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The New Products Journal

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The Purpose of the Journal is to introduce the new products, solutions, and technologies that have been designed and developed in the Engineering City.

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. VCS 1200 – 0.05 SMU – *by YEA Engineering*



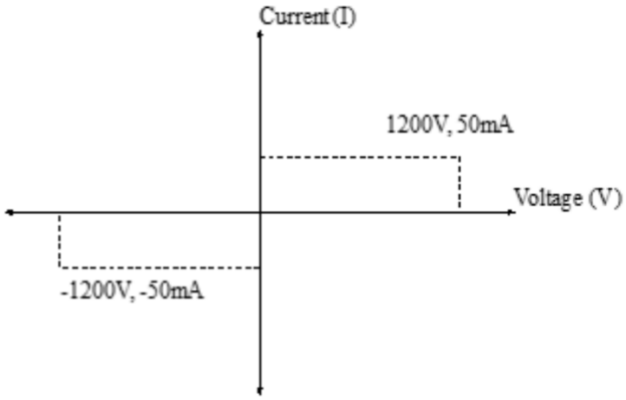
Pic. The VCS 1200 – 0.05 SMU

. Purpose

The VCS1200-0.05 high voltage and current source-meter with (hereinafter referred to as the module) is used as part of the Gamma TSSemi high power semiconductor testers and is designed to set stable DC voltage and DC current values and measure set values.

. Features

- High accuracy
- High resolution
- High-speed sampling rate up to 1 MS/s
- Parallel voltage and current measurement
- Force mode
- Pulse Mode Only (up to 500ms)
- Bandwidth selection (8 positions)
- Compatible with LabVIEW 2020
- Operating system Windows 10
- Interface USB 2
- Power 48 V
- L x W x H : 423.6 mm x 42.5 mm x 233.5 mm



. Specifications Electrical parameters of the VCS1200-0.5 source-measuring device

Parameter	Value
Voltage ranges (pulse mode)	300 V, 600 V, 1200 V, -300 V, -600 V, -1200 V
Current ranges (pulse mode)	5 uA, 50 uA, 500 uA, 5 mA, 50 mA
Accuracy of setting and measuring the current (KR)	± (0.5% of value + 0.5% of range)
Accuracy of setting and measuring the voltage (KR)	± (0.5% of value + 0.5% of range)
Maximum duration of voltage and current output pulse	500 ms
Maximum output current	50 mA
Maximum sampling rate for voltage and current measurements	400 kSa/s

. Voltage source specifications

Range	Resolution	Accuracy
300 V	4.6 mV	± (0.5% of value + 0.5% of range)
600 V	9.1 mV	± (0.5% of value + 0.5% of range)
1200 V	18.3 mv	± (0.5% of value + 0.5% of range)

. Voltage measure specifications

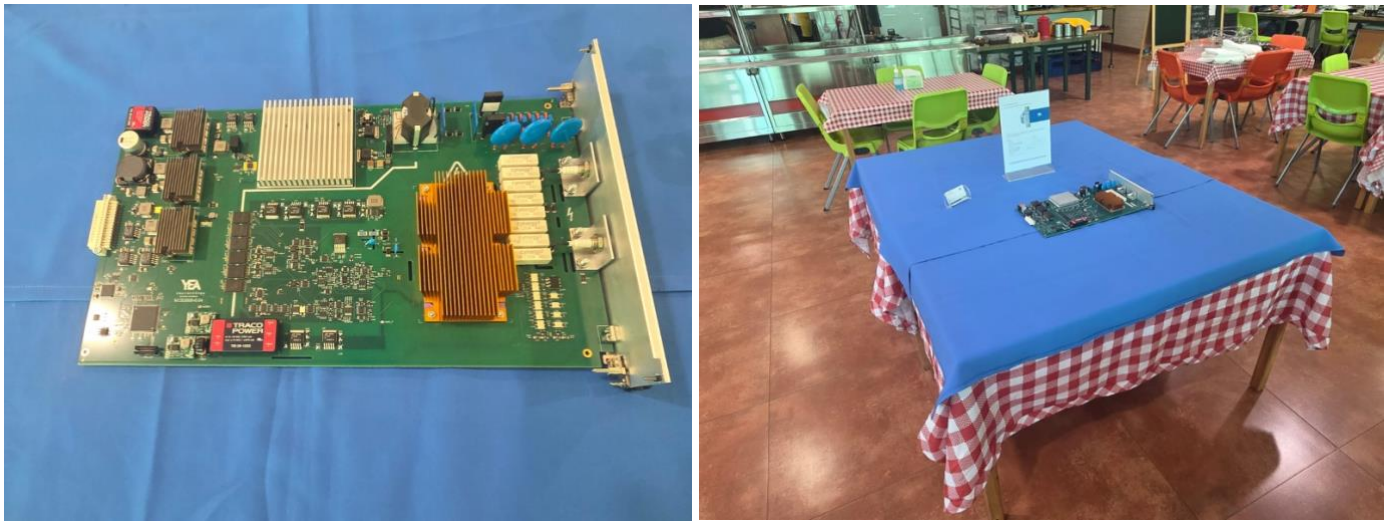
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1200 V	18.3 mv	± (0.5% of value + 0.5% of range)

. Current source specifications

Range	Resolution	Accuracy
5 uA	0.07 nA	± (0.5% of value + 0.5% of range)
50 uA	0.76 nA	± (0.5% of value + 0.5% of range)
500 uA	7.6 nA	± (0.5% of value + 0.5% of range)
5 mA	76.3 nA	± (0.5% of value + 0.5% of range)
50 mA	763 nA	± (0.5% of value + 0.5% of range)

. Current measure specifications

Range	Resolution	Accuracy
5 uA	0.07nA	± (0.5% of value + 0.5% of range)
50 uA	0.76nA	± (0.5% of value + 0.5% of range)
500 uA	7.6nA	± (0.5% of value + 0.5% of range)
5 mA	76.3nA	± (0.5% of value + 0.5% of range)
50 mA	763nA	± (0.5% of value + 0.5% of range)



Pic. Showcasing the SMU in the EC Cafeteria.

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