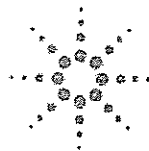
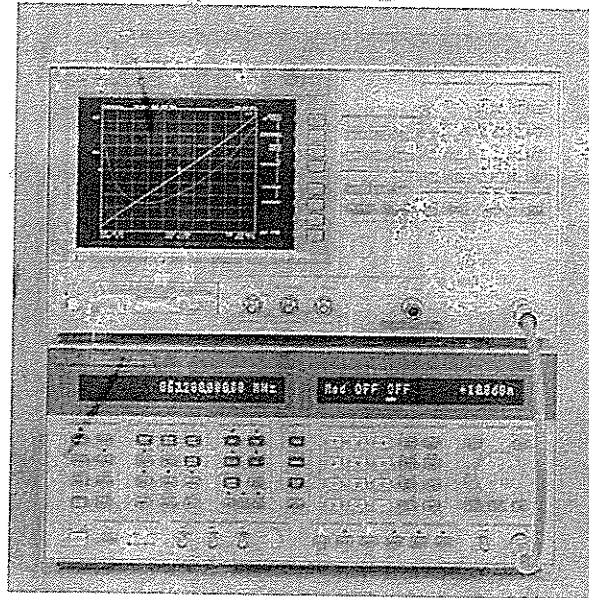


Demonstration of 4352B VCO/PLL Signal Analyzer 4352S VCO/PLL Signal Test System

Akira Yakushiji
CTU-Kobe
Marketing



Agilent Technologies

Objectives

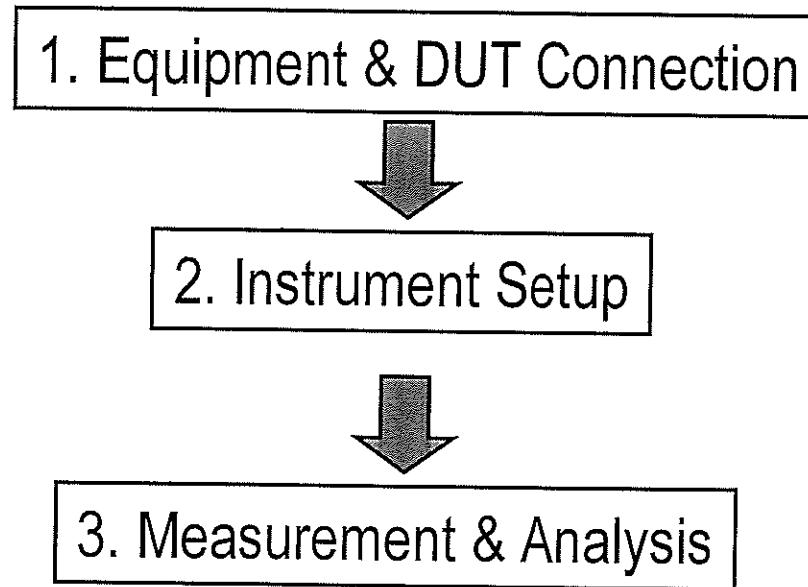
- ✓ Understand basic operation without a real instrument

Agenda

- 1. Fundamental measurement procedure
- 2. Demonstration
VCO Measurement
- 3. Appendix



Fundamental measurement procedure



VCO Measurement

Overview of the demonstration

Objective: Learn a basic procedure of VCO measurements

Equipment: Signal Generator (8665B)

DUT: Voltage Controlled Oscillator (VCO, 180 MHz)



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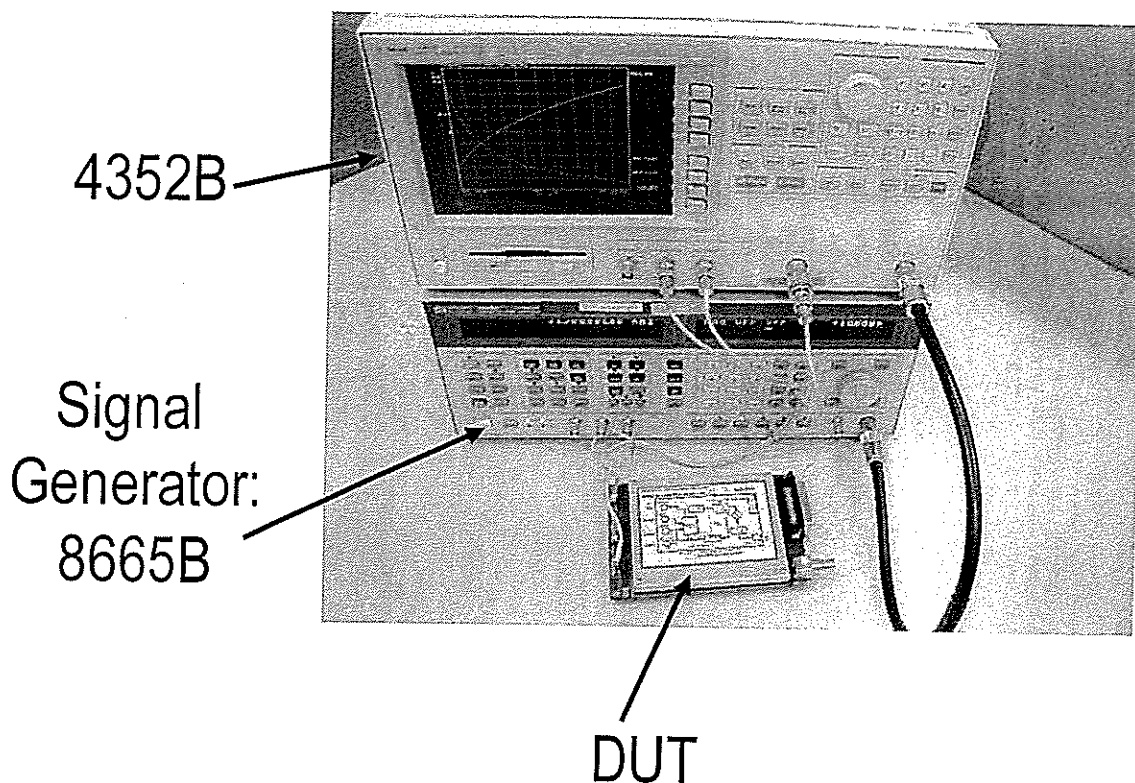
VCO Measurement

1. Equipment and DUT Connection

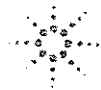
1. Equipment and DUT Connection

2. Instrument Setup

3. Measurement & Analysis



- 1) Connect the 4352B with the signal generator
- 2) Turn the power on
- 3) Connect the DUT



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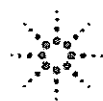
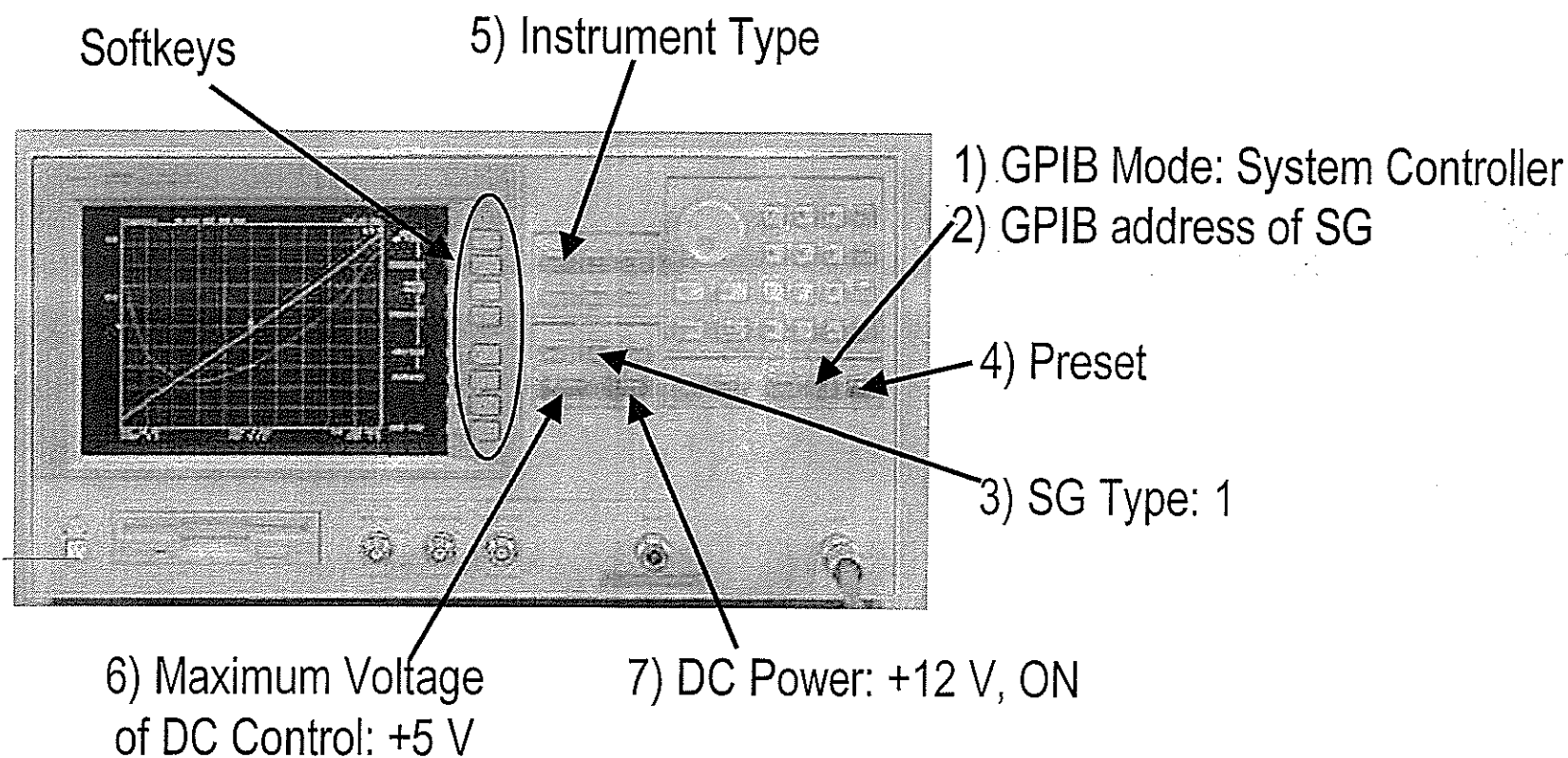
VCO Measurement

1. Equipment and DUT Connection

2. Instrument Setup

3. Measurement & Analysis

2. Instrument Setup



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VCO Measurement

3. Measurement & Analysis

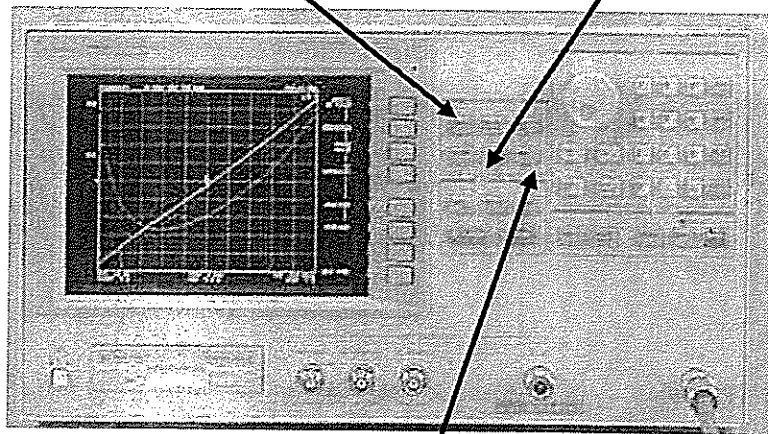
RF Power vs. DC Control Voltage Measurement

1. Equipment and DUT Connection

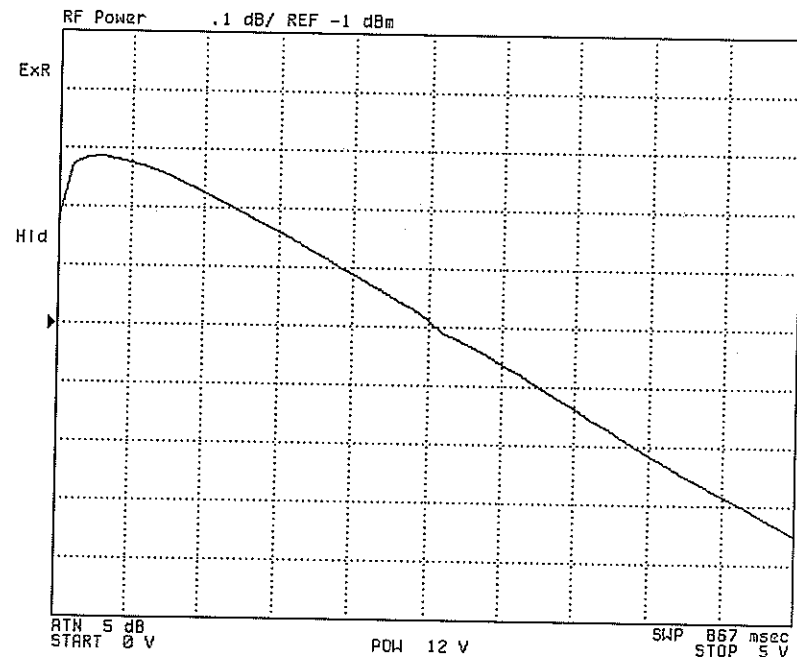
2. Instrument Setup

3. Measurement & Analysis

- 1) Meas. Parameter: RF Power 4) Auto Scale



- 2) Start Voltage of DC Control: 0 V
3) Stop Voltage of DC Control: +5 V



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VCO Measurement

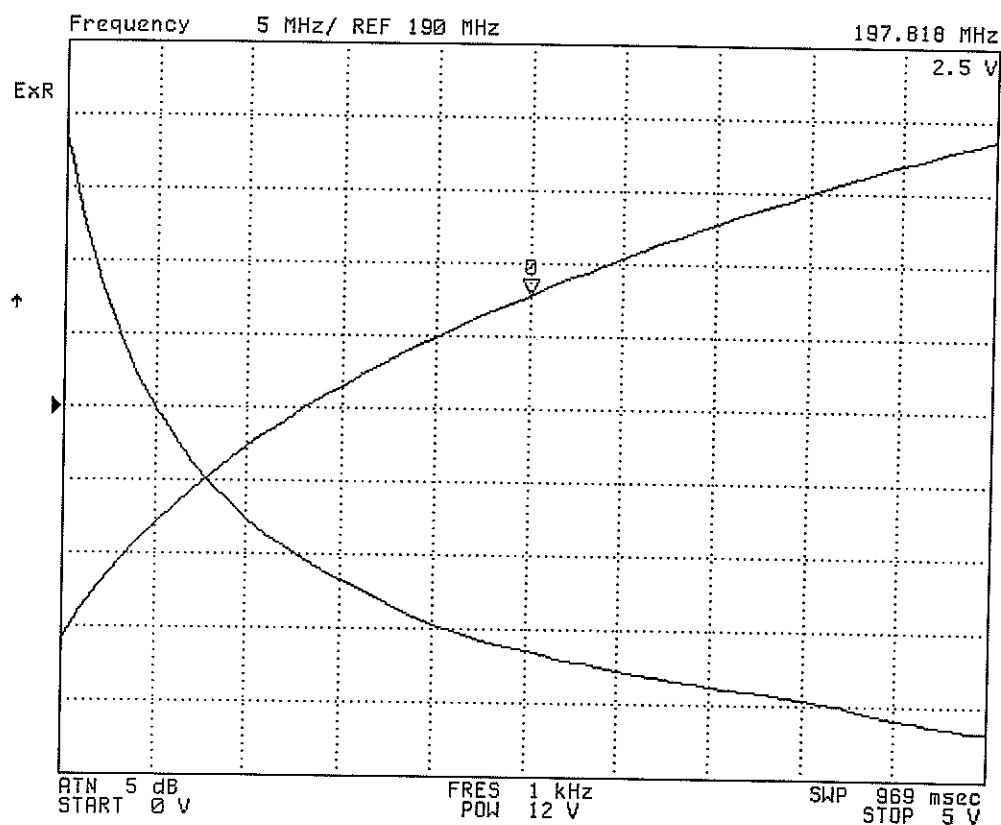
3. Measurement & Analysis

Frequency vs. DC Control Voltage Measurement

1. Equipment and DUT Connection

2. Instrument Setup

3. Measurement & Analysis



Frequency

Tuning Sensitivity



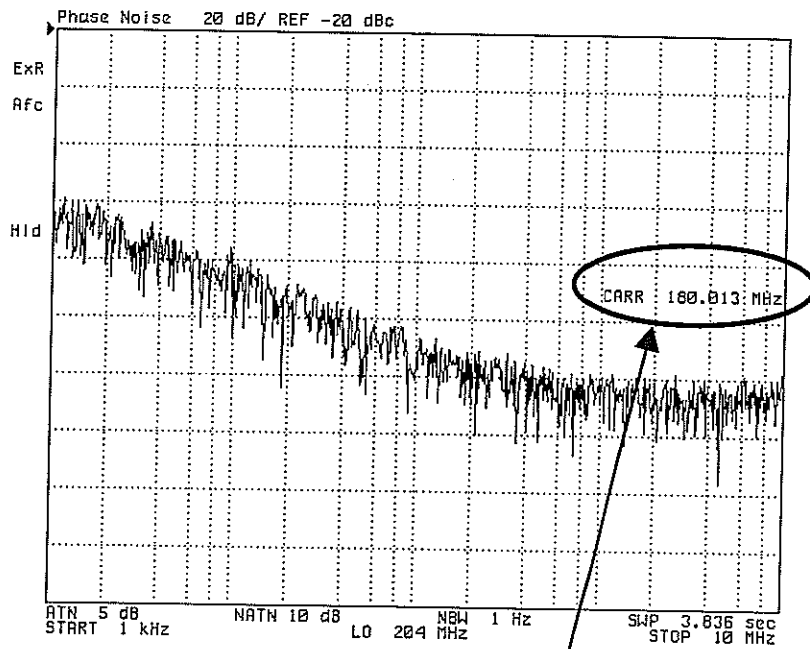
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VCO Measurement

3. Measurement & Analysis

Phase Noise Measurement

Measured result using AFC Function



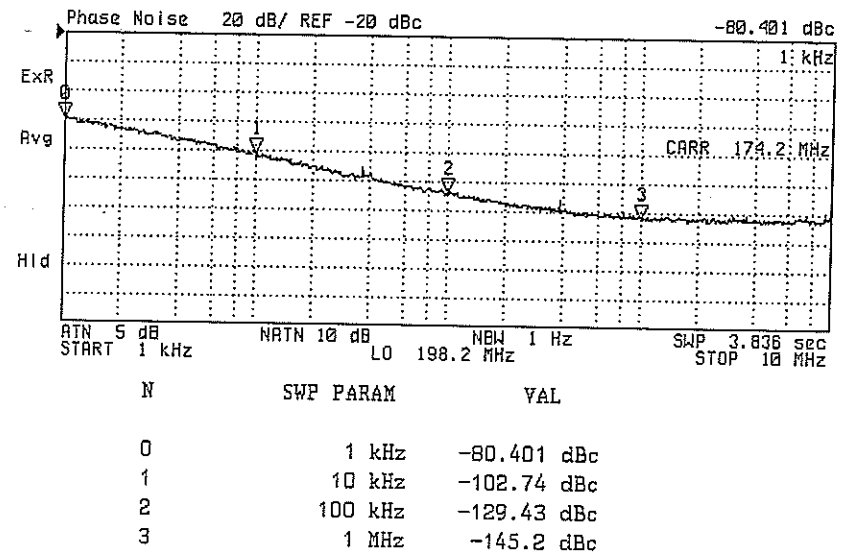
Target frequency

1. Equipment and DUT Connection

2. Instrument Setup

3. Measurement & Analysis

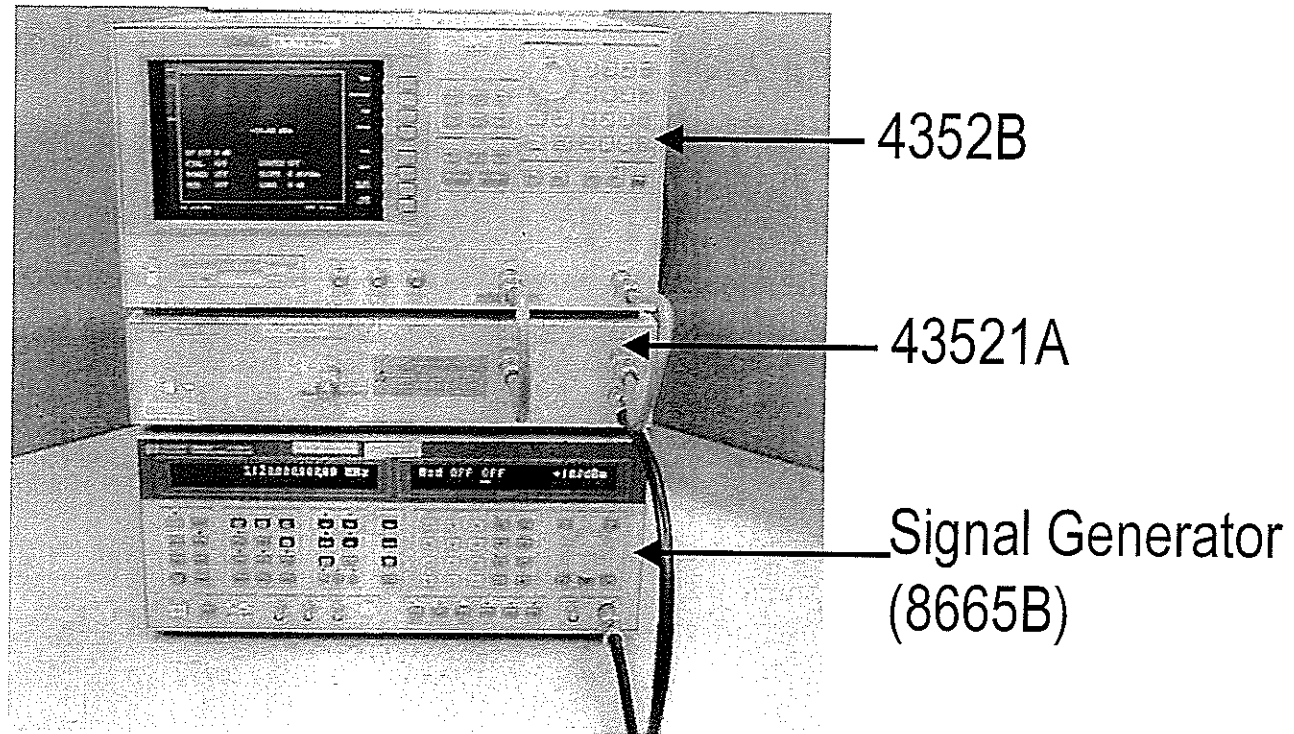
Marker List Function



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Appendix

Measurement Configuration for up to 12.6 GHz



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