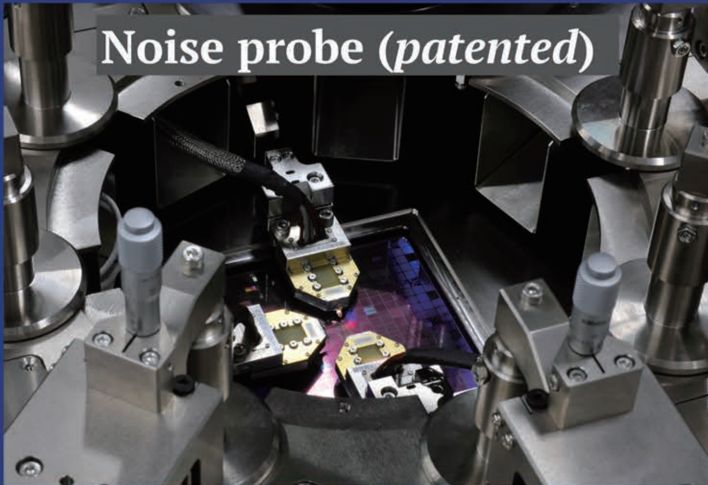
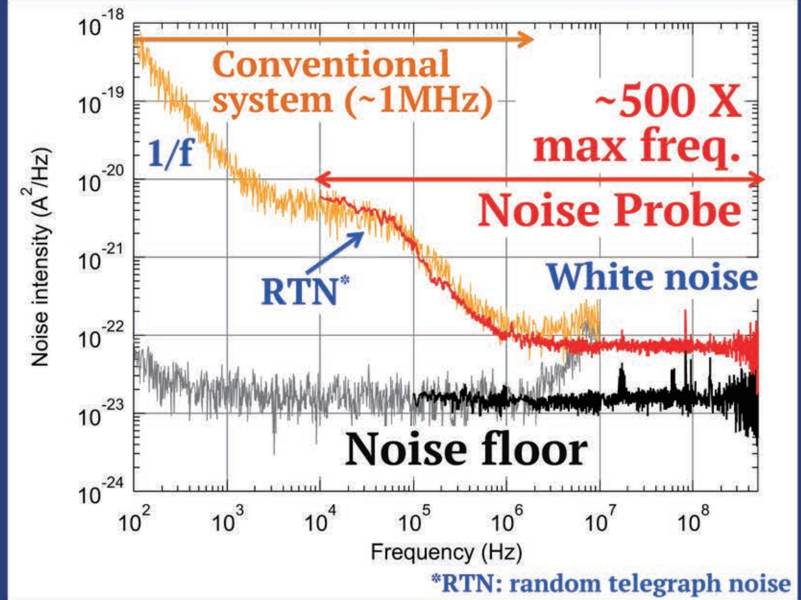
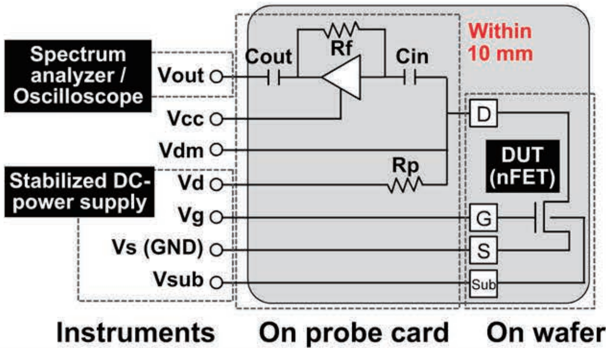
High-Frequency Noise Probe System for MOSFETs and Nano-Electronic Devices ~ Measurement Range from 100 kHz to 800 MHz ~





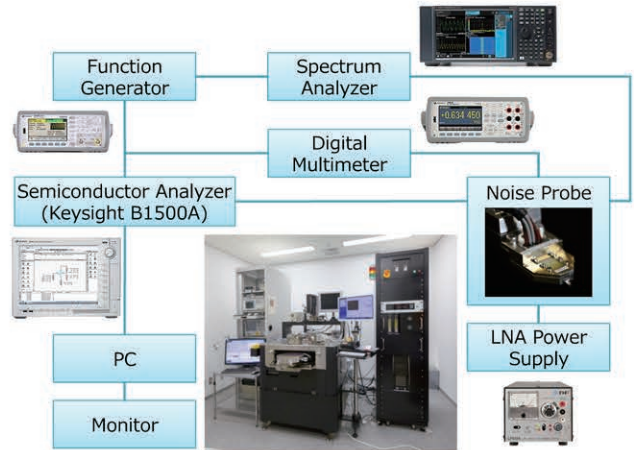
Block diagram



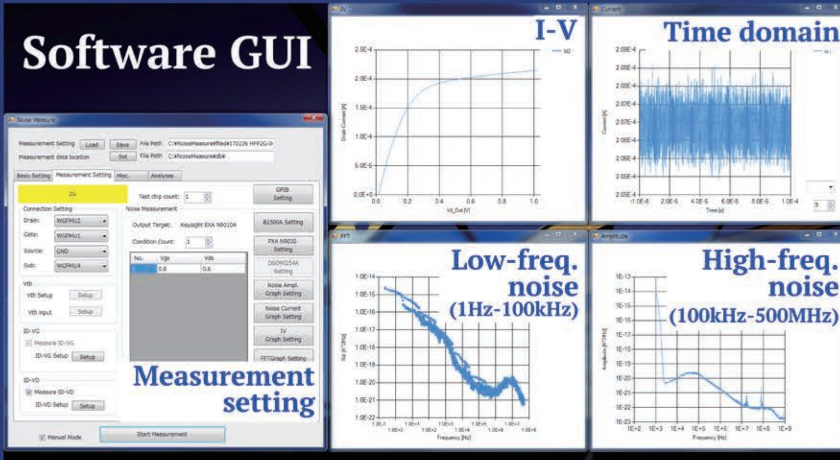
Specification

Type	Frequency	Noise Floor
2G	500 MHz	~2×10^{-23} (A^2/Hz) @ 10 MHz
3G	800 MHz	~1×10^{-22} (A^2/Hz) @ 10 MHz

System configuration



Software GUI



High-Frequency Noise Probe System **is utilized in a probe station and allows you to dramatically extend the frequency range in noise measurement compared to conventional low-frequency (1/f) noise systems. The tip of the probe is customized according to pad layout on a wafer.**

- **Thermal/shot noise evaluation**
- **RTN and 1/f noise measurement in high frequency region (>100MHz)**
- **Better SPICE modeling and circuit design**

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Technical papers

(1) Kenji Ohmori et al., “Application of Low-Noise TIA ICs for Novel Sensing of MOSFET Noise up to the GHz Region”, 2013 VLSI Symposium on Circuits.

(2) K. Ohmori et al., “Continuous characterization of MOSFET from low-frequency noise to thermal noise using a novel measurement system up to 100 MHz”, 2012 VLSI Symposium on Technology.