

# Introduction to Real-Time Spectrum Analysis – Seamless Signal Capturing

Edward Pan

[edward.pan@rigol.com](mailto:edward.pan@rigol.com)



RIGOL TECHNOLOGIES, INC.

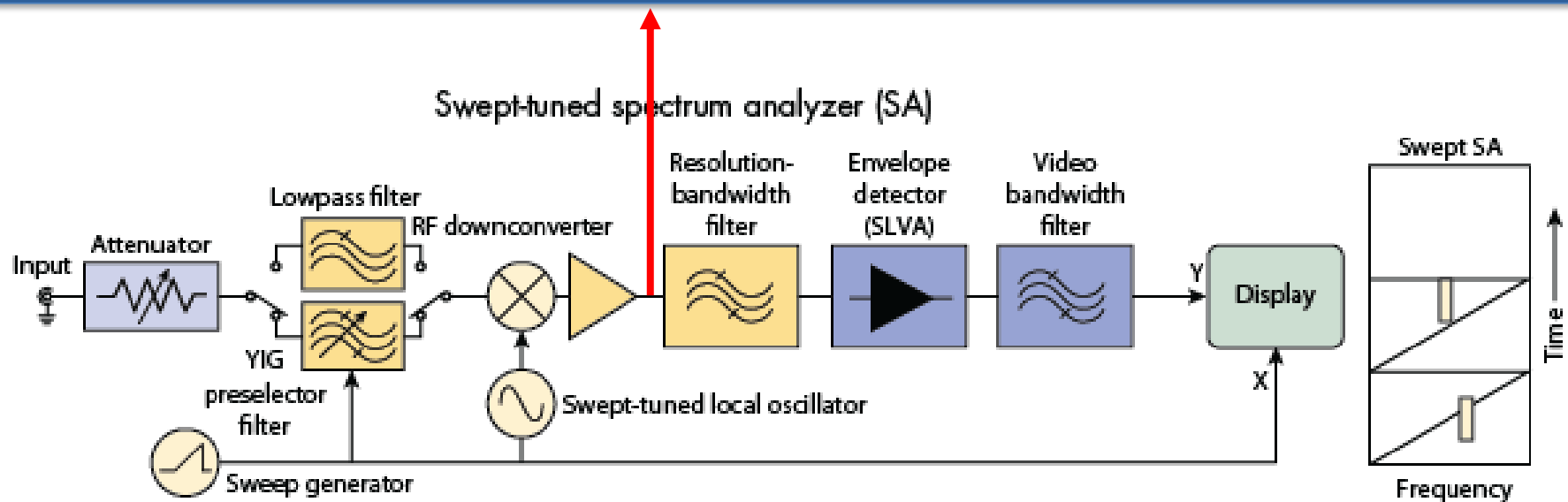
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# Basic Concept

## SSC ( Seamless Signal Capturing )

Traditionally, it's hard to capture intermittent Spectrum by Swept Spectrum Analyzer due to the slower swept speed periodically. Now we can use the front end real bandwidth of spectrum Analyzer to realize the real-time inspection accordingly.

Use **1.5MHz front end bandwidth** to capture the signal and implement FFT to get the real-time result



# Main Applications

The SSC function will be mainly implemented for Vehicle remote controller signal measurement, tire inspection or toy remote controller etc.



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# Feature/Advantage/Benefit



## Feature:

1. Use traditional swept spectrum analyzer
2. 1.5MHz Real-time bandwidth
3. ASK/FSK Spectrum Capturing

## Advantage:

1. Fast signal capturing and data acquisition.
2. Easy for use.

## Benefit:

1. Efficiently capturing vehicle remote controller signal timely.
2. Clear result table to find root causes of signal bugs.

# Required Equipment List



1. DSA815/710/705 Spectrum Analyzer
2. SSC-DSA Option
3. NFP-3 Near Field Probe Set
4. Device Under Test ( Vehicle Remote Key Controller )



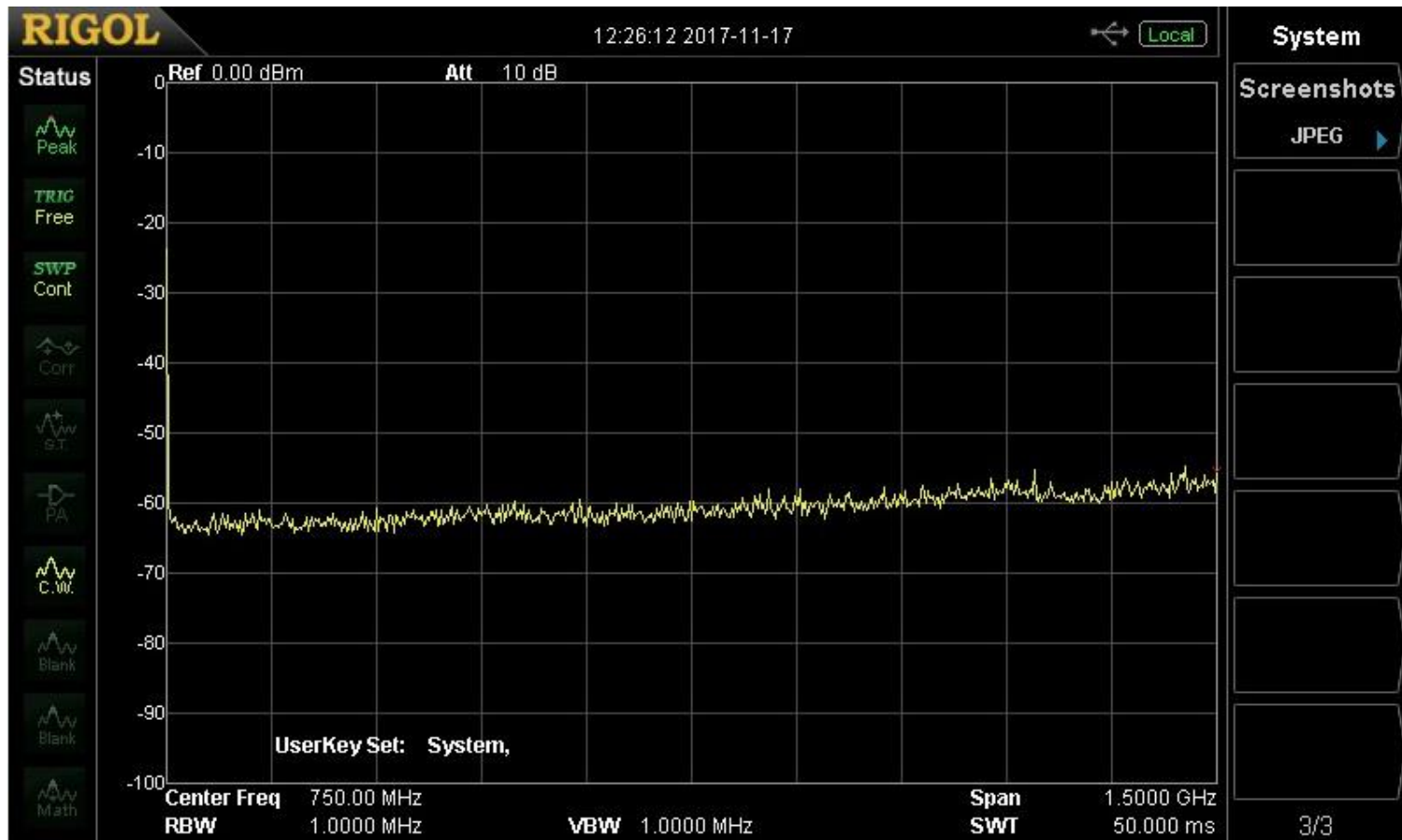
# SSC Measurement

1. Connect the NFP-3 Near field probe to DSA815 as below Diagram indicated.



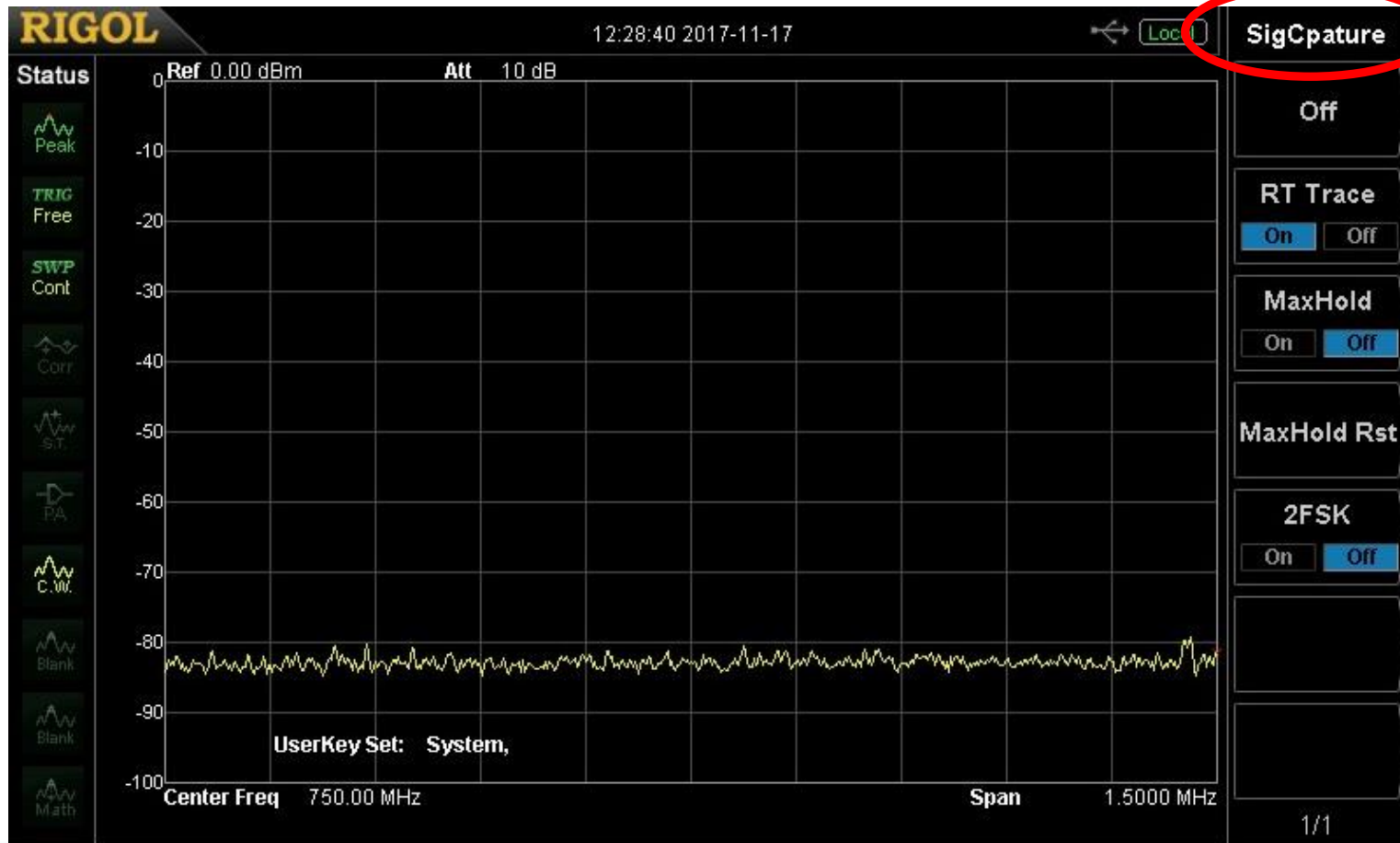
# SSC Measurement

2. Press “Preset” on DSA815 and back to the default setup environment



# SSC Measurement

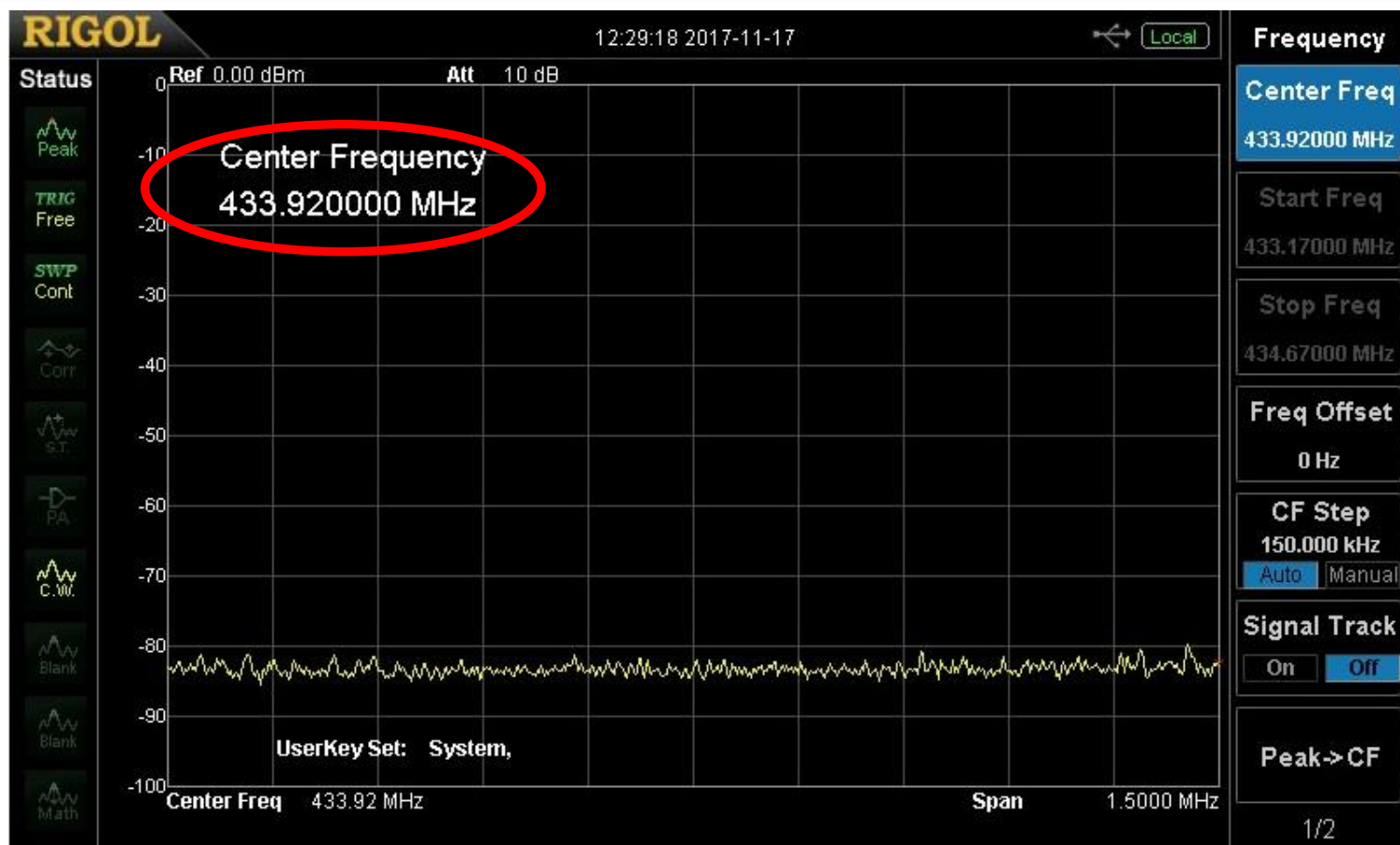
- Press “Meas” on DSA815 and go to 2<sup>nd</sup> page to activate the “SigCapture” mode.





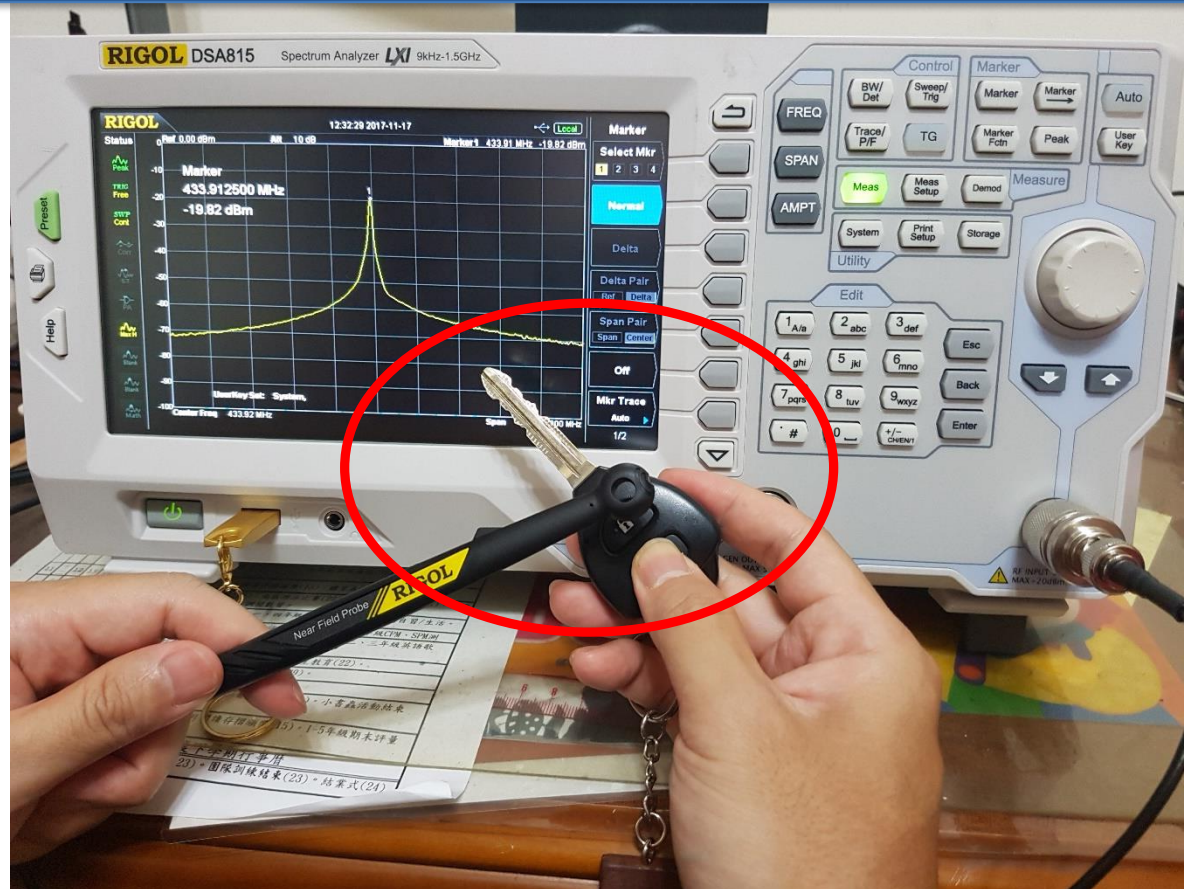
# SSC Measurement

4. Press "FREQ" on DSA815 and set the frequency to 433.92 MHz. ( ASK Modulation carrier frequency )



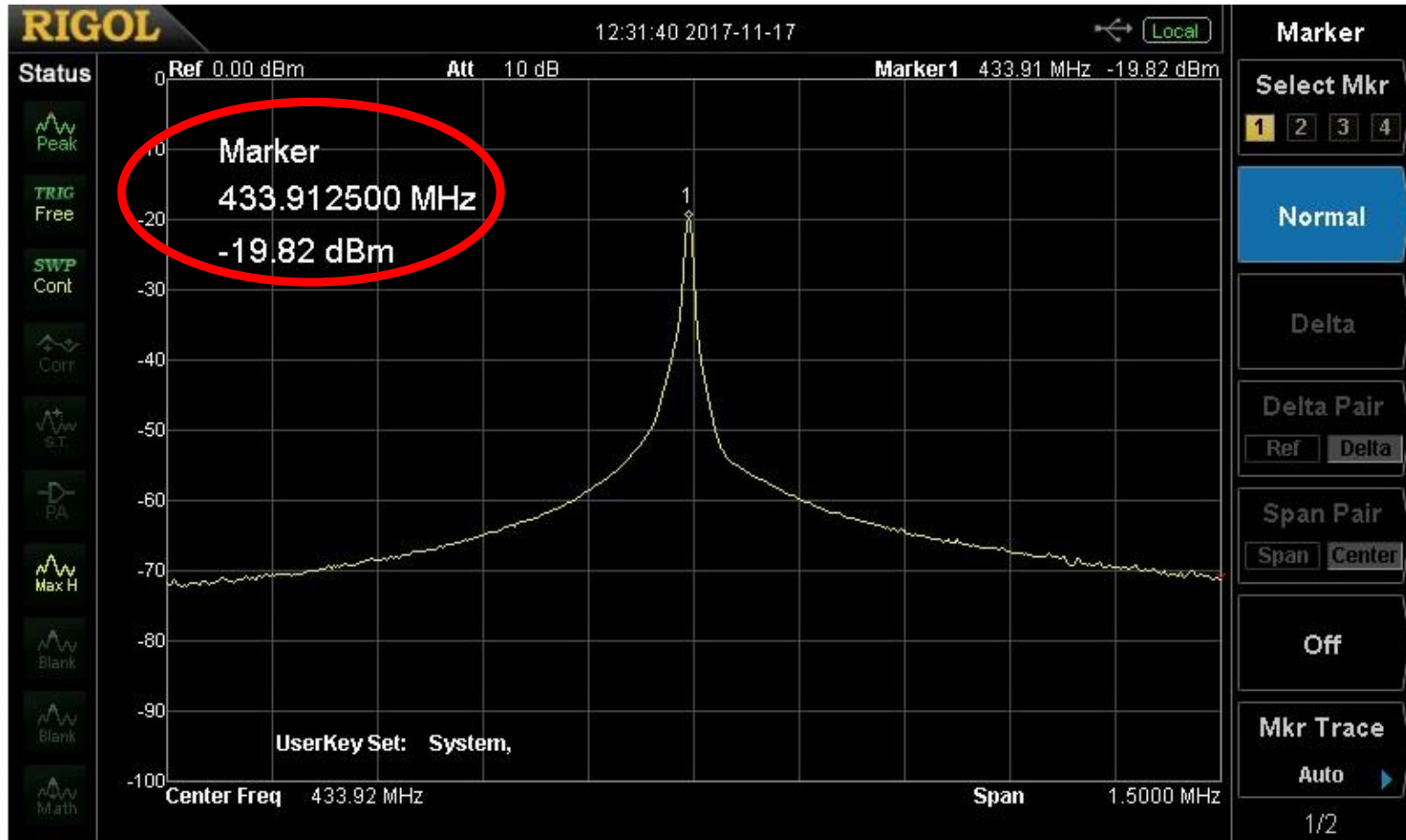
# SSC Measurement

5. Back to “SigCapture” Mode and put the Vehicle remote controller near the NFP-3, then press the controller button. The ASK Modulation spectrum will be shown on the display.



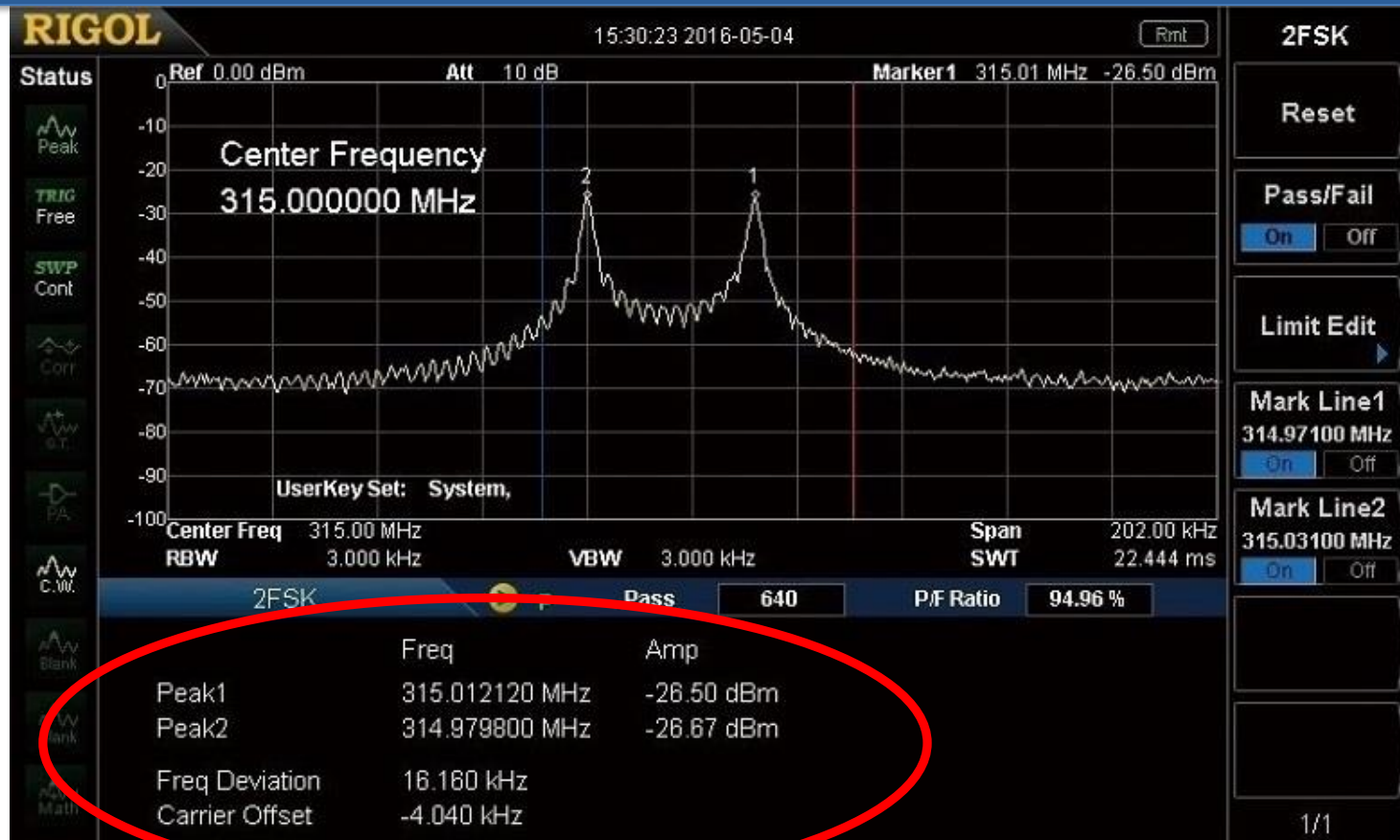
# SSC Measurement

- Press “Marker” on DSA815 and move the marker to the peak of spectro-line, then users can observe the frequency and power level on display.



# SSC Measurement

7. Exchange another DUT with FSK modulation capability, activate the “2FSK” function item on right side of the display. Users can observe the FSK modulation spectrum with statistical table in the diagram.





THANK YOU

