

Relationship between radiated EMI measurable lower level and antenna gain

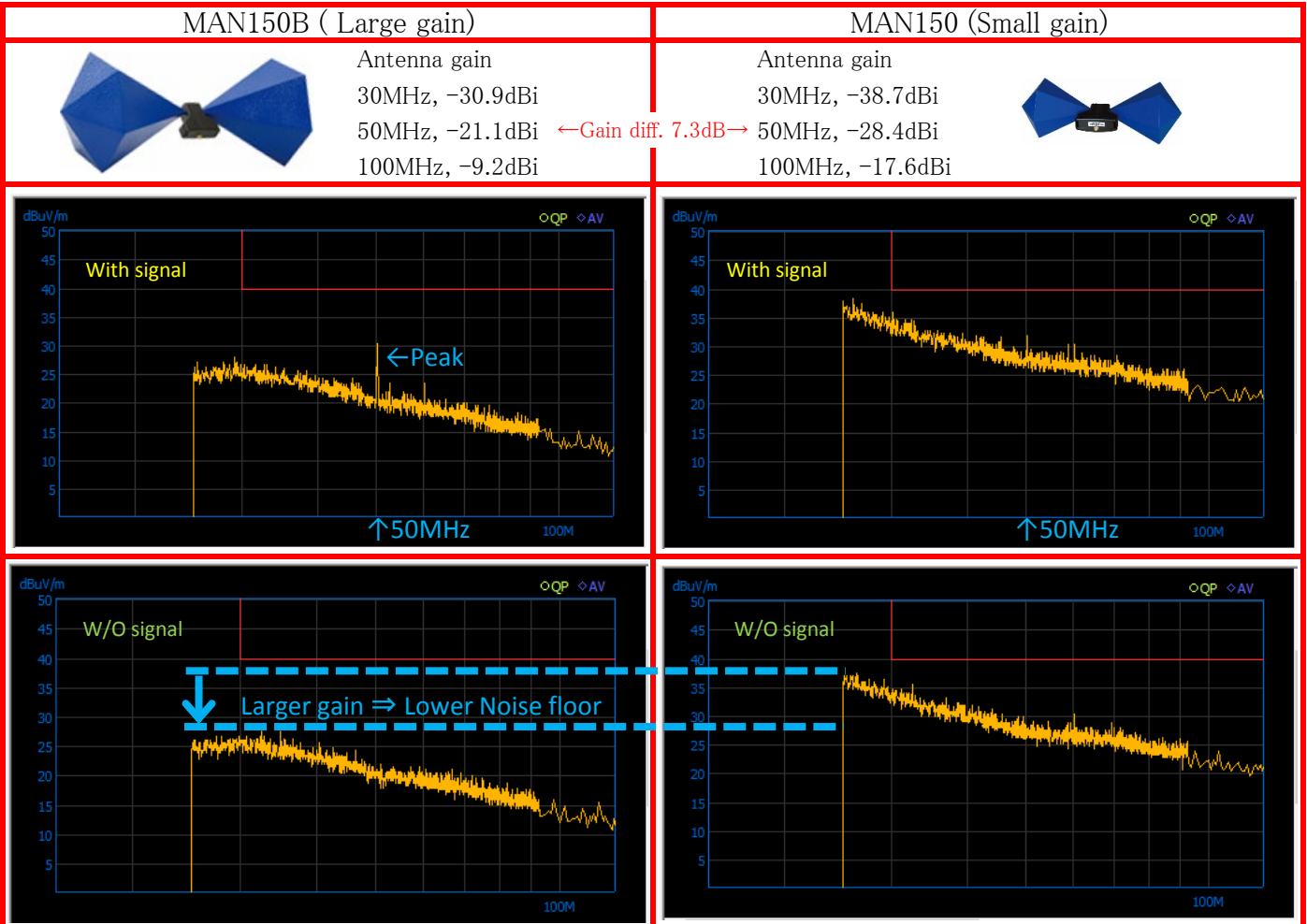
◇ Lower levels of radiated EMI noise can be measured by using a high gain antenna.

[~*Application*~]

By using a high gain antenna, lower levels of noise can be measured in radiated EMI (emission) measurements.

[~*Solution*~]

Measurement examples with Handheld signal analyzer MSA538E + PC software for EMI MAS530 are shown. Antenna MAN150B and MAN150 that have different gain were used in the measurements. We input a weak noise-level signal of 50 MHz and compared the peak of it (upper). The measurement results without signal input are also shown to compare the noise floor (bottom).



★ The MAN150B (Large gain) has a lower noise floor so you can clearly see the 50 MHz peak.

[~*Example System constitution*~]

- Biconical Antenna MAN150
- Stand for MAN150
- Handheld signal analyzer MSA538E
- Coaxial Cable (SMAP/SMAP 4m) MC203
- Adapter (NP/SMAJ) MA306
- PC software for EMI MAS530
- Communication Cable USB cable MI400

System diagram



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