IV Measurement

IV-M1501

Current-voltage (IV) measurement is a fundamental electrical characterization for device innovation. An IV measurement is a task to obtain the current vs voltage or resistance characteristics by providing a voltage/current stimulus and measuring current/voltage reaction. It is a basic electric measurement and a fundamental way to discover behavior and characterize the following devices.

Semiconductors (ICs, memory, MOS FETs, bipolar transistors, etc.)
Components (LEDs, sensors, resistors, etc.)
Other electronic devices (photovoltaic cell, electric circuit, etc.)

Front view

Back view

According to the trends in electronics strongly demanding more advanced features, lower power consumption and lower cost for next generation devices, it is becoming increasingly important to perform more accurate and precise low-current , low-voltage or low-resistance measurements quicker than ever for the research and development of next-generation devices and their timely deployment. To perform accurate IV measurement, some measurement techniques and knowledge are very important, such as guarding, Kelvin (4-wire) connection and so on, in addition to using appropriate equipment.

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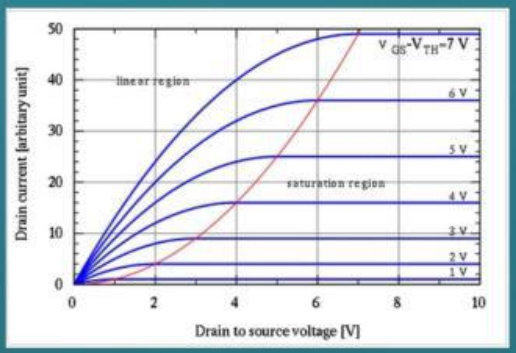
IV Measurement unit consists of 3 parts with following specifications:
1. IVM-15
2. IVM-50
3. PC computer & data acquisition software

IVM-15:
1 Current Measurement input:
range: 100mA,
1 Voltage Measurement input:
range: 15V, Resolution: 0.1mV
2 Programmable Voltage Outputs:
range: 15V
Resolution 1mV
Sampling rate: 10 Sample/Sec

IVM-50:
1 Current Measurement input:
range: 100mA
1 Voltage Measurement input:
Range: 50V, Resolution: 1mV
2 Programmable Voltage Outputs:
range: 50V, Resolution 10mV
Sampling rate: 10 Sample/Sec

Software:
based on Windows7,
capable of plotting and saving all channels versus time or versus other channels, monitoring real time values in software,
Programming output channels individually in software (fixed or ramp mode)



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