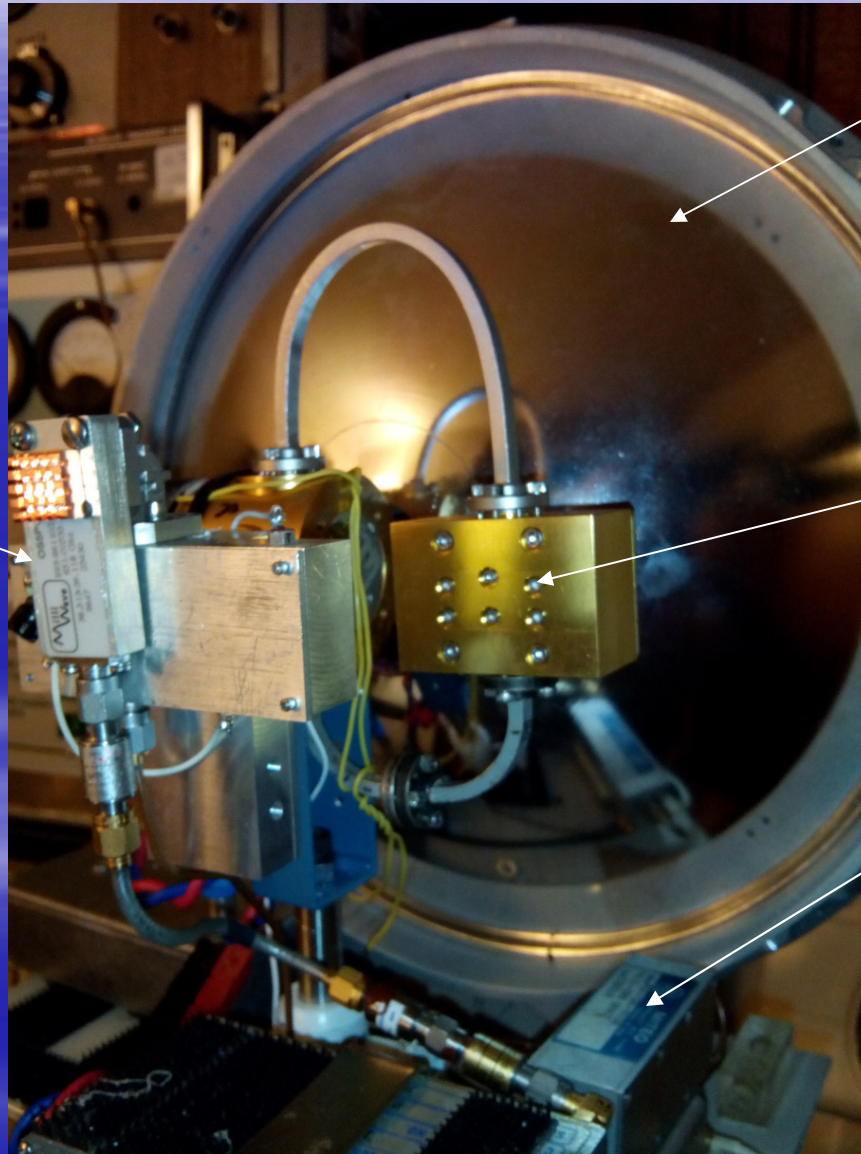


78 .192 GHz 12 inch Dish with WA1MBA Preamp  
Don W1FKF  
[w1fkf@arrl.net](mailto:w1fkf@arrl.net)



38 GHz  
3x Multiplier

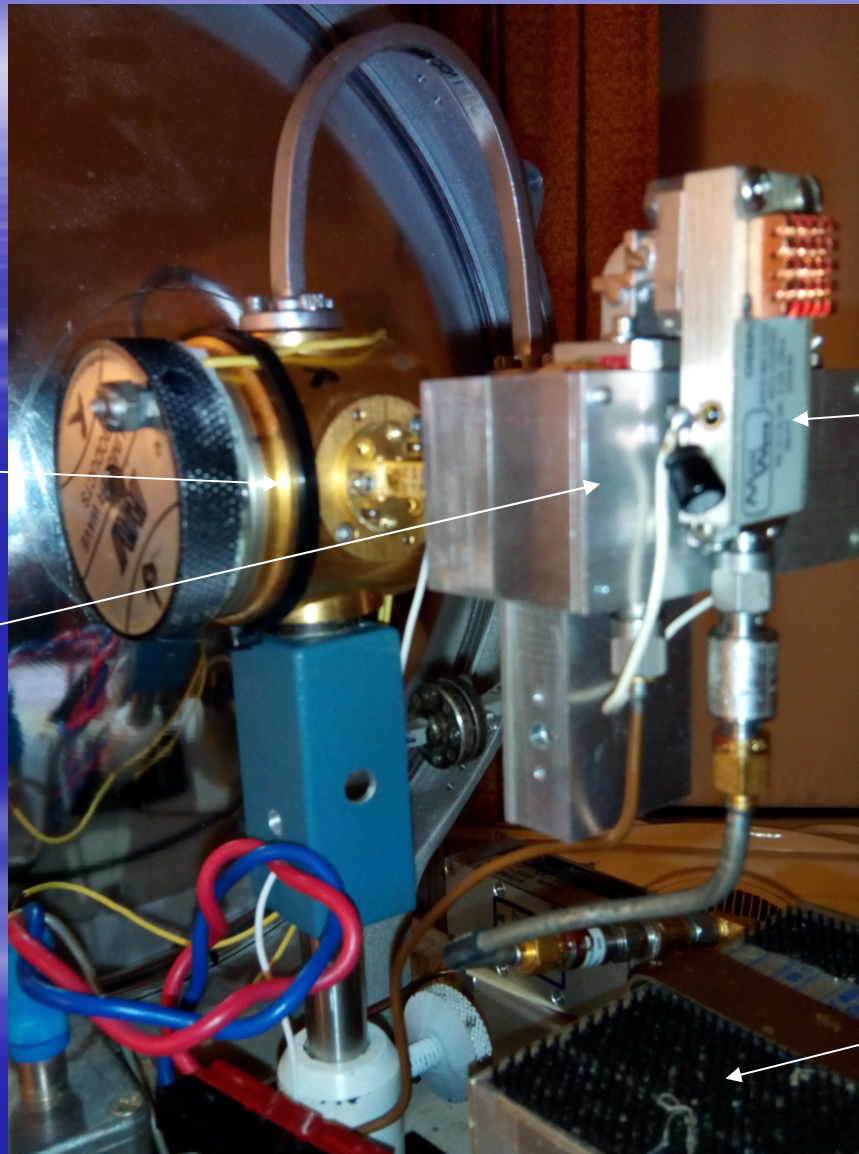
12 inch Edmund  
Scientific Dish

WA1MBA  
78 GHz  
Preamp

12960 MHz  
Brick oscillator

W1FKF 3-2014

## Back of Dish



Manual  
Waveguide  
Switch

Mixer  
(DB6NT Board)

38 GHz  
3x multiplier

12960 MHz Oscillator

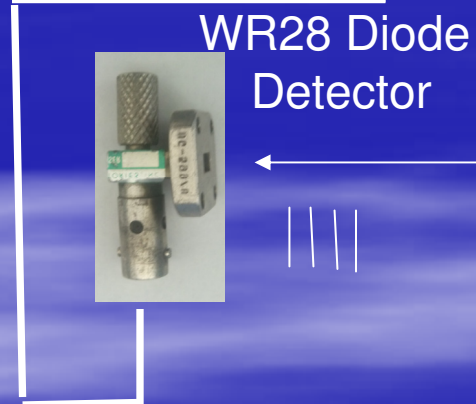


# Test Set-Up For gain Measurements

Signal Source HP 8341 a



3723.4928 MHz  
(+13 dBm)

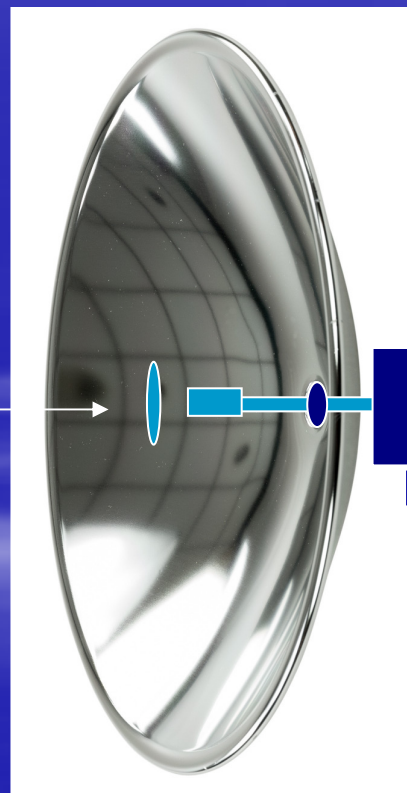


WR28 Diode  
Detector

(78.192 GHz)

2.5 Mtrs.

12 inch Edmund Scientific Dish



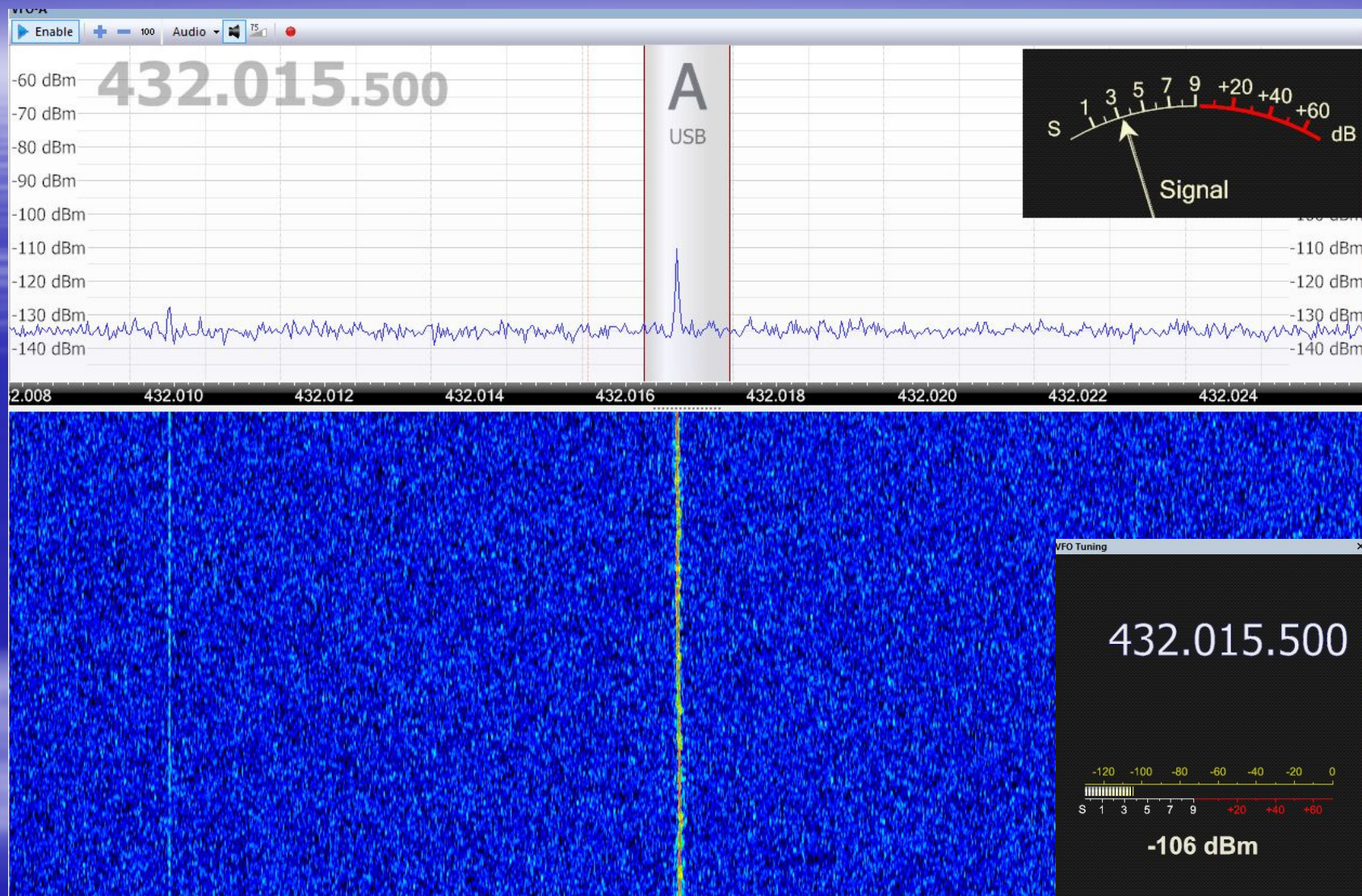
RTL  
Dongle Computer

Software  
SDR-Console V1.5

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# Software SDR-Console V1.5

## Receiver RTL Dongle

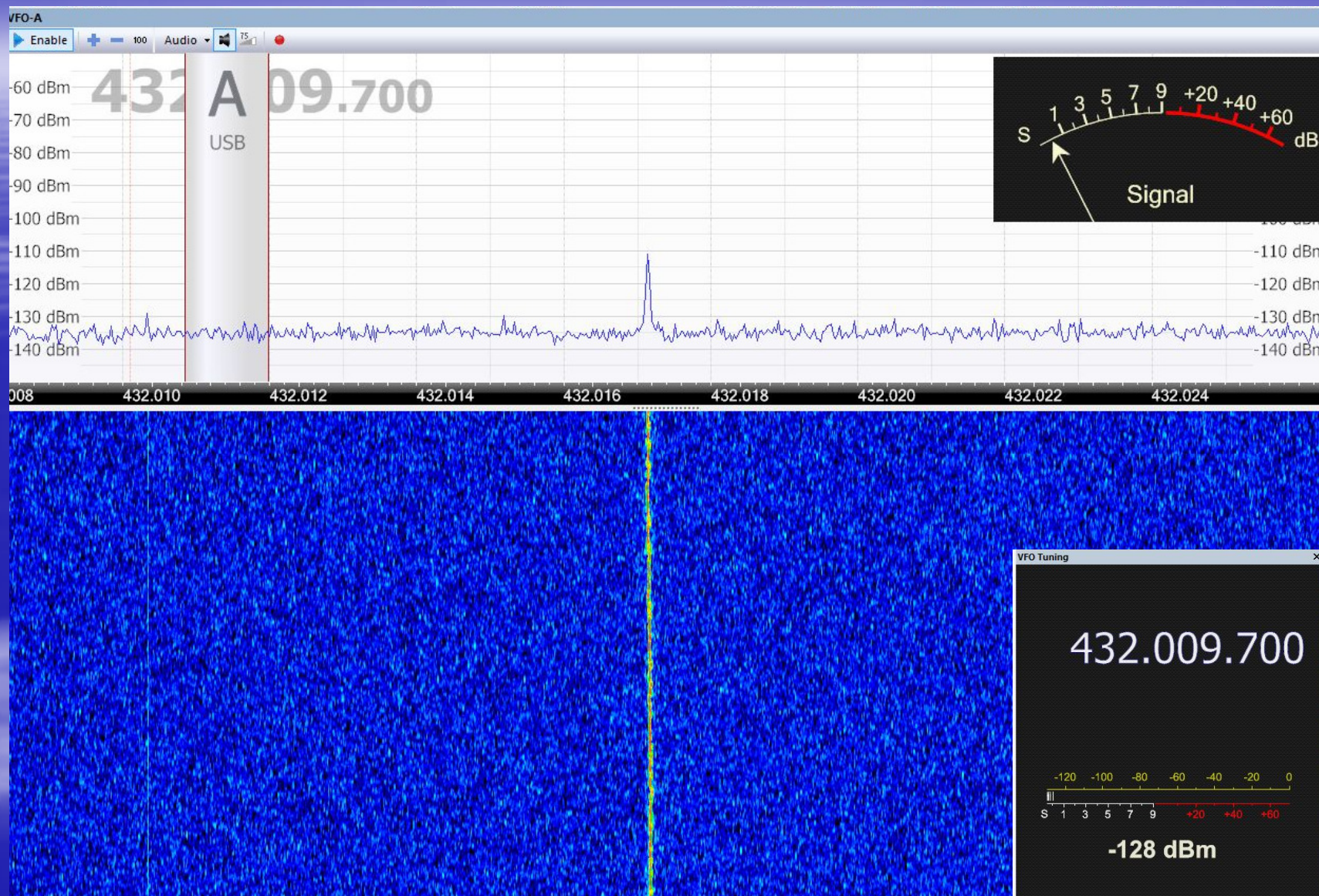


Preamp Off Signal -106  
dBm

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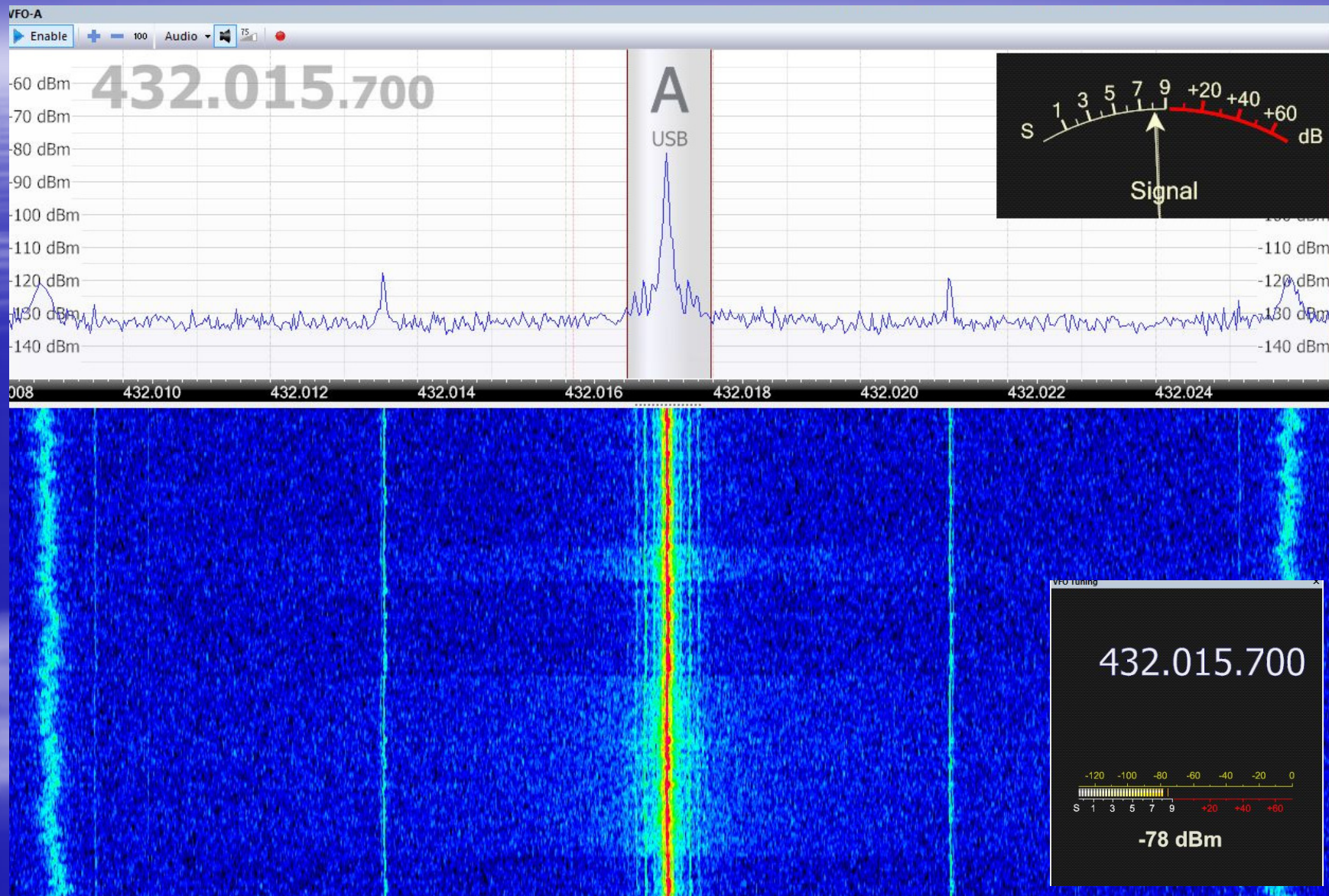
# Signal Source HP8341a to WR28 Diode Detector



Preamp off Frequency Base-Line -128 dBm

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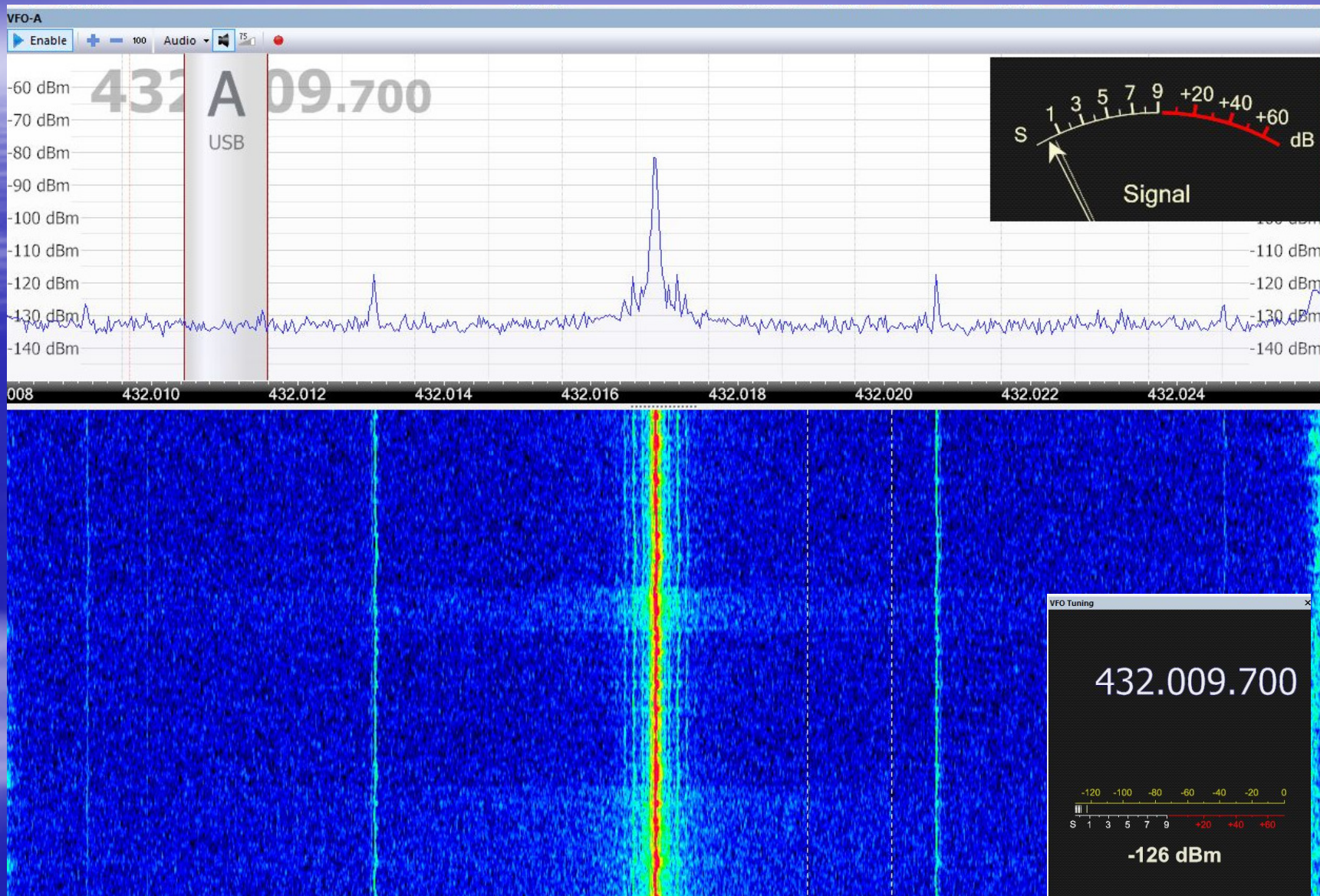




Preamp on Signal -78 dBm

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Preamp on Base-Line -126 dBm

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## Measurements

Preamp Off

Base line -128 dBm

Signal -106 dBm

22 dB out of noise

Preamp On

Base Line -126 dBm

Signal -78 dBm

48 dB out of noise

WA1MBA Measured Gain

25.8 dB

noise figure

5.13 dB

My measured Gain

48 dB

-22 dB

Gain 26 dB