

## Outline:

It introduces the control technique of simultaneous measurement of two items that is the feature of 2ch Spectrum Analyzer (SPA). Moreover, measuring time between 1ch and 2ch can be compared. Additionally, there is a control sample of CH1 and CH2, and the appearance into which the screen changes depending on a set mode is understood.

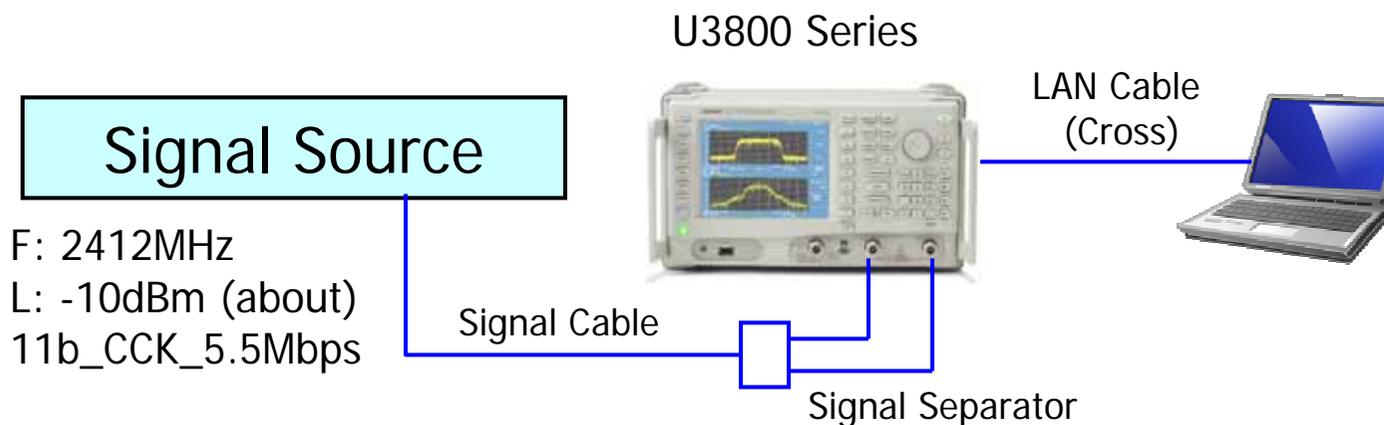
## Measurement item:

Refer to the small electric power data communications system (WLAN) measurement of TELEC. (Telecom Engineering Center)  
Please correct it by the usage.

## Measurement method:

Set Center Frequency and Reference Level and Sweep Time. Default of the Sweep Time is 1 second for burst signal. (It is for a analog spectrum analyzer.)

## 2. U3800 LAN\_CH1CH2 Connection



1. Connect the Signal Source (WLAN:11b\_CCK\_5.5Mbps)  
This software works even if there is no signal.
2. Measuring time of the combination measurement and the single measurement can be compared. It shows high precision and the high stability of the channel power measurement.
3. The measurement screen of CH1 and CH2 is seen in the channel switch.

# 3. Measuring process and panel

Execute sample software

1) Set IP Address

2) Connect

3) Measure

The screenshot shows the software interface for the U3800 LAN CH1CH2 Power Ver. 1.0. The interface is divided into several sections:

- Top Section:** A yellow button labeled "Meas All (Using CH1+CH2)" is highlighted with a red bracket and the number "3)". To its right is a yellow "Total Time (sec)" display. Further right is a "Continuity" checkbox and a "Meas Stop" button with the text "(After All Items)" below it.
- Middle Section:** A cyan bracket and the number "3)" point to a group of six cyan buttons: "Channel Power", "OBW (<26M)", "Spurious(2Bands)", "SBW (>500k)", "Frequency", and "AVG Power (1M)". Each button has a "Time" input field set to "0". To the right of this group is a cyan "Total Time (sec)" display and a "Clear" button. Further right, a red bracket and the number "1)" point to an "IP Address:" input field containing "192.168.0.1". A red bracket and the number "2)" point to a green "Connect" button and a pink "Local" button below it.
- Bottom Section:** A large empty white area on the left. On the right, a pink box titled "SPA Conditions" contains input fields for "Frequency" (2412 MHz), "Ref.Level" (20 dBm), and "Sweep Time" (1000 m sec). Below this are "Preset", "Select SPA" (with radio buttons for "U3841/51" and "U3872"), "SCRF ON", and "SCRF OFF" buttons. At the bottom are "SPLIT", "Overlay", "Full CH1", "Full CH2", "Dual ON", and "Dual OFF" buttons.

## 4. Measuring process and main key



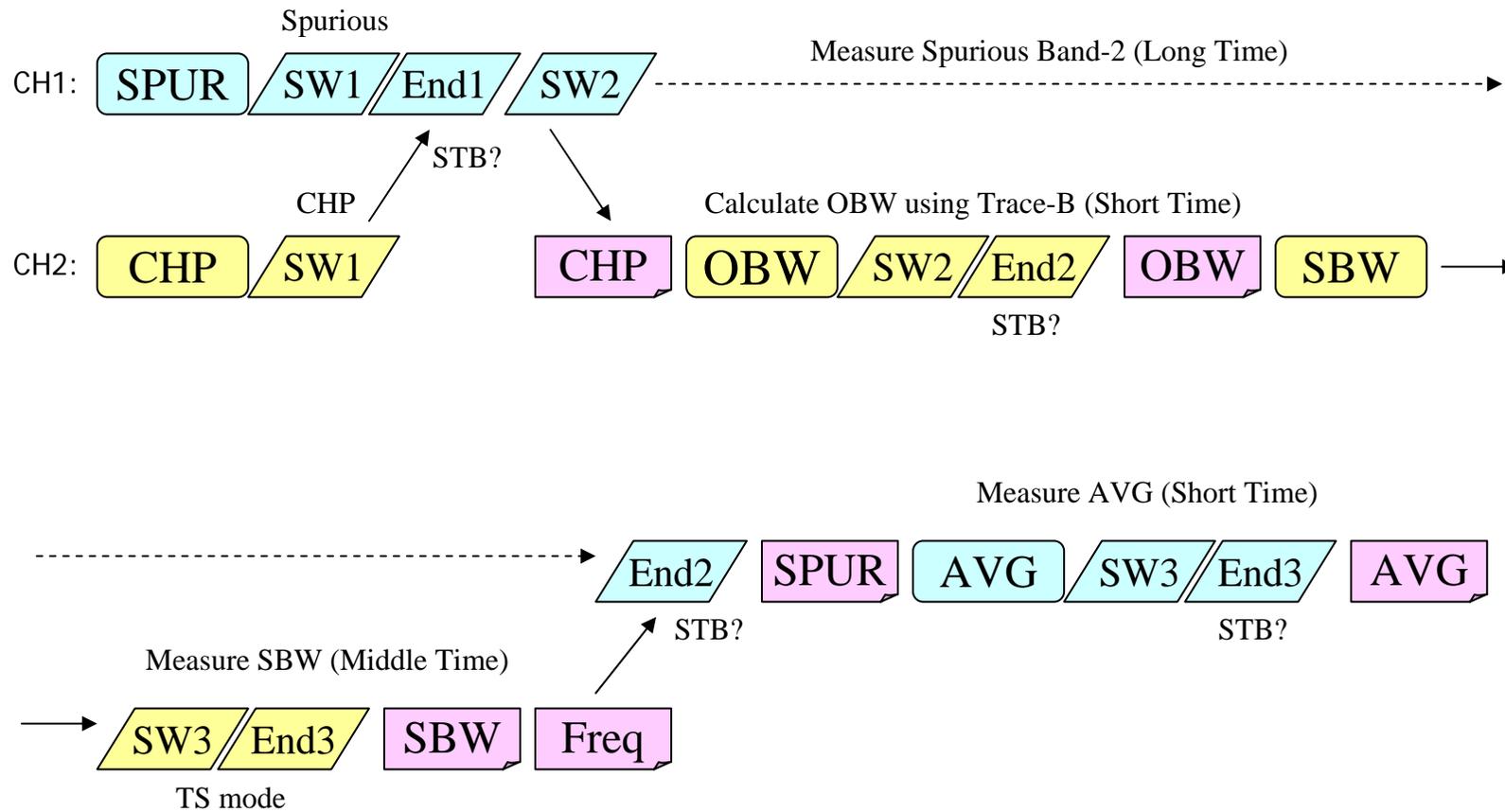
### Execute the application software and measurement:

1. Execute the application software: Select U3800 LAN\_CH1CH2
2. Confirm the IP address, or set IP address. (Default is 192.168.0.1)
3. Set SPA initialization if you want. (Select U3841/51 or U3872)
4. The batch measurement is done with Meas ALL.  
Or it individually measures it with the individual item key.
5. You can see each measuring time.
6. Measuring time changes somewhat by the condition of SPA.  
Please measure it several times.
7. The end is EXIT key.

### Other keys:

- a. Set data to SPA is applied to a necessary channel.
- b. Please execute the Preset key after selecting the model.  
Additionally, the mode of the SPA screen can be confirmed to keys such as SPLIT and Overlay.
- c. Continuity is ON/OFF of the continuity measurement.  
(However, only the Meas All operates. )  
After the measurement ends, it automatically becomes turning off.

# Appendix1: Combinational example



# Appendix2: WLAN Frequency Bands **ADVANTEST**

