

## 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.

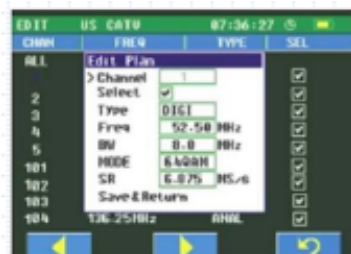


## Digital measurement

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 $\sim$ 7.00Mbps
Bandwidth	6MHz $\sim$ 10MHz
Frequency Tuner	50 KHz
MER measurement range	19 $\sim$ 38dB $\pm$ 2dB
BER Pre/post FEC measurement range	10E-2 to 10E-9
Tuning range	5M $\sim$ 862MHz
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
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## Analog Level Measurement

Range	20dBuV - 120dBuV
Accuracy	LEVEL ( $> 35\text{dBuV}$ ) $\pm 1.5\text{dB}$ ( $10^{\circ}\text{C}$ to $30^{\circ}\text{C}$ )
SCAN	$\pm 2\text{dB}$ ( $10^{\circ}\text{C}$ 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)