

## General introduction

### Overview

The ZMCE-1.1AD is an economical ideal instrument for the basic HFC network. It is rugged, very simple and efficient to use, has a durable plastic shell and protective rubber jacket, and is convenient for one hand operation.

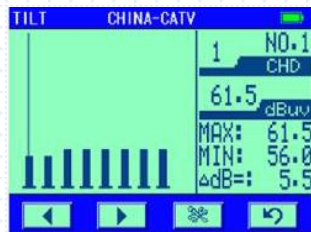


- Direct frequency input from 46MHz ~ 870MHz
- DVB average power measurement
- Direct channel input of channel numbers
- Simultaneously displays video carrier and audio carrier strength, and V/A measurement
- Selectable dBmV, dBμV and dBm units
- Tilt measurement of 8 user definable channels
- Carrier-to-noise ratio measurement
- Trunk voltage measurement
- Large 320\*240 color LCD display with back light
- USB port with PC communication function
- battery-powered handheld model, Internal Li-ion battery with charger included
- Rugged, compact and mobile, with rubber jacket, carry strap and manual
- Battery life: ~8 hours



## Unique features - Test menu

Indicates the value of the signal level or channel power



## Unique features - 8 channel TILT

View 8 Channel TILT at the same time. View the test value by pressing one button.

CHINA-CATV							
TILT	CH	FREQ	TYPE SELE				
	1	49.75MHz	Anal <input checked="" type="checkbox"/>				
	2	57.75MHz	Anal <input type="checkbox"/>				
	3	65.75MHz	Anal <input checked="" type="checkbox"/>				
1	1	2	3	4	5	4	105
5	6	10	7	12	8	55	

## Unique features - Channel edit

AUTO		CHINA-CATV			
CH	FREQ	TYPE	SELE		
1	52.50MHz	Digi	<input checked="" type="checkbox"/>		
2	57.75MHz	Anal	<input type="checkbox"/>		
3	65.75MHz	Anal	<input type="checkbox"/>		
1	1	2	103	3	119
4	120	5	6	7	8
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## Unique features - Auto test

Autotest allows you to test up to 8 channels and get test result sheet by pressing one button.



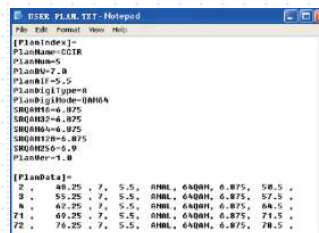
Li-ion powered

## Unique features - Li-ion battery



## Unique features - Upgrade

Can be upgraded to the latest firmware, by using the upgrading software, to add functions, fix meters, or keep update



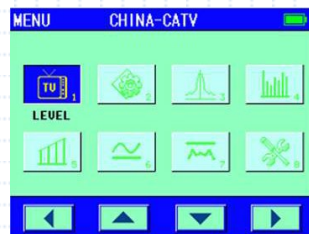
## Unique features - Edit channel with .TXT file

You can use Windows Notepad to edit the channel plan and then program to PC.



## Unique features - Advanced Calibration Technology

Most advanced calibration technology, use R&S (Germany) digital signal generator, calibrate meter at high and low temperatures.



## Unique features - Color LCD

The meter adopts 320\*240 TFT color LCD, high user experience, more content in a screen.

# SPECIFICATIONS

## QAM Analysis (Digital Channel)

Support	16/32/64/128/256QAM DVB-C;
Demodulation type	ITU-TJ.83-AnnexA/AnnexB/AnnexC
Symbol Rate	1.00MS/s ~7.00MS/s
Bandwidth	1MHz~8MHz
Frequency tuner	50 KHz
MER measurement range	19~40dB
BER Pre/post FEC measurement range	10E-2 to 10E-9
Tuning range	46 MHz~870MHz
Tuning mode	by channels or by frequency
Power measurement type	QAM, QPSK, DOFDM

## Frequency

Range	46MHz—870MHz
Resolution	10KHz
Bandwidth	280KHz
Frequency tuner	50 KHz
Accuracy	±50 ppm @ 20° C ± 5°

## Digital Channel Power (Avarage)

Level range	35 to 120 dBuV
Accuracy	±2.0 dB@10° to 30°C (50° to 86°F) ±3.0 dB@-10° to +40°C (14° to 104°F)
Resolution	0.1dB

## Channel Type

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

## Analog Level Measurement

Range	25dBuV—120dBuV
Accuracy	±2dB
Resolution	0.1dB
Input Impedance	75ohm
Wave detection	peak value

## Spectrum Analysis (Option)

Bandwidth	Ranging between 4.5MHz, 9MHz, 27MHz, 54MHz, and full span
Scale	1, 2, 5, 10, 20 dB/div
Marker	1 (Frequency and signal level)

## Carrier-Noise Ratio (C/N)

Input range	65dBuV (minimum input level)
Measurement range	30 to 54 dB
Accuracy	±2dB
Resolution	0.1dB

## Tilt measurement

Number of channels	8
Resolution	0.1dB

## Trunk Voltage measurement

Input range	0-100VAC
Accuracy	± 1.5V Resolution 0.1V
Resolution	0.1V

## Auto-Test

Number of channels	8
Tests	Level or digital channel power

## Channel Plan

Number of Channels	200 channels max
Number of Learned Channel Plan	17 max. 8 preset, 8 editable by PC 1 user defined

## Channel Plan

Battery	11.1V 1.5AH Li-ion battery,
Charger	AC 100V-240V/50Hz
Working Time	>=8 hours (full charged battery)
Auto power off	Selectable (10 min, 20 min, 30 min, always on)
Charging Time	5-10 hrs.
Connector type	F81 connector.
Display	320*240 Color LCD

## Comunication

Port	USB
Gross weight	1 kg
Net weight	0.5kg (with rubber jacket)
Dimensions	85mm*160mm*40mm
Package	220mm*177mm*62mm

## Another Specification

ZMCE-1.1AD:	46~870MHz, 320*240 Color LCD, digital power
ZMCE-1.0A:	46~870MHz, 320*240 Color LCD, digital power, MER, BER