

Pre-amplifier

EM5020A (20dB, 9kHz-3GHz)

EM5020B (30dB, 9kHz-3GHz)



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1. Summary

EM5020A/B pre-amplifier can be used with EM5030 near field probe to amplify the small signal from probe. The frequency range of EM5020A/B is 9kHz - 3GHz with a fixed gain of 20dB (EM5020A) / 30dB (EM5020B). It can greatly improve the sensitivity of system testing. The EM5020A/B can be powered by a standard USB power adapter (Standard Accessories) which is very easy to obtained, and it also can be very conveniently powered by the USB port of the spectrum analyzer or receiver. It can help the engineer to debug the electromagnetic disturbance source quickly and accurately with the EM5030 of CYBERTEK.

2. Specification

Model	EM5020A	EM5020B
Frequency range	9kHz-3GHz	
Gain(typically)	20dB	30dB
Flatness	±3dB	
Gain	(Figure1)	(Figure2)
Max linear output power	10dBm	
Noise figure@2GHz	3dB	4dB
Max input power	13dBm	15dBm
Supply voltage	DC12V	
Input/output interface	SMA female	
Size	72mm*52mm*18mm	

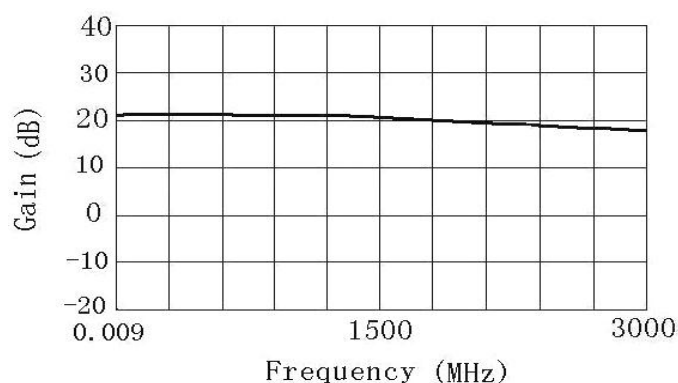


Figure1: Gain VS Frequency (EM5020A)

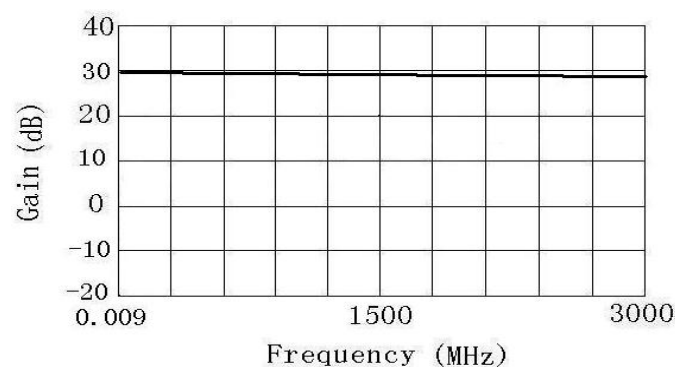
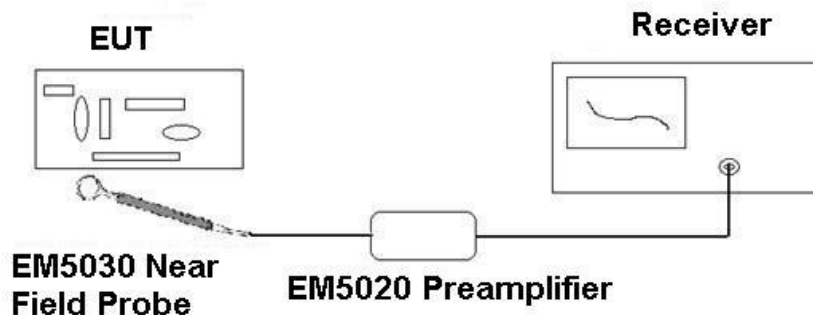


Figure 2: Gain VS Frequency (EM5020B)

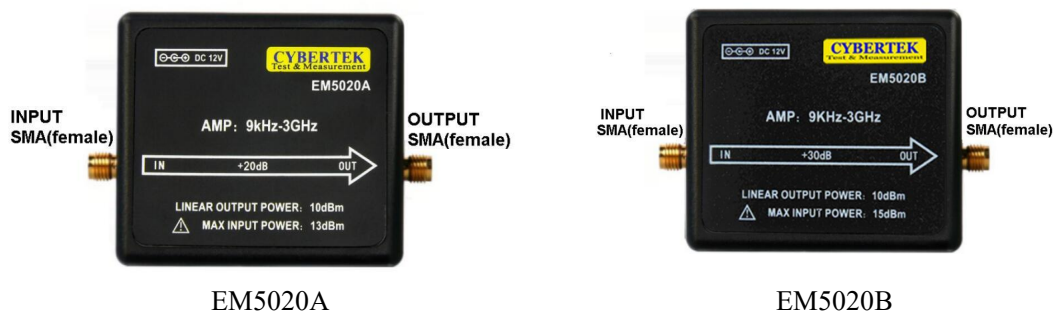
3. Application

- ✧ Amplify the small signal
- ✧ EMI disturbance source debug



4. Products and accessories

- ✧ Products description



- ✧ Standard accessories



5. Using Steps

- Connect the output interface of the pre-amplifier to receiver or spectrum analyzer
- Connect pre-amplifier power supply
- Connect input signal (Please be sure that the input signal power doesn't exceed the max input power of the amplifier)

6. Caution

- ✧ Connect the pre-amplifier before plug power cable in.
- ✧ Do not connect the pre-amplifier if you do not know the max level of the signal. Max Input power of the EM5020A is 13dBm, EM5020B is 15dBm. It may be damaged if the input level exceed the Max Input power.
- ✧ Before connecting the device to EM5030, please make sure there is no strong electromagnetic field around.

7. Packing list

	EM5020A	EM5020B
Pre-amplifier	1	1
USB 5V adapter(CK-605)	1	1
Adapter: SMA(male)to N(male)	1	1
12V Booster from 5V (CK-615)	1	1
Instruction manual	1	1
Warranty card	1	1
Test report	1	1

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