

## General introduction

### Overview

ZMCP-3.0HE comes with a solution that can handle digital TV and maintain the analog spectrum, enable technicians to use it in the most demanding situations with a single, rugged instrument, wherever it is needed. The new QAM View digital analysis option adds forward path digital signal testing that includes constellation, pre/post FEC BER, MER. Analog signal measurements are addressed with standard features like RF signal level, full scan, TILT, in-service C/N, A/V, and FCC compliant auto testing.



- 5MHz ~ 870MHz
- Large 320\*240 color LCD display with back light
- DVB analysis, MER, BER, Constallations, average power
- Single channel test and single frequency test, V/A. C/N, TILT, Trunk voltage
- Full scan, single channel spectrum analysis, spectrum analysis of other range
- Extended and flexible data storage, data logging, easy upload and download data via PC
- More Learned channel plans, changeable through PC
- Limit measurement and automated FCC proof of performance test



### Performance LCD

The meter has a 320\*240 enlarged color LCD and the new screen graphics enhance readability and simplify operations.

### Ideal for digital and analog network

Enables analysis and quality measurements of digital TV and analog TV and easy operations of networks for interactive services with a 5 to 870MHz fast, sensitive spectrum analyzer.



### Data logging

The meter can save files for level, spectrum, scan, limit test and auto-test measurements, these files can be recalled to view the recorded data via RS-232C port.

### Durable and compact

It's durable, simple to use in a wide range of conditions. The tough plastic shell and protective jacket make it highly resistant to damage from shock and impact.

### High performance batter

Battery-powered handheld model, Internal Ni-MH battery with included charger. Battery life: more than 5 hours. Cost effective and efficient reduces testing and troubleshooting times for network analysis and qualification.



### Digital measurement

The meter lets you take the direct measurement of QAM signals average power measurement, digital analysis op on is available for forward path digital signal testing that includes pre/post FEC, BERT, MER, constellation.

### Analog measurement

The meter can display all channels in a single view. Amplitude measurement is displayed individually, as a group, or as a full-span display. Direct channel input of channel numbers, simultaneously displays video carrier and audio carrier strength, and V/A measurement. Tilt measurement of 5-12 user definable channels. Carrier to-noise ratio measurement, trunk voltage measurement.



### Single channel spectrum

It features a single-channel spectrum mode which displays the presence of interfering beats in addition to carrier.

### Limit and auto measurement

Limit measurement and automated FCC proof of performance test, Auto measurement.

### More channel plans

Up to 10 learned channel plans, changeable through PC, also has 2 user defined channel plans, available to define the favorite channels from basic channel plan.



## Digital Power (Channel Power) Measurement

Signal Types QPSK, QAM, COMDF, random waveform  
 Accuracy  $\pm 2\text{dB}(0^{\circ}\text{C}\sim 40^{\circ}\text{C})$

## Digital Power (Channel Power) Measurement

Support 16/32/64/128/256QAM DVB-C  
 Demodulation Type ITU-TJ.83-AnnexA/AnnexB  
 Symbol Rate 1.00Mbps  $\sim 7.00\text{Mbps}$   
 Bandwidth 6MHz  $\sim 10\text{MHz}$   
 Frequency Tuner 50 KHz  
 MER measurement range 19  $\sim 38\text{dB} \pm 2\text{dB}$   
 BER Pre/post FEC measurement range 10E-2 to 10E-9  
 Tuning range 5M  $\sim 862\text{MHz}$   
 Tuning mode by channels or by frequency  
 Power measurement type QAM, QPSK, DOFDM

## Frequency

Range 5MHz - 870MHz  
 Bandwidth 280KHz  
 Frequency tuner 50KHz  
 Accuracy  $\pm 50\text{ppm}(20^{\circ}\text{C} \pm 5^{\circ}\text{C})$   
 Resolution 10KHz

## Constellation

Display size 64 and 256 QAM

## Analog Level Measurement

Range 20dBuV - 120dBuV  
 Accuracy LEVEL ( $> 35\text{dBuV}$ )  $\pm 1.5\text{dB}(10^{\circ}\text{C} \text{ to } 30^{\circ}\text{C})$   
 SCAN  $\pm 2\text{dB}(10^{\circ}\text{C} \text{ to } 30^{\circ}\text{C})$   
 Resolution 0.1dB  
 Input Impedance 75ohm (unbalanced, BNC or F type connector)  
 Wave detection Peak Value

## Channel Type

Analog TV TV  
 Digital TV QAM, QPSK  
 FM channel Single frequency

## Channel Scan

Number of Channels 200 channels max.  
 Scanning speed 4 channels / sec  
 Scale 1, 2, 5, 10, 20 dB/div  
 Zoom 1x, 2x, 4x three levels of magnification or full Channel Plan scan  
 Memory 100 groups, each group store max 200 channels

## Channel Scan

Number of Channels 200 channels max.  
 Number of Learned Channel Plan 10 max, including 2 user defined  
 Audio Output Built-in speaker  
 Dimensions 120mm x 95mm x 50mm  
 Gross Weight 1.4kg  
 Net Weight 0.6kg  
 Display 320 x 240 Color LCD with backlight  
 Connector type F81 connector  
 Display 128\*64 black and white LCD

## Power Supply

Battery 7.2V 1.6AH Ni-MH battery  
 Charger AC 100V-240V/50Hz  
 Working Time Average 4-7 hours (full charged battery)  
 Charging Time 5-10 hrs

## Communication Port

RS-232C

## Storage

32 Kb of memory  
 Up to 30 complete scan files (170 channel max)  
 less if other files (Level, Tilt, QAM, Spectrum) are saved

## Dimensions

Size 240mm \* 100mm \* 60mm  
 Gross Weight 1.4kg  
 Net Weight 0.6kg (with rubber jacket)