

APX 测试简易手册

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测试前需先进行信号路径设置, 根据实际测试产品连线进行选择

Signal Path Setup

Output Configuration

Connector: Analog Unbalanced Settings...

Channels: 2

Input Configuration

Connector: Analog Settings...

Channels: 2 ☐ Acoustic Labels...

☒ Track First Channel Settings

Channel	Connector	Termination	AC
Ch1	Unbalanced	100 kOhm	<input checked="" type="checkbox"/>

Bandwidth: 90 kHz

Device Under Test

Delay: 0.000 s

Verify Connections

Generator On

Waveform: Sine

Test Channel: All Channels

Level: 100.0 mVrms

Frequency: 1.00000 kHz

Advanced Settings... Switcher Settings...

可增加信号路径, 进行顺序测试, 此功能在产线上非常实用。

输出信号方式

测试信号路径

输入分析仪的信号方式

输入端的阻抗, 一般为高阻

信号耦合方式, 一般为AC

测试带宽, 一般选择90k Hz

信号源开关

信号的基本属性, 用键盘输入进行更改

测试项目列表, 可打上勾, 进行顺序测试

增加测试项目, 所有测试项目在此增加

测试报告, 可根据需求生成不同格式文件

顺序测试启动开关, 在产线上非常实用

信号监控, 可看波形, 频谱, 信号强度, 失真值等。

此功能对电脑配置要求较高, 如非必要建议关掉此功能

FFI Spectrum Monitor

Level [Vrms]

Frequency [Hz]

Output: Analog Unbalanced 2 Ch, 50 Ohm Input: Analog Unbalanced 2 Ch, 100 kOhm 90 kHz 320.0 mVrms

信号路径的设置

蓝牙播放器测试

1. 在信号源路径中选择 **bluetooth**.
2. 点击 **settings** 进行配对连接。
3. 选择 **A2DP Source HSP**
4. 点击 **Scan for devices** 搜索被测产品
5. 点击 **pair** 进行配对
6. 连接 **A2DP** 协议
7. 开始测试相关测试项目

蓝牙播放器测试

连接协议

1. 蓝牙播放器：选择HSP Target

2. 扫描被测产品，

3. 配对

4. 协议

5.

5.

Ch1

Ch2

100u

10

100

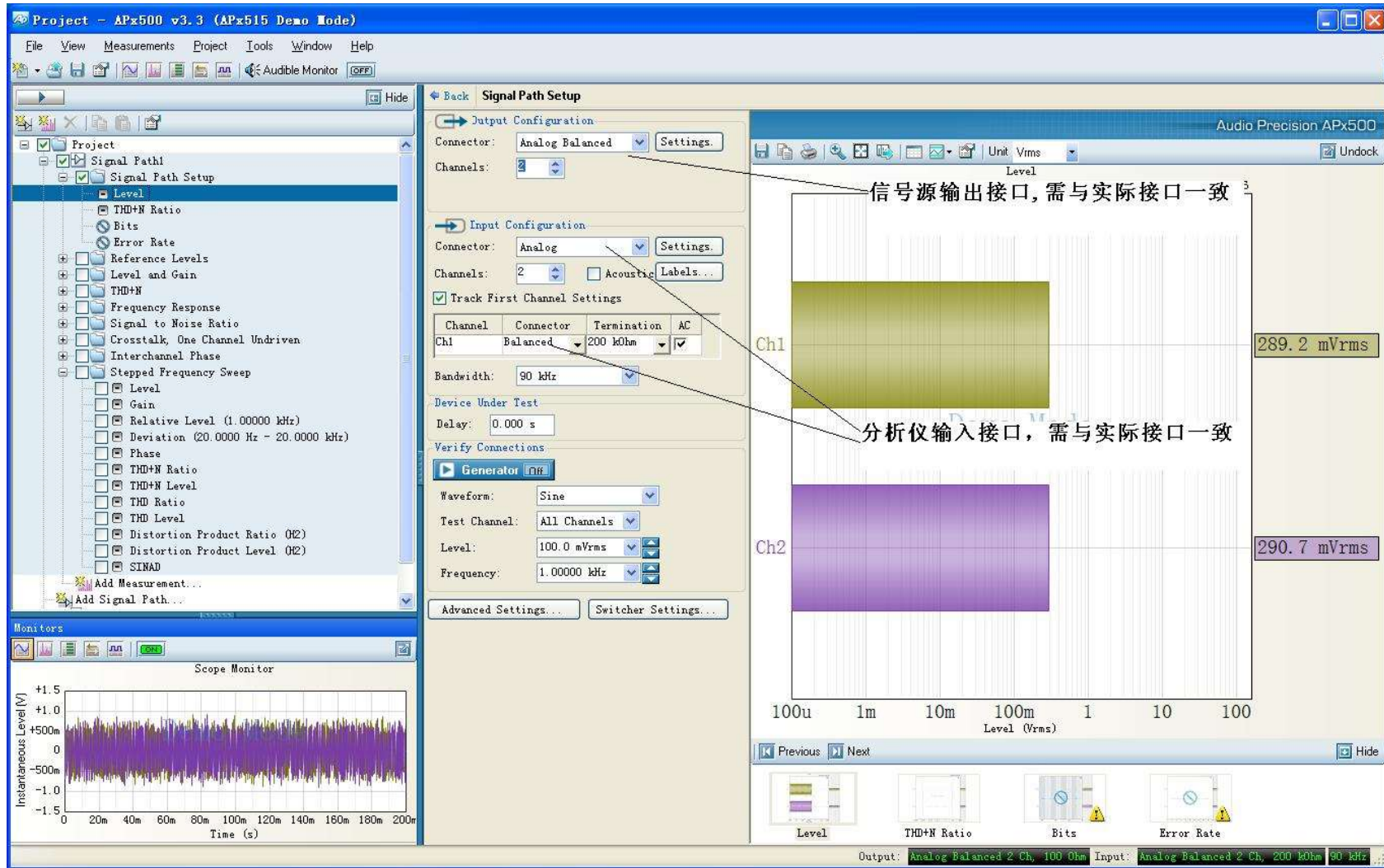
The image shows a software interface for signal path setup and Bluetooth configuration. The main window is titled 'Signal Path Setup' and has a 'Bluetooth' connector selected in the 'Output Configuration' section. Below this, the 'Input Configuration' section shows 'Analog Unbalanced' selected. The 'Device Under Test' section shows 'Waveform: Sine', 'Test Channel: All Channels', 'Level: -20.000 dBFS', and 'Frequency: 1.00000 kHz'. The 'Verify Connections' section shows 'Generator: Off'. The 'Monitors' section shows 'FFT Spectrum Monitor'. A 'Bluetooth Settings' dialog box is open, showing the 'A2DP Source HSP Audio Gateway' selected. The 'Scan Duration' is set to 5 seconds. The 'Scan For Devices' button is highlighted. The 'Pair' button is also highlighted. The 'Interface Settings' section shows 'A2DP' selected, with 'Auto Discoverable/Pair/Connect' checked. The 'A2DP' and 'AVRCP' protocols are checked. The 'SSP Mode' is set to 'Just Works'. The 'Audio Coupling' is set to 'AC'. The 'Friendly Name' is 'APX2-27478'. The 'Address' is '00:07:80:4c:3d:4f'. The 'AFx Pin' is '0000'. The 'Device Class' is 'Auto (00020C)'. A warning message at the bottom states: 'WARNING: The A2DP profile may occasionally exhibit a ± 1 sample phase error between channels.'

1. Input Configuraton 路径设置 为 bluetooth
2. 点击 settings 进行配对连接。
3. 选择 A2DP link (Hand-free 或者 headset)
4. 点击 Scan for devices 搜索被测产品
5. 点击 pair 进行配对
6. 连接 A2DP 协议
7. 开始测试相关测试项目



功放测试

1. 根据实际接线，设置信号源的输出信号方式
2. 根据实际接线，设置分析仪的输入信号方式



DVD、CD 的测试

1. 信号源设为 none
2. 分析仪接口设置与实际接线方式一致。

信号路径设置

信号源接口设置，CD类设为None

分析仪接口根据实际接线设置相对应接法

测试最大频率，一般设置为90K

测试前须先根据实际情况设置测试路径参数

The screenshot displays the APx500 v2.9 software interface. The 'Signal Path Setup' window is open, showing 'Output Configuration' with 'Connector' set to 'None (External)' and 'Input Configuration' with 'Connector' set to 'Analog Unbalance', 'Channels' set to 2, and 'Bandwidth' set to 90 kHz. The 'Device Under Test Settings' section shows a 'Delay' of 0.000 s. The 'Monitors' section shows the 'FFT Spectrum Monitor' with a log-log plot of Level (Vrms) vs Frequency (Hz). The plot shows a 'Demo Mode' watermark and the text 'Signal monitors are off.' The 'Level' section shows two channels: Ch1 at 291.7 mVrms and Ch2 at 290.0 mVrms. The status bar at the bottom indicates 'Output: External' and 'Input: Analog Unbalanced 2 Ch, 100 kOhm 90 kHz'.

Project - APx500 v2.9

File View Measurements Project Tools Window Help

Hide

Project

Signal Path

Signal Path Setup

Signal Path Diagnostics

Reference Levels

Level and Gain

THD+N

Frequency Response

Signal to Noise Ratio

Crosstalk, One Channel Undriven

Interchannel Phase

Add Measurement...

Add Signal Path...

Report

Data Output

Monitors

FFT Spectrum Monitor

Level (Vrms)

Frequency (Hz)

20 50 100 200 500 1k 2k 5k 10k 20k

1 1m 1u

Demo Mode

Signal monitors are off.

Signal Path Setup

Output Configuration

Connector: None (External)

Settings...

Input Configuration

Loopback

Connector: Analog Unbalance

Settings...

Channels: 2

Labels...

Bandwidth: 90 kHz

Device Under Test Settings

Delay: 0.000 s

Back

Switcher Settings...

Verify Connections

Refer to the Help file for information about compatible signal sources.

Level

2012-5-11 11:10:30

Ch1

291.7 mVrms

Ch2

290.0 mVrms

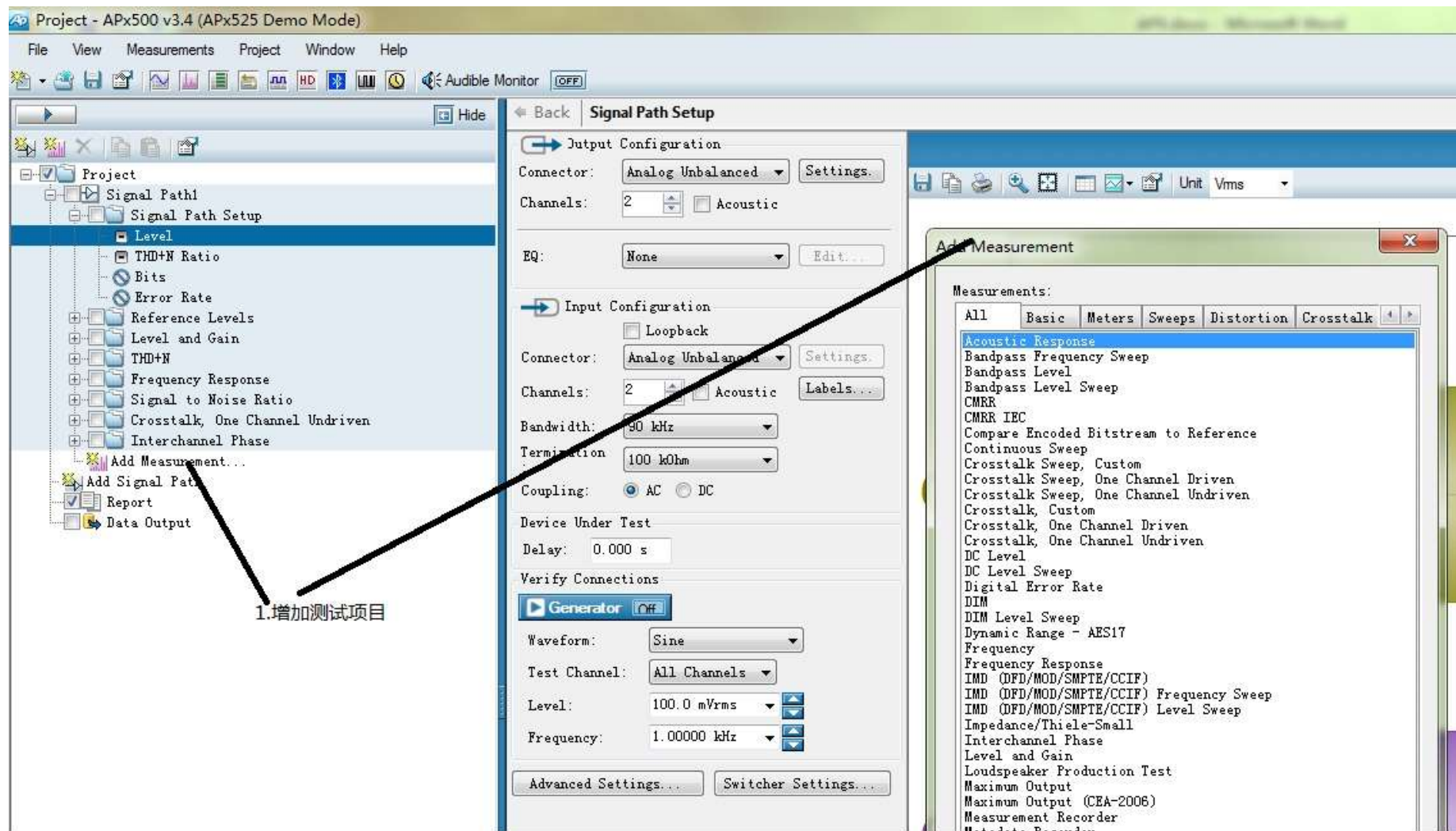
100u 1m 10m 100m 1 10 100

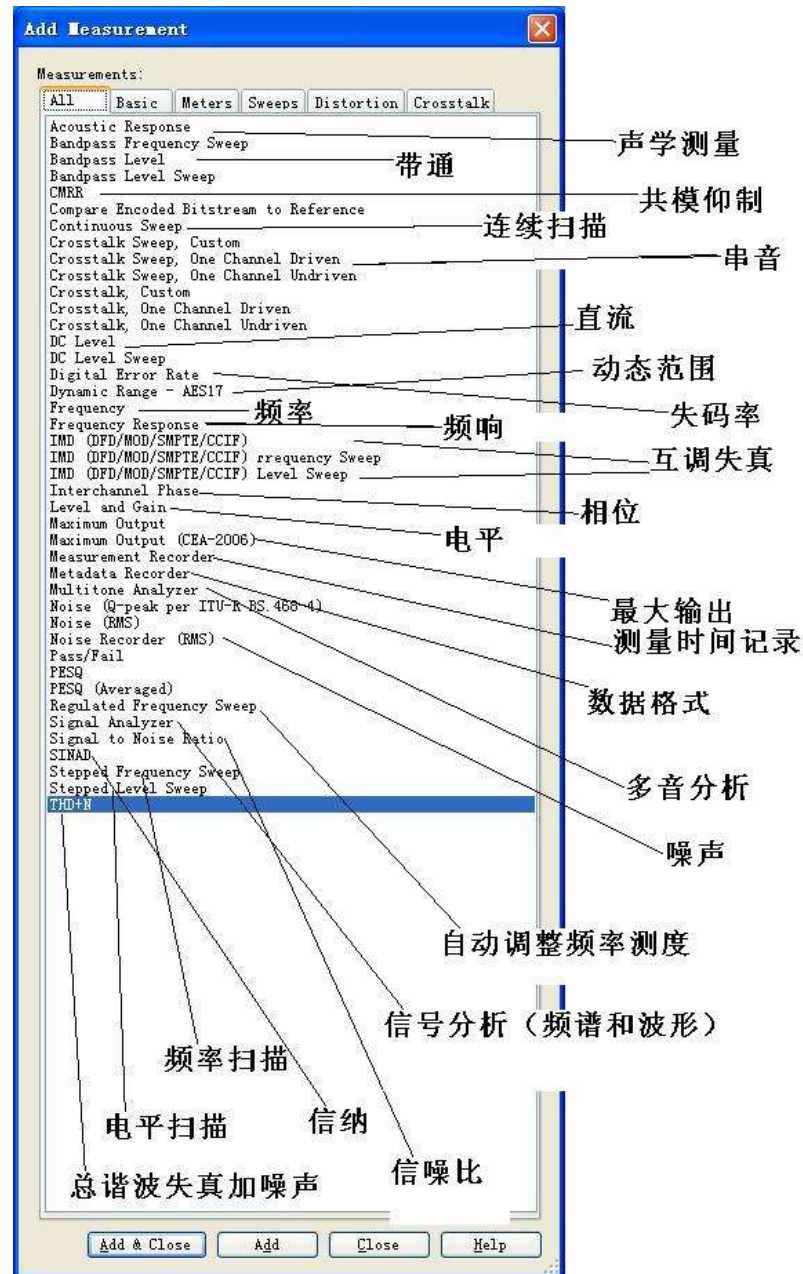
Level (Vrms)

Output: External Input: Analog Unbalanced 2 Ch, 100 kOhm 90 kHz

选择测试项目

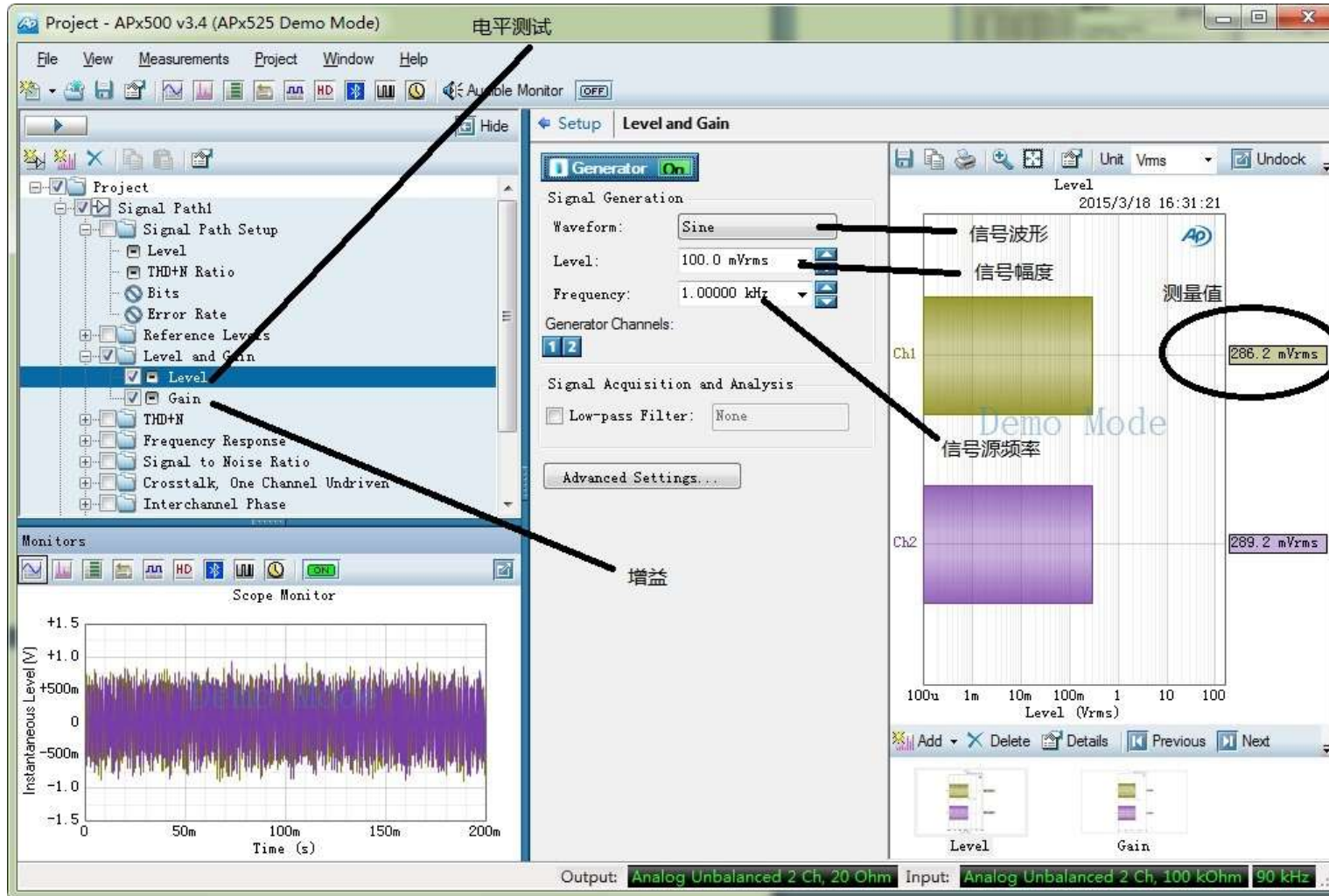
根据测试需求增加项目





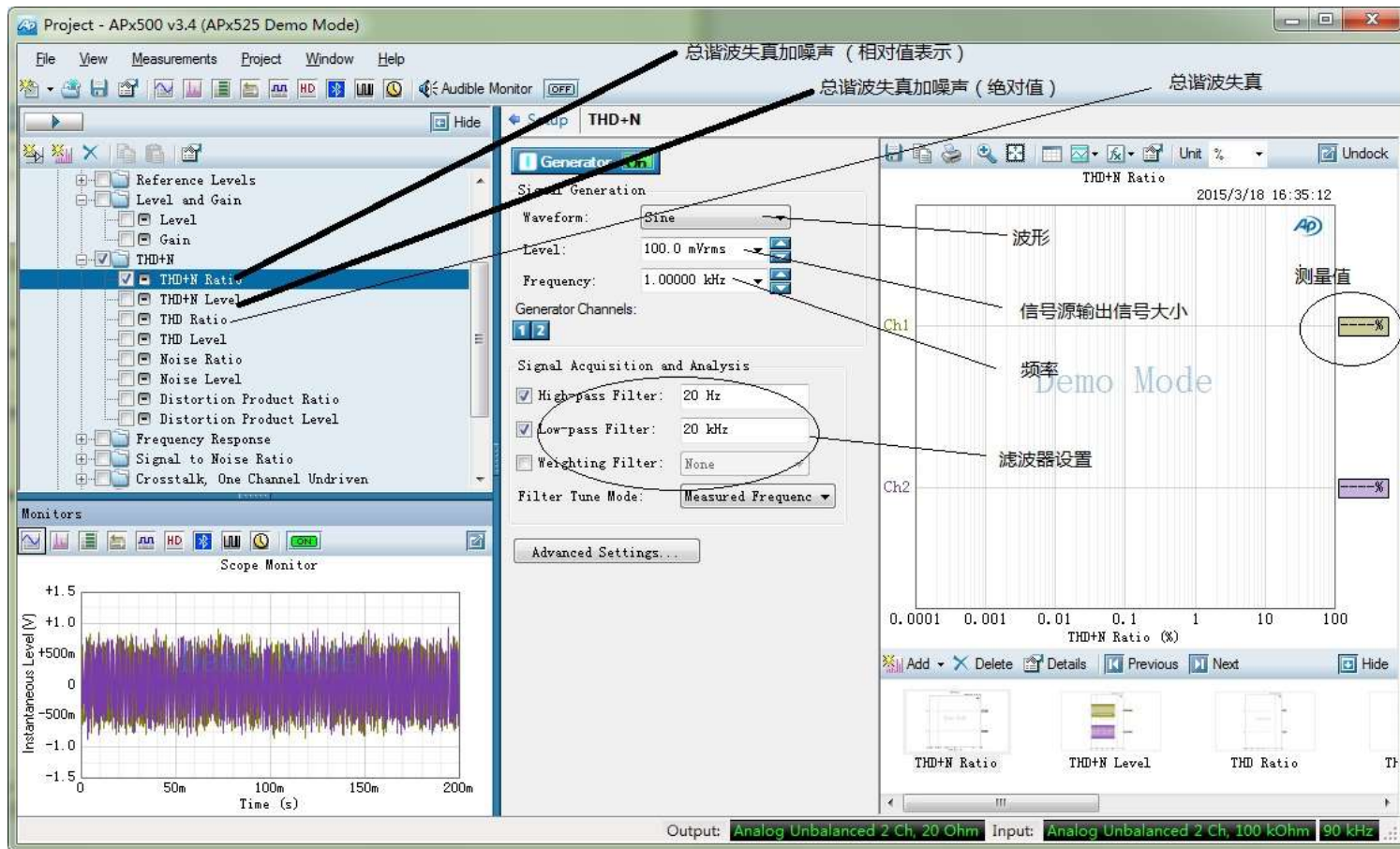
电平测试

1. 设置信号源输出波形
2. 设置信号源大小
3. 设置信号源频率
4. 打开信号源开关
5. 读取测量值



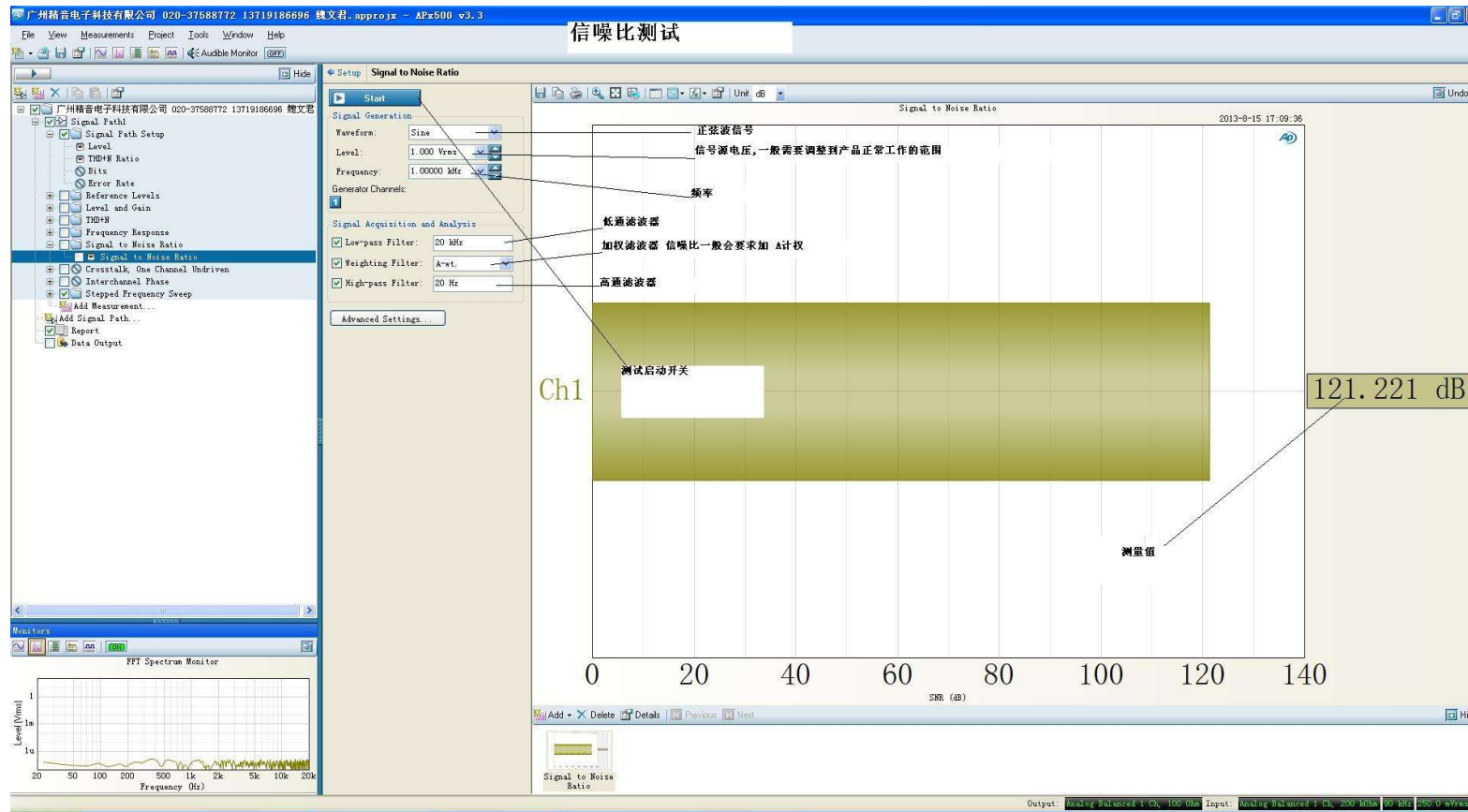
失真测试

- 1 设置信号源输出波形,
- 2 设置信号源大小
- 3 设置信号源频率
- 4 打开信号源开关
- 5 按需求设置滤波器
- 6 读取测量值



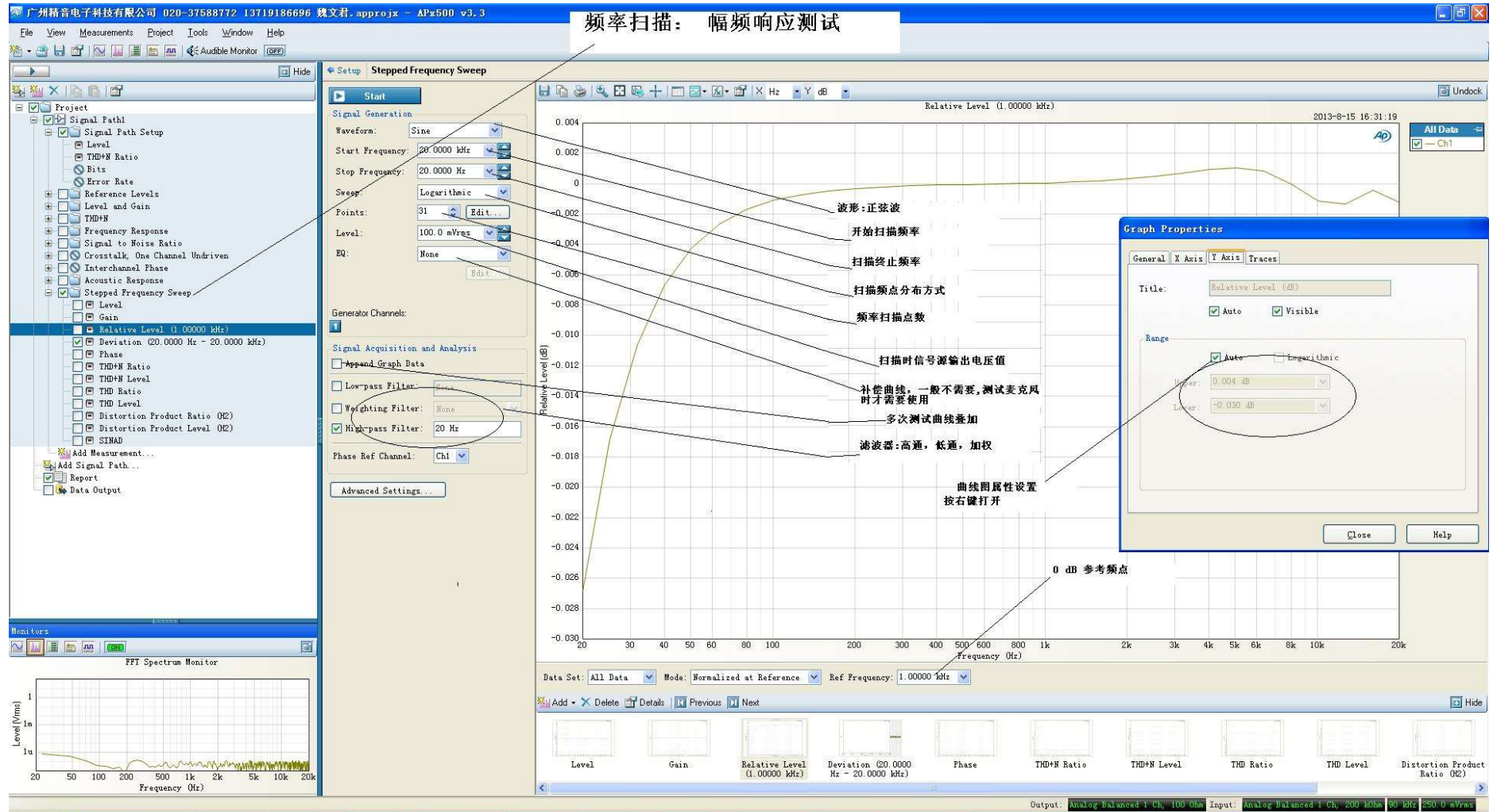
信噪比测试

- 1 设置信号源输出波形
- 2 设置信号源大小
- 3 设置信号源频率
- 4 打开信号源开关
- 5 按需求设置滤波器
- 6 读取测量值



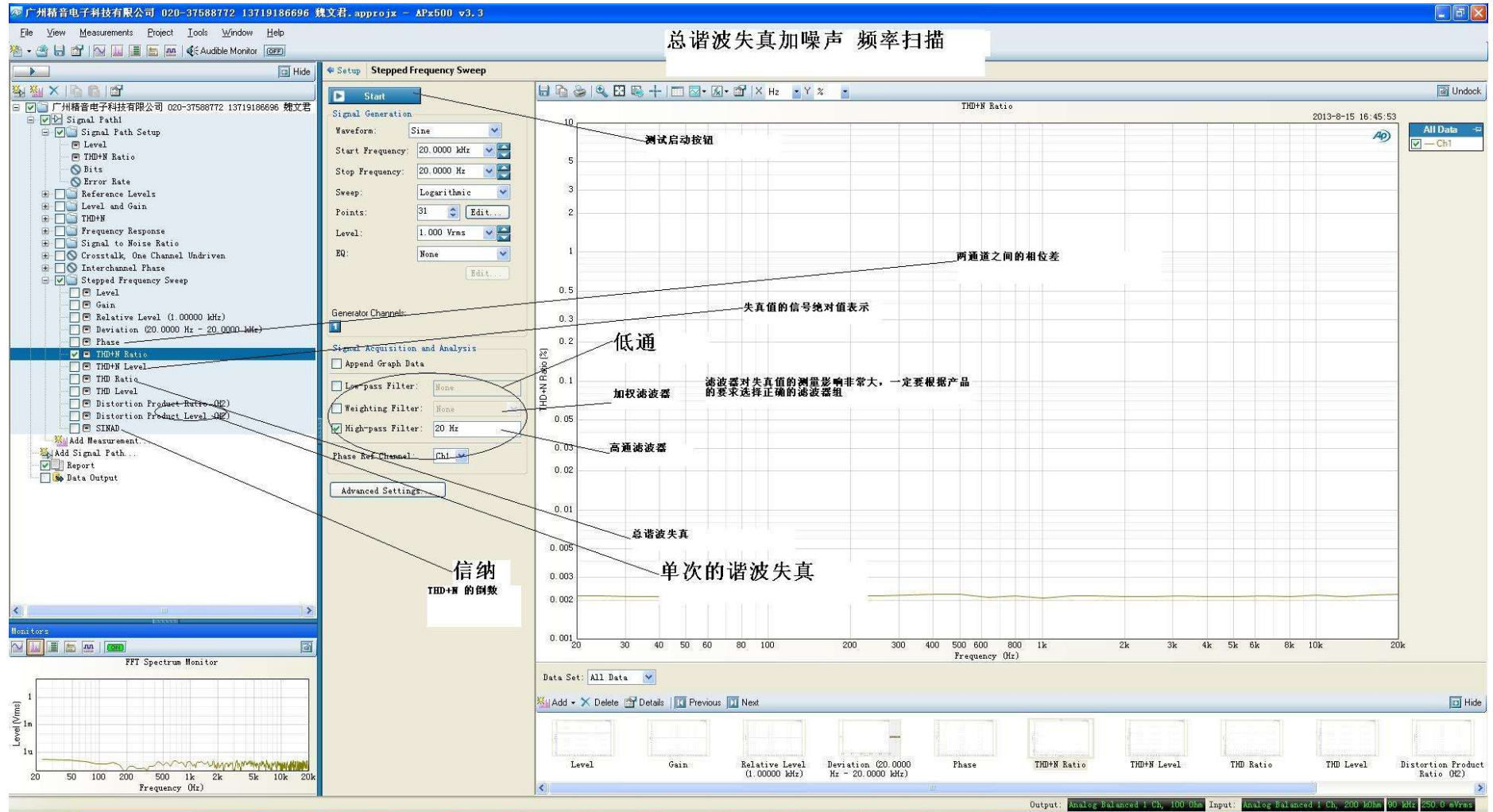
频率扫描测试

1. 设置信号源波形
2. 设置信号源大小
3. 设置信号源开始频率，结束频率，扫描点数
4. 设置滤波器
5. 点击 Start 开始测试。



总谐波失真加噪声 频率扫描测试

- 1 设置信号源波形
- 2 设置信号源大小
- 3 设置信号源开始频率，结束频率，扫描点数
- 4 设置滤波器
- 5 点击 Start 开始测试



生成测试报告

