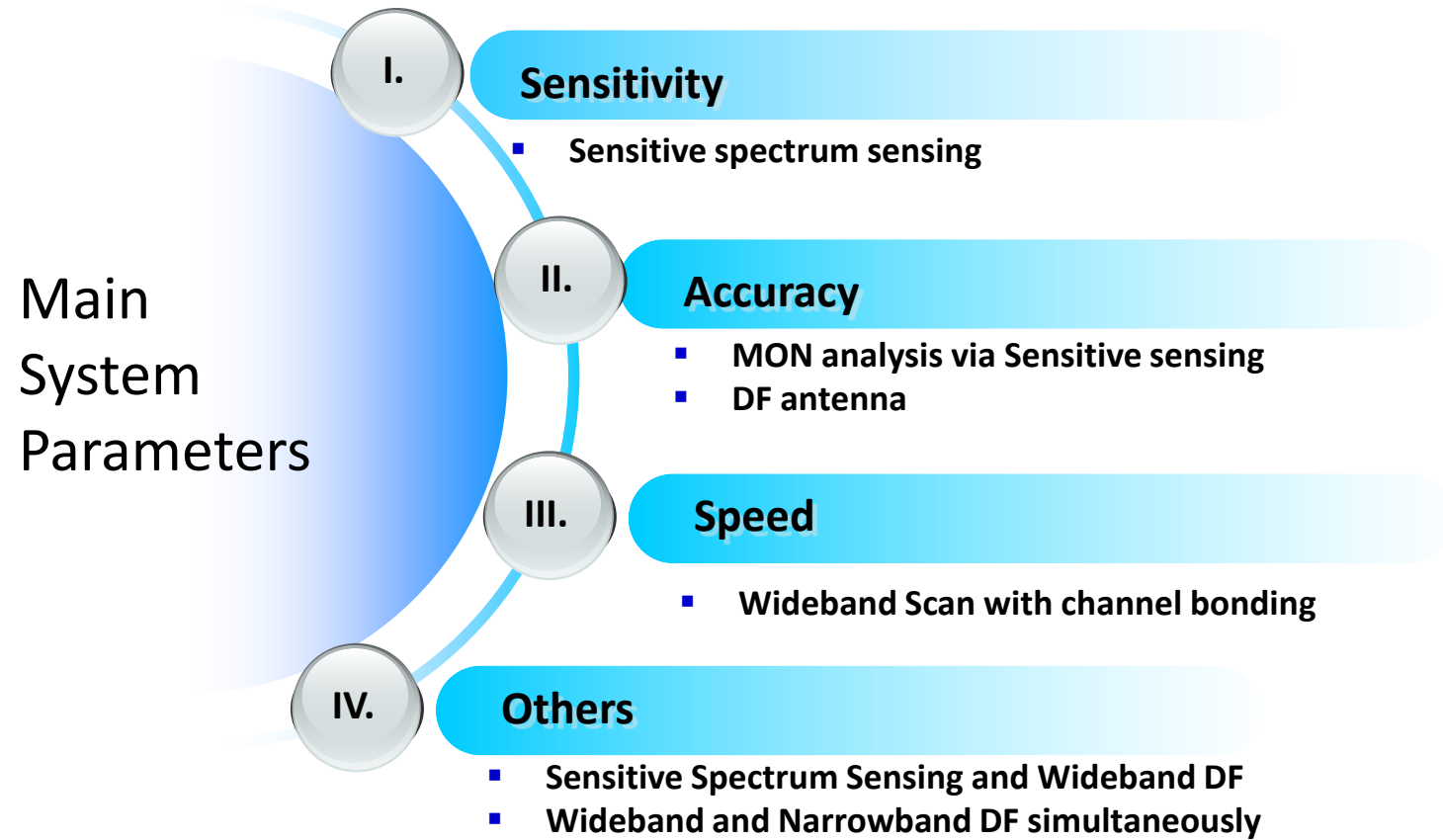


advanced radio monitoring technology

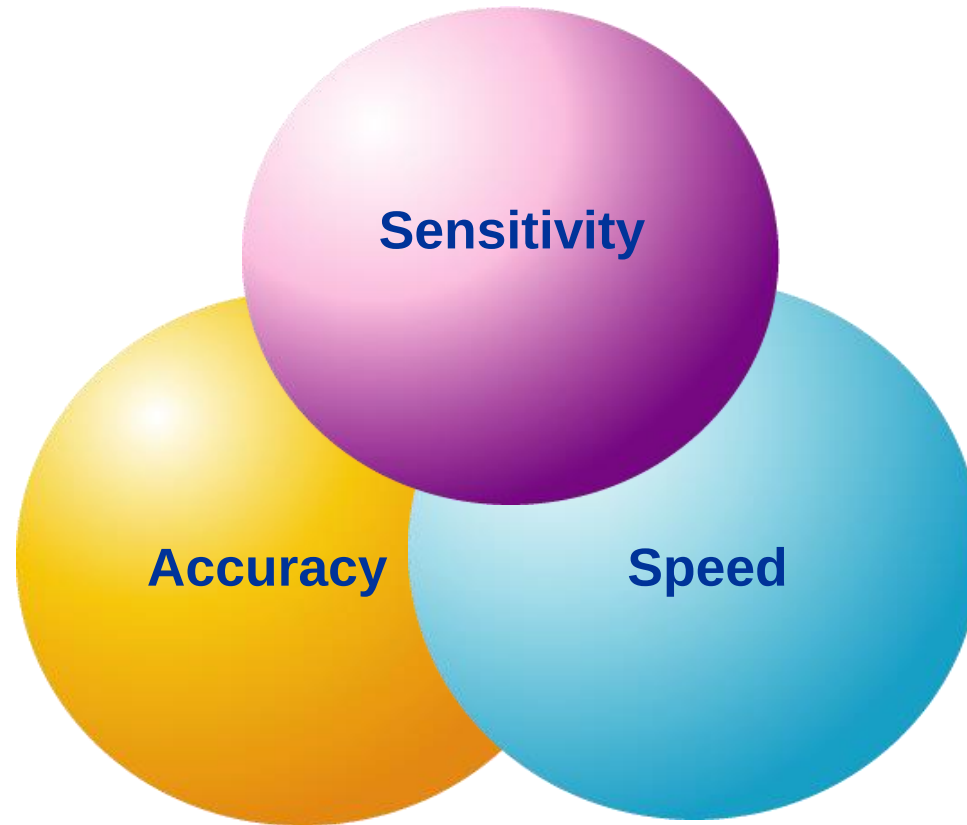
2021. 09. 07.

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Contents



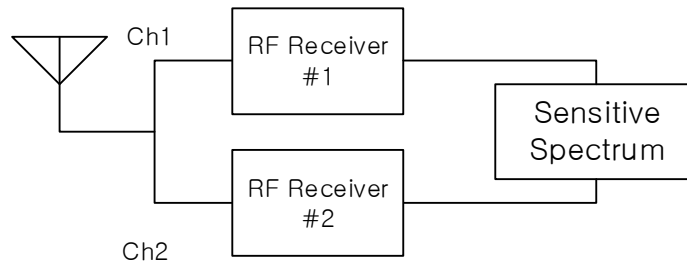
Main Parameters of Radio Monitoring System



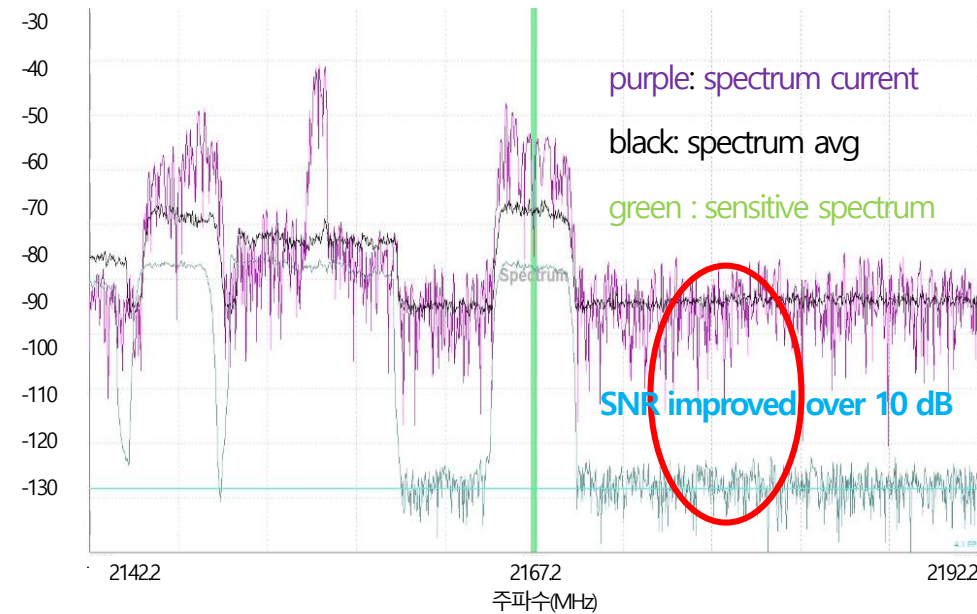
I. Sensitivity - Sensitive sensing spectrum

□ Radio noise reduction principle and effect

- Maintains signal components and removes random noise components to improve SNR
- High-speed signal processing based on time-frequency complex sensing

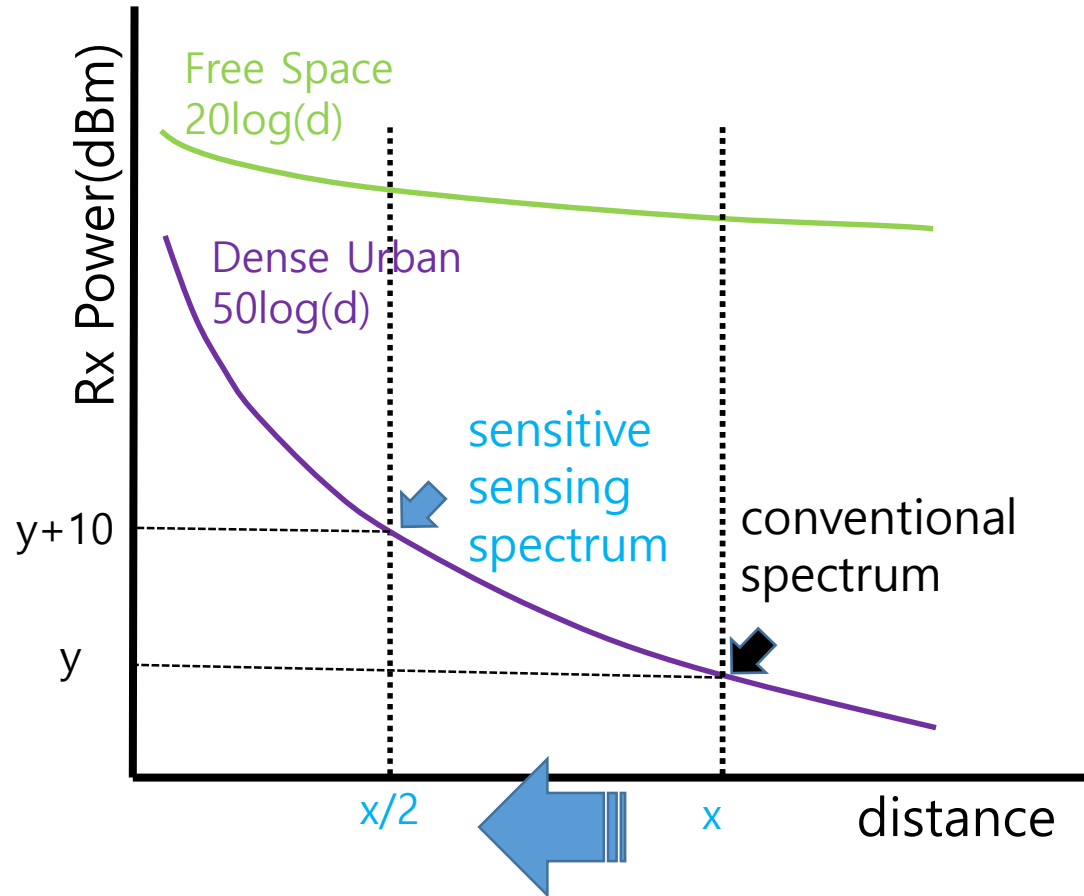


[Structure]



[Meas. Result in mobile environment(WCDMA)]

I. Sensitivity - Sensitive sensing spectrum

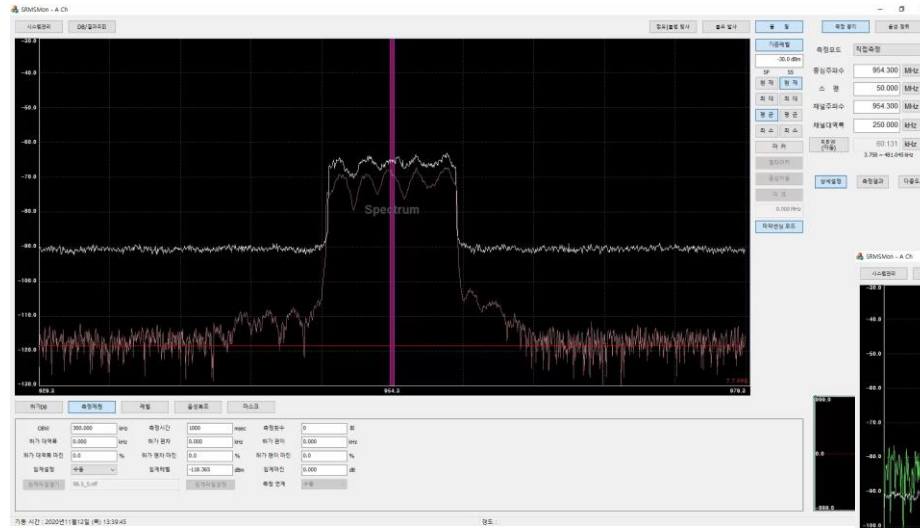


10dB improvement of SNR makes sensor coverage distance be expanded by two times in urban environment.

The sensor coverage area can be increased by 4 times.

I. Sensitivity - Sensitive sensing spectrum

□ Sensitive sensing spectrum – LTE

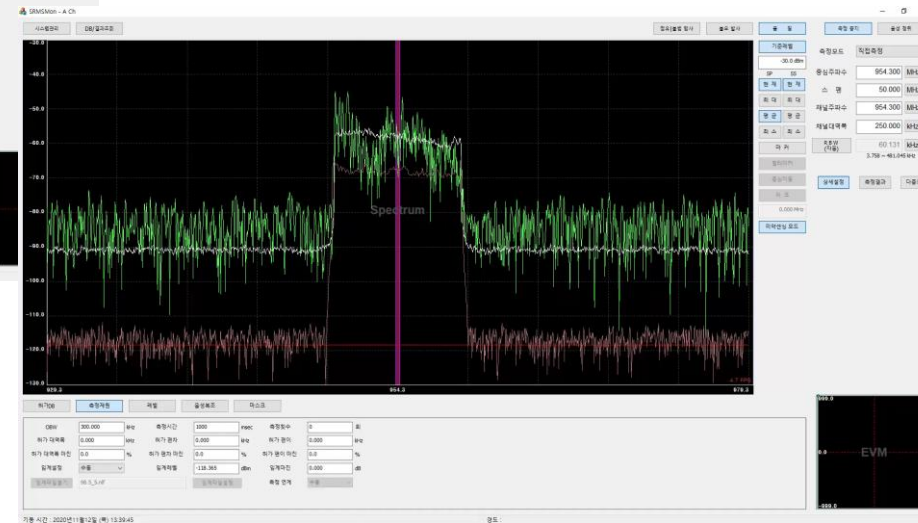


[Meas. Result in fixed environment

green: spectrum current

white: spectrum avg

red: sensitive spectrum

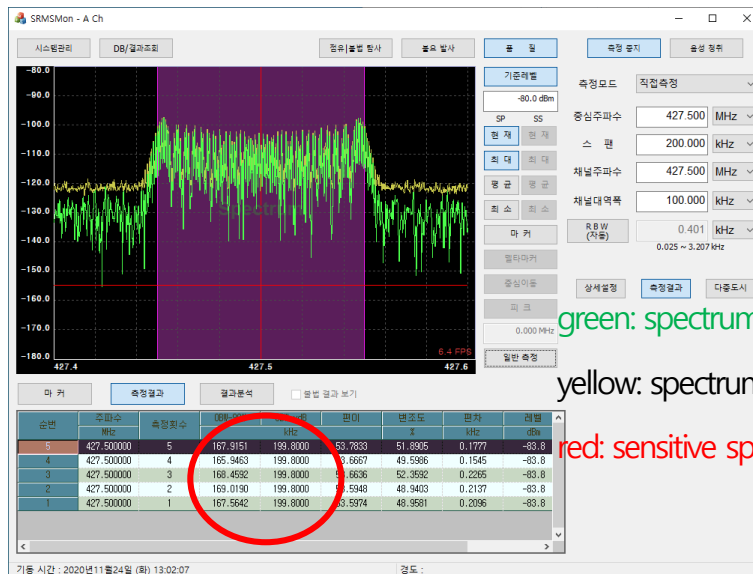


[Meas. Result in mobile environment

II. Accuracy - MON

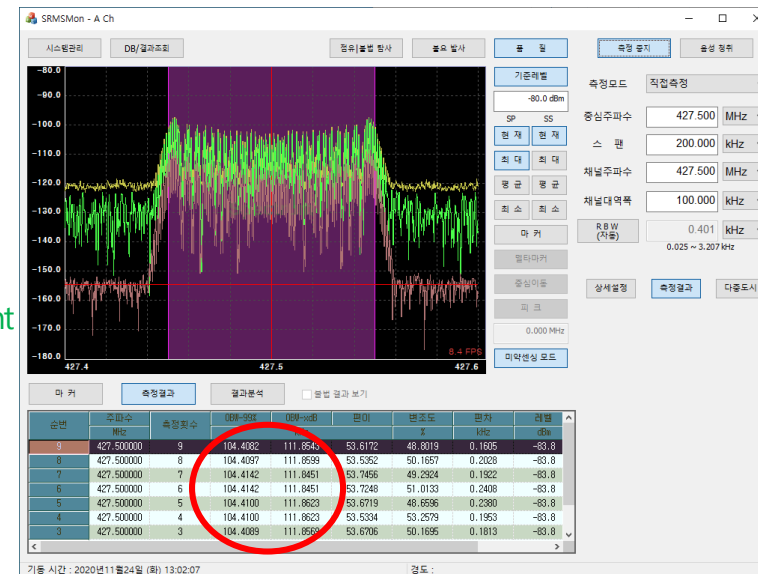
□ Occupied BW measurement with sensitive sensing spectrum

- Improved signal-to-noise ratio enables precise measurement under weak signal conditions
 - FM signal : freq deviation 50 kHz, modulation 1 kHz
 - occupied BW : 100 kHz



green: spectrum current
yellow: spectrum avg
red: sensitive spectrum

[spectrum]

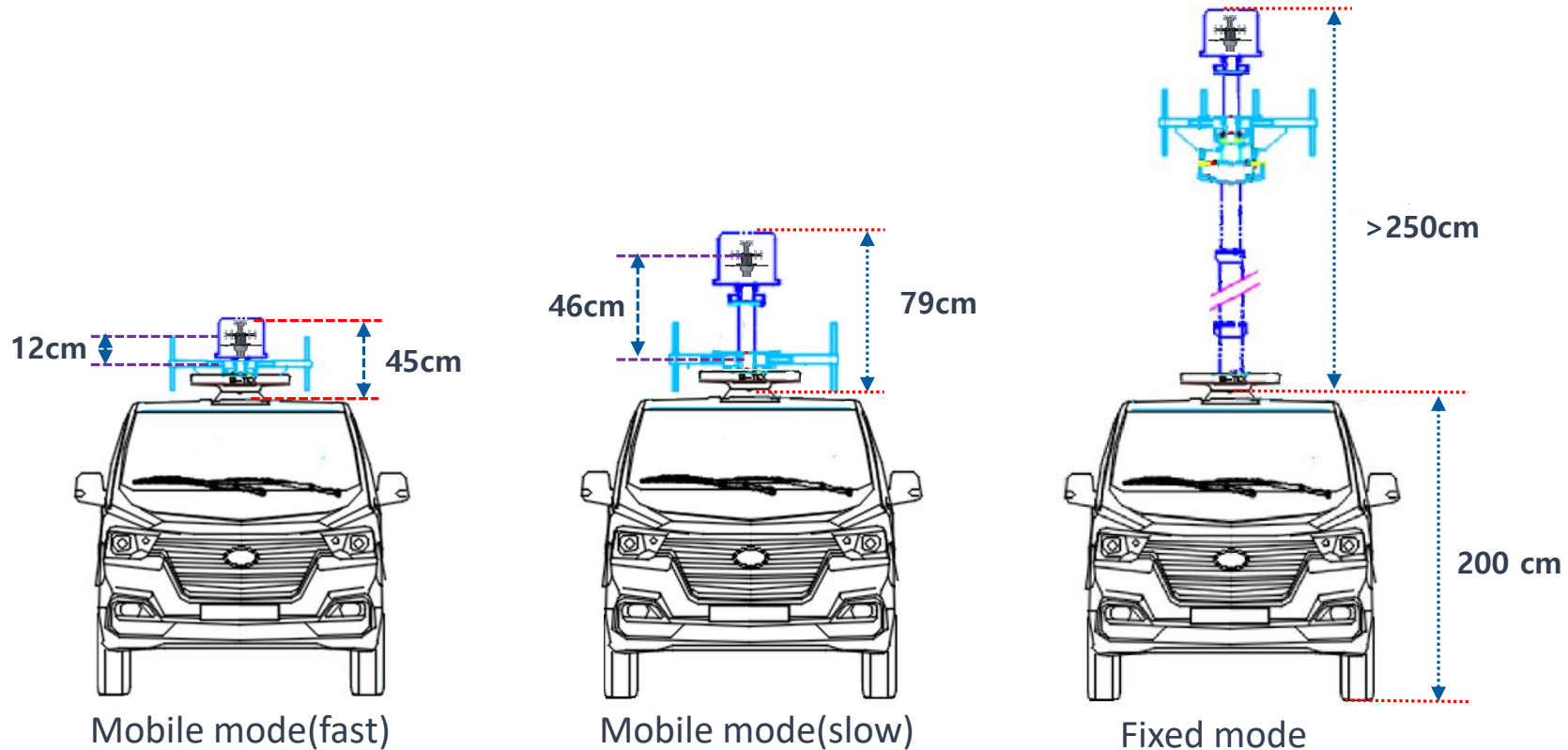


[sensitive sensing spectrum]

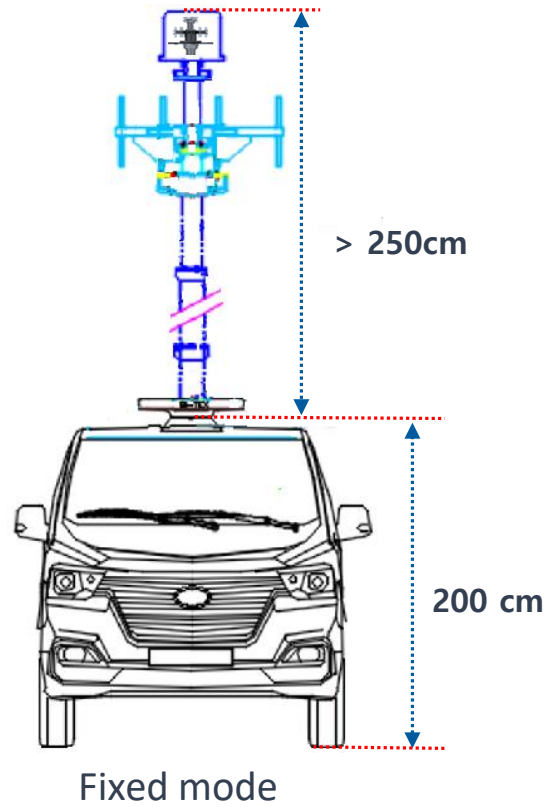
II. Accuracy - DF

□ Slidable DF antenna embedded on a telescopic mast

- Slidable and Compact DF antenna technology
- Maneuverability with stability
- DF accuracy improved via a long distance between L bay and M bay



II. Accuracy - DF

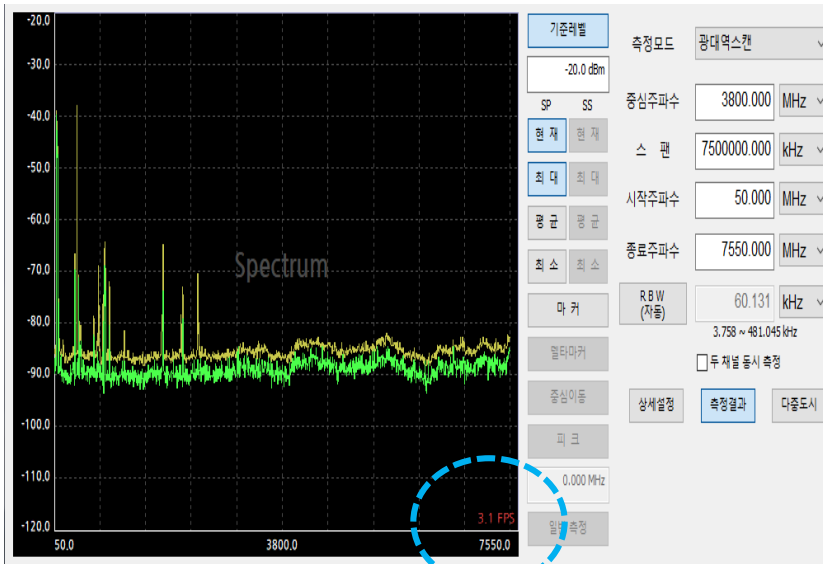


III. Speed

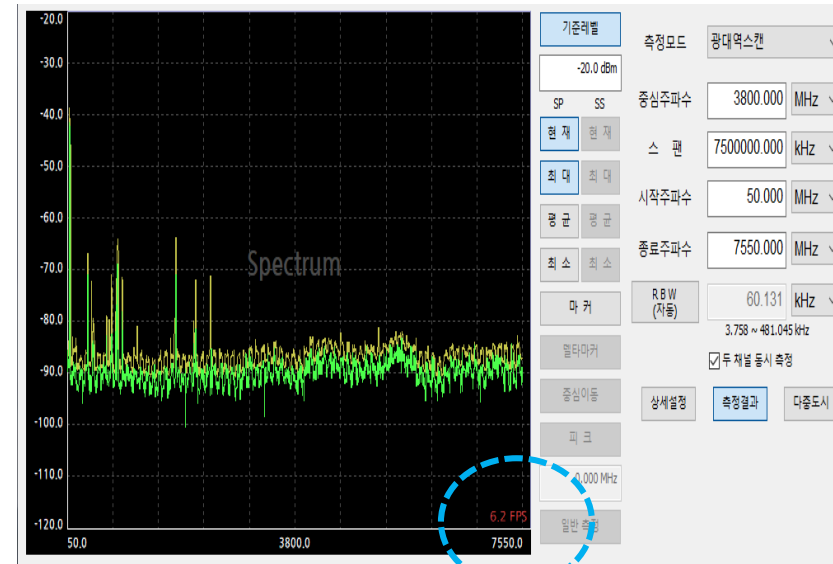
□ Wideband Scan with channel bonding

■ Improved Wideband Scan Speed

- single channel : 3.1 Frames/s
- dual channels : 6.2 Frames/s



[single channel]



[dual channels]

IV. Others

☐ Sensitive Spectrum Sensing and Wideband DF



IV. Others

☐ Wideband and Narrowband DF simultaneously



Thank You!