

The SMU is a kind of feedback circuit, that settles the output by feedback. The Force is a signal line of the SMU. The Sense is a feedback line; if it is connected to Force at a point close to the DUT (sensing point), the SMU works to settle the output voltage at a sensing point in setting voltage through analog feedback. It is a Kelvin connection.

For a high current or low resistance measurement, the Sense is important for reducing measurement errors. The measurement path between the SMU and test device has residual resistance. When high current flows, the voltage drop by the residual resistance is not negligible and it can cause measurement errors. If the Sense is connected with the Force as close as possible to the test device, the SMU works to settle the sensing point in setting voltage, making the voltage drop negligible.

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