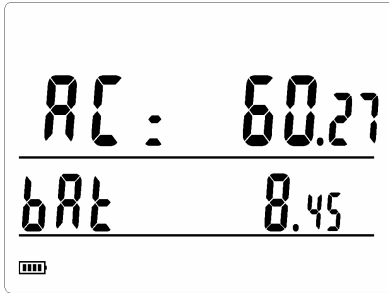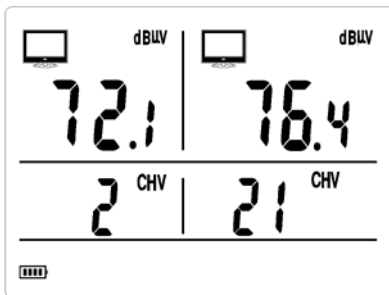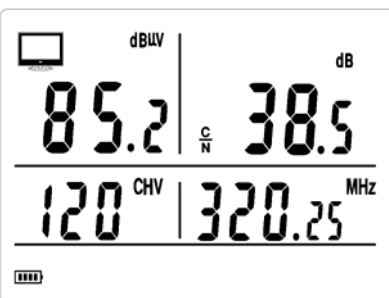
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Figure 2-7

2.7 Voltage measurement

Press VOLT key to enter voltage measurement mode.

The meter will detect AC or DC trunk voltage and display the value on the screen. Battery voltage will also display on the screen.

Figure 2-8

2.8 TILT Measurement (Dual Channel measurement)

In channel measurement mode, press TILT key to enter the TILT measurement mode.

Channel number and signal level of two channels will show on the screen synchronously.

Using Left/Right arrow key select one between the two channels and change the channel number by Up and Down arrow keys or direct input when the "CH" symbol blinks, press CH/Enter key to save the changed channel number.

Figure 2-9

2.9 C/N measurement

In single level measurement mode, press C/N/MER key to enter C/N measurement mode.

The C/N value will show on the upper right of the screen.

Note:

1）Only affect when signal input is over 70dBuV.

2）C/N measurement result is an approximate value.

4. Specifications

DVB parameters

Frequency range: 5（47）MHz-870MHz

Demodulation type： DVB-C/ITU-T J.83-Annex A.B

QAM mode: 32QAM, 64QAM, 128QAM, 256QAM

Average power range: 35dBµV～110dBµV

Accuracy: ±2dB

Bandwidth: User settings.

Symbol rate: 1MS/S～7.9MS/S

MER： 20dB～35dB, ±2dB

BER： 10-3～10-8

Analog TV

Frequency range: 5（47）MHz-870MHz

Frequency resoluation:50KHz

Bandwidth: ≥280KHz

Level measurement

Level range: 30dBuV ~ 120 dBuV

Accuracy: ±2dB

Resolution: ±0.1 dB

Detection mode: Peak value

Impedance: 75Ω

C/N

Input：>75dBuV

Voltage measurement:

Input: 0-80V DC or AC

Accuracy ±2V

Resolution: 0.1V

Above parameters are in （25℃）

Others:

Dimension: 192mm×85mm×45mm

Net weight: 1KG.

Power supply:

The new meters are with:

AC: 100~240V 50/60HZ

DC: 10V 1.0A

Battery: Li-ion 2200mAH, 7.4V

Working time: 6 hours continuous working after full charge.

Charging time: 8 hours.

Accessories:

Power adaptor: 1PC

F connector: 2PCS

User manual: 1PC.