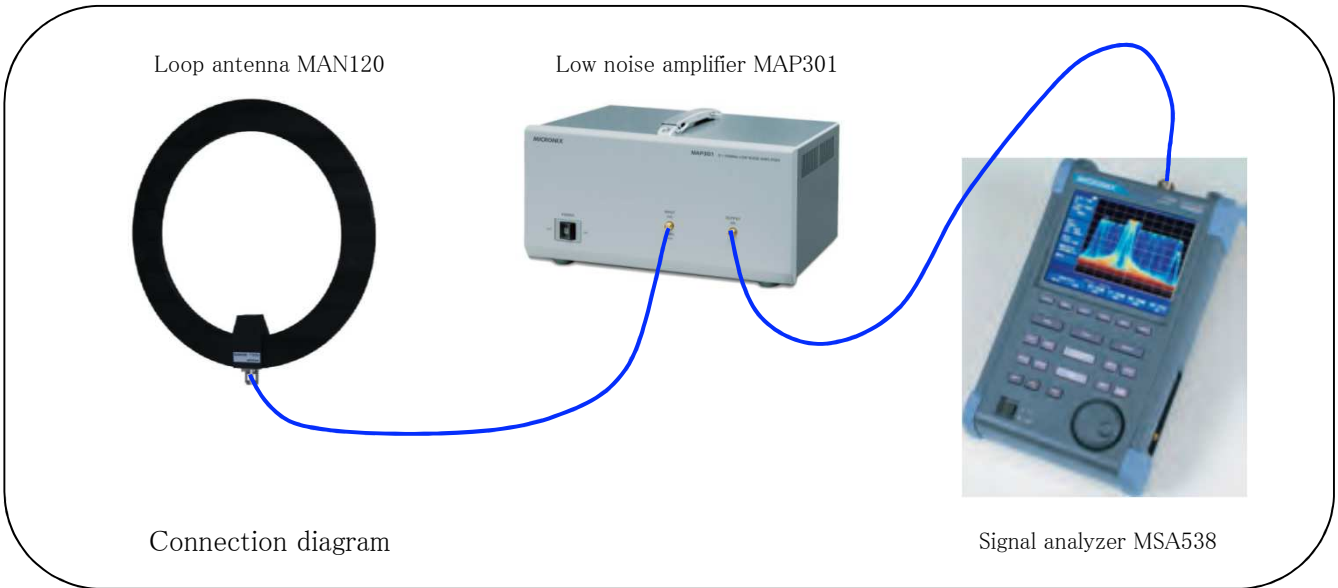


Magnetic Field Strength Measurement with Loop Antenna

◇The magnetic field strength measurement from 100kHz to 30MHz with Loop antenna, Low noise amplifier and Signal analyzer.

[~*Application*~]



[~*Solution*~]

It is possible to display the magnetic field strength directly on the signal analyzer MSA538 by inputting a calibration coefficient values obtained by subtracting the gain of the low noise amplifier MAP301 from the antenna factor of the loop antenna MAN120.

Frequency (MHz)	Magnetic Antenna Factor (dB/m) (typ.)	MAP301 Gain (dB) (typ.)	Antenna Factor - MAP301 Gain [Calibration coefficient values]
0.1	13.5	55.0	-41.5
0.15	10.1	55.1	-45.0
0.2	7.7	55.1	-47.4
0.3	4.5	54.9	-50.4
0.5	1.1	54.9	-53.8
0.7	-0.8	54.7	-55.5
1	-2.3	54.7	-57.0
1.5	-3.3	54.5	-57.8
2	-4.0	54.4	-58.4
3	-4.2	54.2	-58.4
5	-4.5	54.1	-58.6
7	-4.1	53.9	-58.0
10	-4.1	53.8	-57.9
15	-4.2	53.7	-57.9
20	-4.0	53.6	-57.6
30	-4.5	53.5	-58.0

[~*System constitution & Price*~]

Signal analyzer (MSA538)	×1
Loop antenna (MAN120)	×1
Low noise amplifier (MAP301)	×1
SMA(P)/N(P) coaxial cable	×1
SMA(P)/N(J) coaxial cable	×1
Loop antenna stand	×1

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