



Chroma Digital Power Meter 66200 series is a single-phase power meter designed for measurement of AC or AC+DC power signals and related parameters common to most electronic products. Instead of traditional analog measurement circuits, the Power Meter 66200 uses state-of-the-art DSP digitizing technology. The internal 16 bits analog/digital converters with sampling rates of up to 240kHz provide both high speed and high accuracy measurements. The instrument provides excellent function and stability compared to other power meters of same class currently available on the market. It includes a front panel 4 display area with 5 digits, 7-segment LED readouts as well as optional remote control using USB or GPIB interfaces.

The 66200 series Power Meter is also designed to meet ENERGY STAR / IEC 62301 / EUP ecodesign measurement requirements. The instrument provides 10mA minimum current range and 0.1mW power resolution providing less than 2% uncertainty for No-Load mode power measurement. Included are not only traditional averaging methods but also accumulated energy approach method used to calculate active power data. In this way, users can achieve accurate readings even if power consumption levels are not stable or operating on in non-linear modes (i.e. hiccup modes). The Model 66202 can even measure Total-Harmonic-Distortion (THD) and to user-specify distortion orders. Thus, the

instrument can easily measure distortion values up to and including the 13th harmonic as required by ENERGY STAR requirements. The 66200 Power Meter also includes limit test GO/NG functions. This feature allows users to set pass/fail limits to automatically display PASS/FAIL according to these user-define criteria.

The Model 66201 includes simple measurement functions designed for testing at low power levels (maximum current 4A). Examples of these devices are AC adapters, battery chargers, LCD monitors and similar devices. Included measurement data is Voltage (Vrms, Vpeak+, Vpeak-), Current (Irms, Ipeak+, Ipeak-), Power (W, Power Factor, Apparent Power VA, Reactive Power VAR), Current Crest Factor and Frequency. The Model 66201 Power meter is competitively priced to be suitable for bench-top testing and automated production line testing.

The Model 66202 includes a 2-shunt design to get 66202 highly accurate for both low and high current measurements. Besides the parameters measured on Model 66201, it also provides Inrush Current, Total Harmonic Distortion of V/I and Energy measurement. With these practical functions, The Model 66202 is suitable for meeting the demanding tasks of R&D and quality control departments.

KEY FEATURES

- Embedded high speed DSP, 16 bits Analog/Digital converters
- 10mA minimum current range and 0.1mW power resolution
- Meet ENERGY STAR / IEC 62301 / EUP ecodesign measurement requirement
- Accumulated energy methods for unstable power measurement
- User-define criteria for automatic PASS/FAIL judgment
- Half rack width and small 2U height, suitable for system integration
- Dual shunts for current range selection providing high accuracy over a wide current range (66202)
- THD and user-specify orders distortion measurement (66202)
- Inrush current and Energy measurement (66202)
- Optional remote interface: USB or GPIB+USB
- Voltage/current harmonics measurement up to 50 orders
- Capable of displaying input waveform DC component measurement reading



Softpanel for Model 66200 Series



Power Efficiency Test Softpanel

ORDERING INFORMATION

- 66201** : Digital Power Meter
- 66202** : Digital Power Meter
- A662001** : USB Remote Interface Board
- A662002** : GPIB+USB Remote Interface Board
- A662003** : Measurement Test Fixture (250V/15A)
- A662004** : Rack Mounting Kit for 66200 Series
- A662005** : USB Cable (180cm)
- A662006** : External CT 50 Arms for Model 66202
- A662007** : External CT 100 Arms for Model 66202
- A662008** : Power Efficiency Test Softpanel
- A662009** : Softpanel for Model 66200 Series
- A600009** : GPIB Cable (200cm)
- A600010** : GPIB Cable (60cm)



A662003 : Measurement Test Fixture

SPECIFICATIONS		
Model	66201	66202
Channel	1	1
Parameters	V, Vpk, I, Ipk, W, VA, VAR, PF, CF_I, F	V, Vpk, I, Ipk, Is, W, VA, VAR, PF, CF_I, F, THD_V, THD_I, Energy
AC Voltage		
Range	150/300/500Vrms (CF = 1.6)	150/300/500Vrms (CF = 1.6)
Accuracy	(0.1% + 0.05% * kHz) of rdg + 0.08% of rng	(0.1% + 0.05% * kHz) of rdg + 0.08% of rng
Input Resistance	1MΩ	1MΩ
AC Current		
Range	0.01/0.1/0.4/2 Arms (CF=4) *1	SHUNT H : 0.2/2/8/20Arms (CF=2@0.2/2/8A, CF = 4@ 20A) SHUNT L : 0.01/0.1/0.4/2Arms (CF=4)
Accuracy *2	0.01A range : (0.1 + 0.05 * kHz)% of rdg + 0.25% of rng 0.1/0.4/2 A range : (0.1 + 0.05 * kHz)% of rdg + 0.1% of rng	SHUNT H : 0.2A range : (0.1 + 0.05 * kHz)% of rdg + 0.12% of rng 2/8/20 A range : (0.1 + 0.05 * kHz)% of rdg + 0.1% of rng SHUNT L : 0.01A range : (0.1 + 0.05 * kHz)% of rdg + 0.25% of rng 0.1/0.4/2 A range : (0.1 + 0.05 * kHz)% of rdg + 0.1% of rng
Power		
Range(W)=Voltage*Current	1.5W ~ 1000W, 12 ranges	1.5W ~ 10kW, 24 ranges
Accuracy *3	47Hz - 63Hz : 0.1% of rdg + 0.1% of rng 15Hz-1kHz : (0.1 + 0.2/PF * kHz)% of rdg+0.18% of rng 300V x 0.01A Range : 0.2% of rdg + 7mW	47Hz - 63Hz : 0.1% of rdg + 0.1% of rng 15Hz-1kHz : (0.1 + 0.2/PF * kHz)% of rdg+0.18% of rng 300V x 0.01A Range : 0.2% of rdg + 7mW
Power Factor accuracy *4	0.006+(0.003/PF) * kHz	0.006+(0.003/PF) * kHz
Frequency		
Range	DC, 15Hz ~ 10kHz	DC, 15Hz ~ 10kHz
Measuring Condition	Voltage (10 ~ 100% of the voltage range)	Voltage (10 ~ 100% of the voltage range)
Others		
Display Resolution	5 Digits	
Display update rate	0.25~2 sec	
Power Supply	90V ~ 130V /180V ~ 250V, 50Hz/ 60Hz, 30VA	
Interface	Option: USB or GPIB+USB	
Operating Temperature	0°C ~ 40°C	
Storage	-40°C ~ 85°C	
Safety & EMC	CE (include EMC & LVD)	
Dimension (H x W x D)	88 x 212 x 348.1 mm / 3.46 x 8.35 x 13.7 inch (excluding projections)	
Weight	3.8 kg / 8.37 lbs	

The specifications are valid only after the power meter is turned on more than one hour in a thermally stable environment.

Note*1 : The maximum measurable current of 66201 is 4 Arms.

Note*2 : The current accuracy applies temperature range $23 \pm 1^\circ\text{C}$ for 0.01A & 0.2A(CF=2). For all the other current ranges, the spec. applied under $23 \pm 5^\circ\text{C}$.

Note*3 : The 300V x 0.01A range is usually used to test No-load condition of UUT.

Note*4 : The PF spec. applies only when the signals are higher then 50% of the selected voltage and current ranges.

Photovoltaic Test Equipment
Semiconductor/IC Test Equipment
LED Test Equipment
LCD/LCM Test Equipment
Video & Color Test Equipment
Optical Inspection Equipment
Power Electronics Test Equipment
Passive Component Test Instruments
Electrical Safety Test Instruments
General Purpose Test Instruments
PXI Instruments & Systems