C & U CREATIVE & UNIQUE

MICRONIX

Antenna selection for on-site measurement of radiation emission

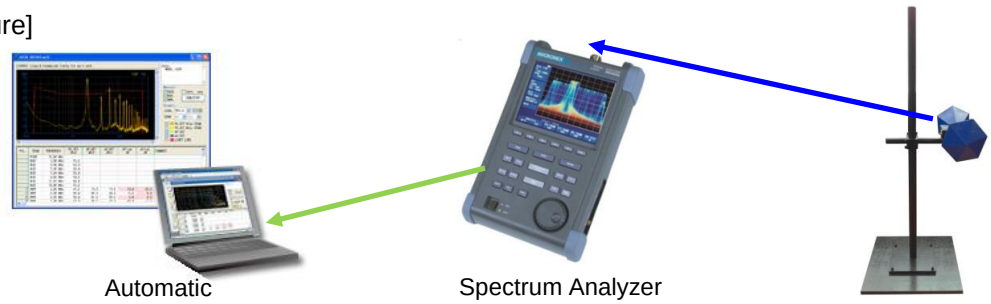
Difference in measurement result and selection method depending on antenna difference.

［Application］

In the pre-compliance tests of radiated EMI (emission), it is important to select the receiving antenna and the performance of the measuring instrument , so that lower level noise can be measured.

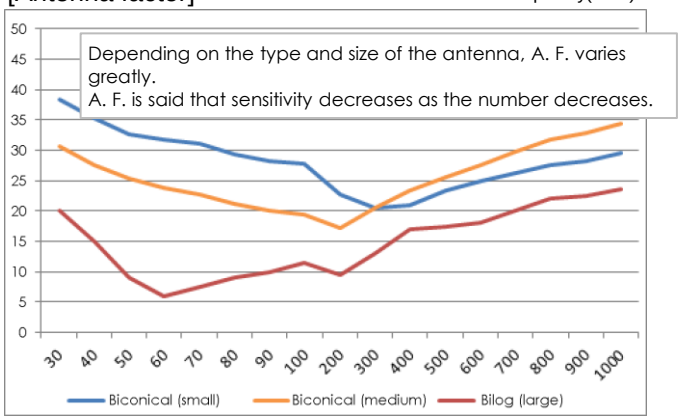
［Solution］

[Structure]

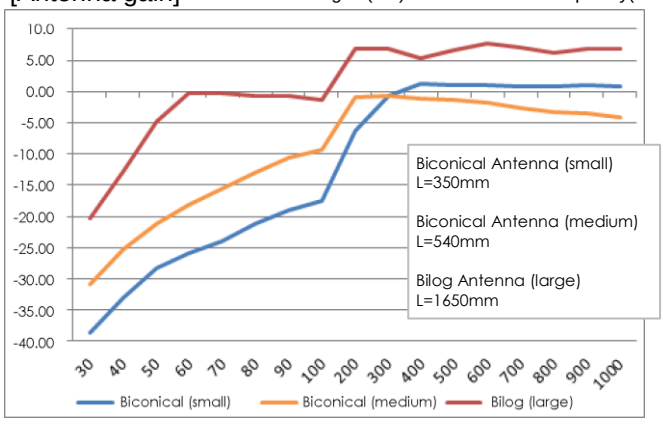


Automatic measurement software　　Spectrum Analyzer　　Antennas

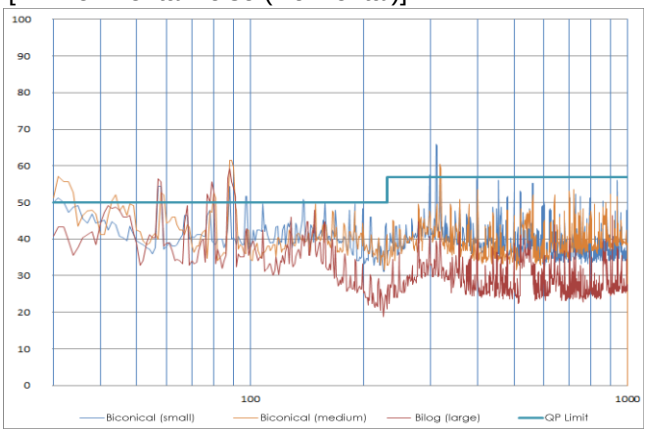
[Antenna factor] Vertical axis：A.F. Horizontal axis：frequency(MHz)



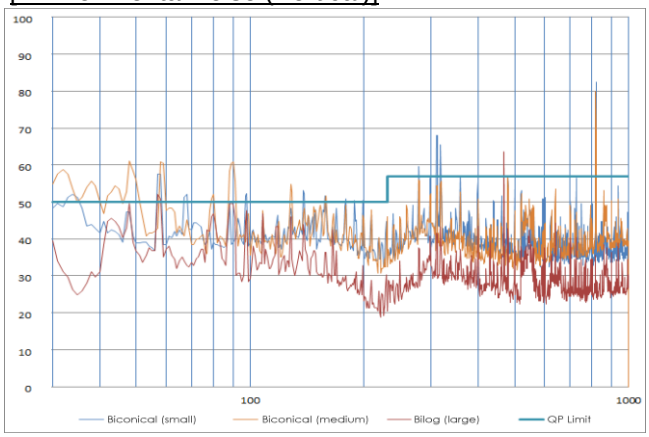
[Antenna gain] Vertical axis：gain(dBi) Horizontal axis：frequency(MHz)



[Environmental noise (Horizontal)]



[Environmental noise (Vertical)]



The above measurement result (graph) is a comparison of spatial noise (environmental noise) when three antennas are installed under the same conditions. The floor noise of Bilog Antenna (large) is the lowest.
Generally, We choose Bilog Antenna with good sensitivity, but this antenna is L = 1650 mm and its size is very large, so it is not portable.In other words, if the measurement location is limited and wide, Bilog Antenna is the best.
On the other hand, the small or medium size Biconical Antenna is inferior in performance to the Bilog Antenna, but it is compact and excellent in portability. It is useful when there are many measurements on a business trip or when using near the EUT as noise detection.
It is important to select according to the environment to use.

*For more information, please feel free to contact our sales staff.　　2018/12

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