

General introduction

Overview

ZMCP-2.0DR 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.



Unique Features:

Z series digital signal level meters are designed to be “Smart”. Calibration data are saved to different IC, then the user can upgrade the meter to latest firmware version if needed. This is the utility to upgrade your meter easily, you just need a PC with Serial COM port and an optional communication cable.

In some locations, there are a lot of MSOs, who need their special channel plan. Use this software to program user-defined channel plan to the meter. You can even set different parameters to each specific channel on PC.

In some cases, the users don't want to change the channel plan on PC, for example, they prefer to change the channel frequency of channel 5 on the meter, they can enter channel editing mode by pressing SET when powering on, in which they can edit both analog and digital channels easily

Select Com Port
☒ COM1

Channel Data
Position
Plan1

| | CHAN | FREQ | BW | AIF | Type | Mode | SR | CenFreq |
|---|------|--------|----|-----|------|-------|-------|---------|
| 1 | 2 | 48.25 | 7 | 5.5 | ANAL | 64QAM | 6.875 | 50.5 |
| 2 | 3 | 55.25 | 7 | 5.5 | ANAL | 64QAM | 6.875 | 57.5 |
| 3 | 4 | 62.25 | 7 | 5.5 | ANAL | 64QAM | 6.875 | 64.5 |
| 4 | 71 | 69.25 | 7 | 5.5 | ANAL | 64QAM | 6.875 | 71.5 |
| 5 | 72 | 76.25 | 7 | 5.5 | ANAL | 64QAM | 6.875 | 78.5 |
| 6 | 73 | 83.25 | 7 | 5.5 | ANAL | 64QAM | 6.875 | 85.5 |
| 7 | 74 | 90.25 | 7 | 5.5 | ANAL | 16QAM | 6.875 | 92.5 |
| 8 | 75 | 97.25 | 7 | 5.5 | ANAL | 32QAM | 6.875 | 99.5 |
| 9 | 101 | 105.25 | 7 | 5.5 | ANAL | 64QAM | 6.875 | 107.5 |

ChannelPlan Default Vale
PlanNam CCIR Ver 1
Default Digi ANNEX A BW 7
Default QAM QAM64 AIF 5.5
SR 16QAM 6.875 SR 128QAM 6.875
SR 32QAM 6.875 SR 256QAM 6.875
SR 64QAM 6.875 SR OTHER

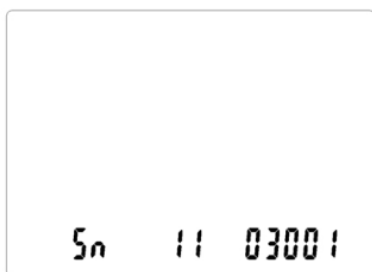


Figure 1

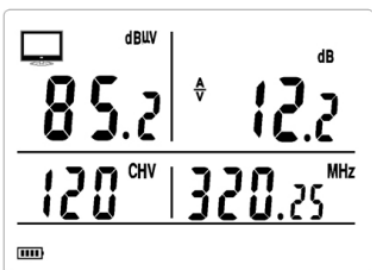


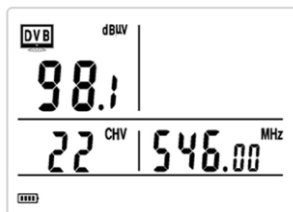
Figure 2

Power on

Press power key to power on the meter. S/N will show on the screen and enter thestandup mode. (Figure 1)

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)



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.



AM 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.



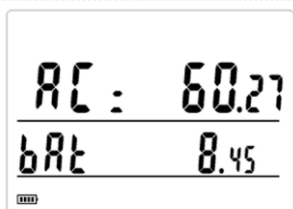
Setup of parameter

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



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.

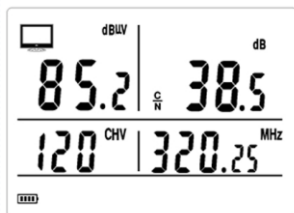


Single frequency level measurement.

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.

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.



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 70dBμV.
- 2) C/N measurement result is an approximate value.

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 |
| Analogic TV | |
| Frequency range | 5 (47) MHz-870MHz |
| Frequency resolution: | 50KHz |
| Bandwidth: | ≥ 280KHz |
| Level measurement | |
| Accuracy: | ±2dB |
| Resolution: | ±0.1 dB |
| Detection mode: | Peak value |
| Impedance: | 75Ω |

Specifications

| C/N | |
|--------------------------|---|
| Voltage measurement: | |
| Input: | 0-80V DC or AC |
| Accuracy | ±2V |
| Resolution: | 0.1V |
| Above parameters are in | (25℃) |
| Others: | |
| Net weight: | 1KG. |
| Dimension: | 192mm×85mm×45mm |
| 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. |