

Operation Manual of CG 100/500



承儀電子股份有限公司
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CG 100/500



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1. Introduction

The CG 100/500 is a comb generator, it has been developed to provide a means of quickly and very easily checking the accuracy of EMC conducted emission test systems.

Key features

- Small size... battery powered.
- Simple operation... simply connect to the EUT port and switch on.
- USB charging.
- Can be used with any standard mains output socket, via adaptors.



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2. Shipping list

1	CG 100/500 unit
2	Earth bonding cable
3	Charger adapter, CE eligibility criteria
4	USB Cable
5	Operation Manual
6	Wooden storage box



Figure 2-1 CG-100/500 Comb Generator and Accessories



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3. Specification

3.1 Electrical Specifications

Frequency range	100kHz~400MHz
Frequency step size	100kHz/500kHz Switchable
Maximum Mains Voltage range of LISN	240Vdc or 240Vac, 60Hz
Output socket-1	IEC 320-C14 AC Power Inlet
Output socket-2	RJ45
Output socket-3	RJ11

3.2 Battery and Charger

Battery type	Lithium-ion Rechargeable battery
Battery Capacity	3.6V/6000mAh
Charging input	DC 5V/500mA
Charging Time	8-10 Hours
Usage time	16 Hours
Charging Connector	Mini USB Socket
Charger Adapter	Input: 100-240Vac/50-60Hz, 0.3A Output: 5Vdc, 1Amax

3.3 Physical Specifications

Length	120mm
Wide	82mm
Height	85mm
Weight	1100g



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4. Overview

Front and Top panel:



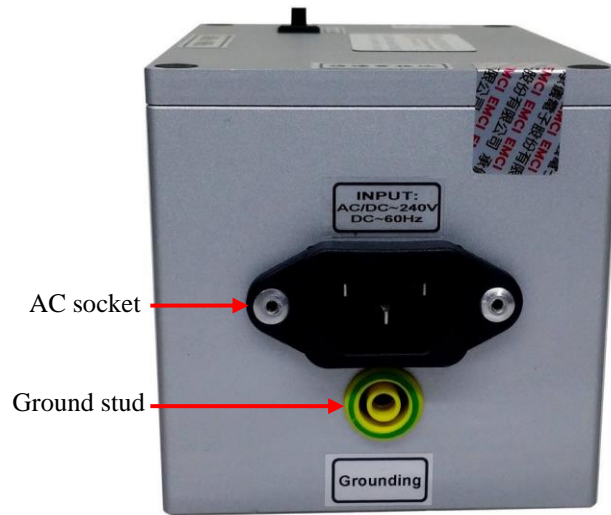
Item	Description
Frequency step switch	Select frequency step 100kHz or 500kHz
Power switch	Turn on or off CG100/500
LED indicator	Battery status indicator
Mini USB connector	For Charge input (5Vdc)



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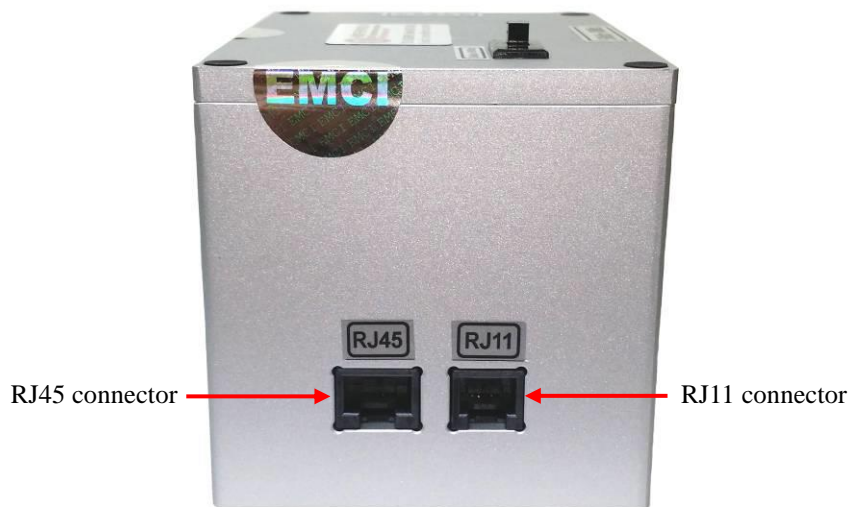
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Right panel:



AC socket	Generator output, connect to LISN
Ground stud	Ground point, connect to Safety earth ground.

Left panel:



RJ-45 socket	Generator output, connect to ISN for T4&T8
RJ-11 socket	Generator output, connect to ISN for T2



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5. Operation

5.1 Battery charging

Before use the CG100/500, please make sure the internal battery has been charged, And the batteries completely charge is suggested.

CAUTION During charging, the Power switch shall be in the OFF position!

CAUTION The charger input of CG100/500 does not exceed 5.2Vdc.

5.2 General operation

5.2.1 Power On Switch

The switch turns the unit power on or off.

5.2.2 Power On Indicator

When the Power On indicator LED is lit the Comb Generator is ready for use.



3 LEDs lit, the battery level is 70~100%



2 LEDs lit, the battery level is 40~70%



1 LED lit, the battery level is 20~40%

If only one LED lit when power on, the battery level is 20~40%, please recharge the CG100/500 unit. When all LEDs are dark at power on, that means critical low battery, and must recharge the CG100/500 unit right now.

The LED will be flashing when the CG100/500 in charging status, and will all lit when the battery is completely charged.



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5.2.3 Connection with LISN

1. Connect an earth bonding wire from the earth stud on the CG100/500 to a reliable earth point, ensuring a good connection.
2. Connect the supplied Power cord from the AC socket on the CG100/500 to the mains EUT outlet on the LISN.

Ensure the connections to the receiver/analyzer are as used for measuring the EUT, with any pre-amplifiers and/or transient limiters switched on.

5.2.4 Connection with ISN

1. Connect an earth bonding wire from the earth stud on the CG100/500 to a reliable earth point, ensuring a good connection.
2. Connect the RJ-11 or RJ-45 cable from the RJ11/RJ45 connector on CG100/500 to the RJ11/RJ45 connector on EUT port of ISN.

5.2.5 Recommends of site validation

The CG100/500 Comb generator can be used to validate test site or used to daily check. In order to minimize the measure deviation, the same setup installation at each test is in need, and the follow items have to be considered.

1. The same position and orientation of CG100/500.
2. The same cable placement, include Power cord, ground wire, RJ11 and RJ45 cables.
3. The same cable length, it would be best to use the same cable for each test.
4. Ground connection point must be connect to the same point for each test and has good connection.

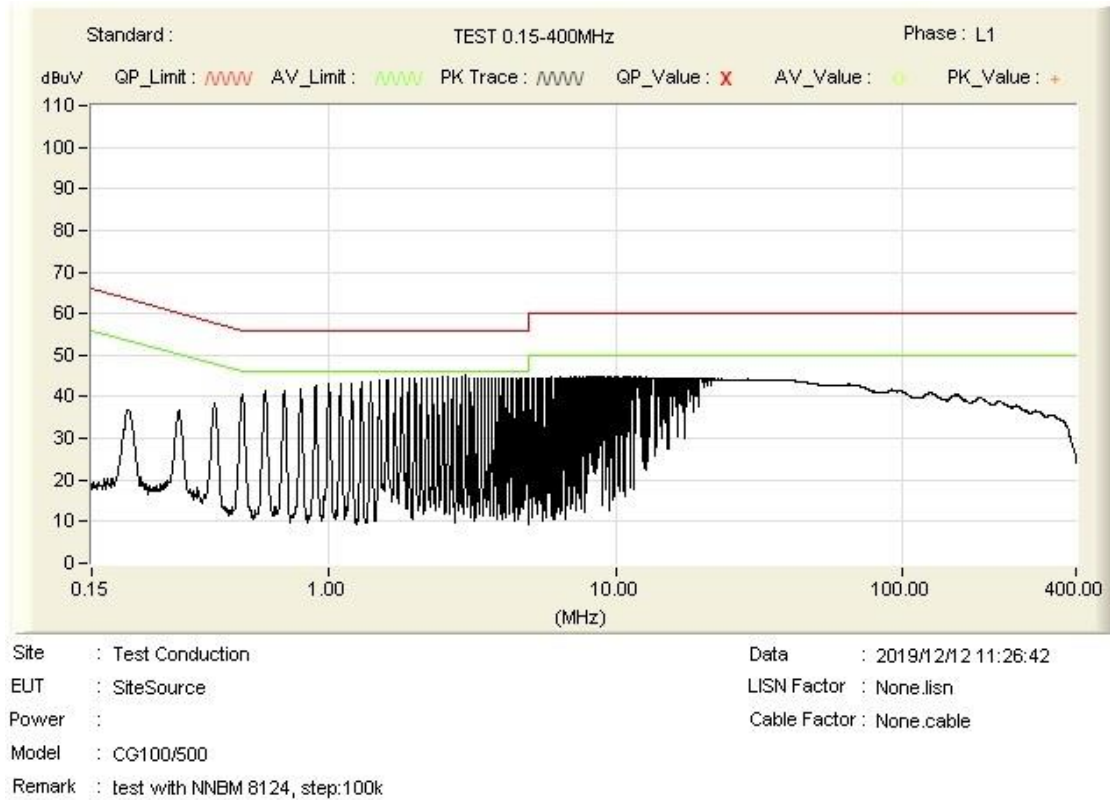


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6. Typical data

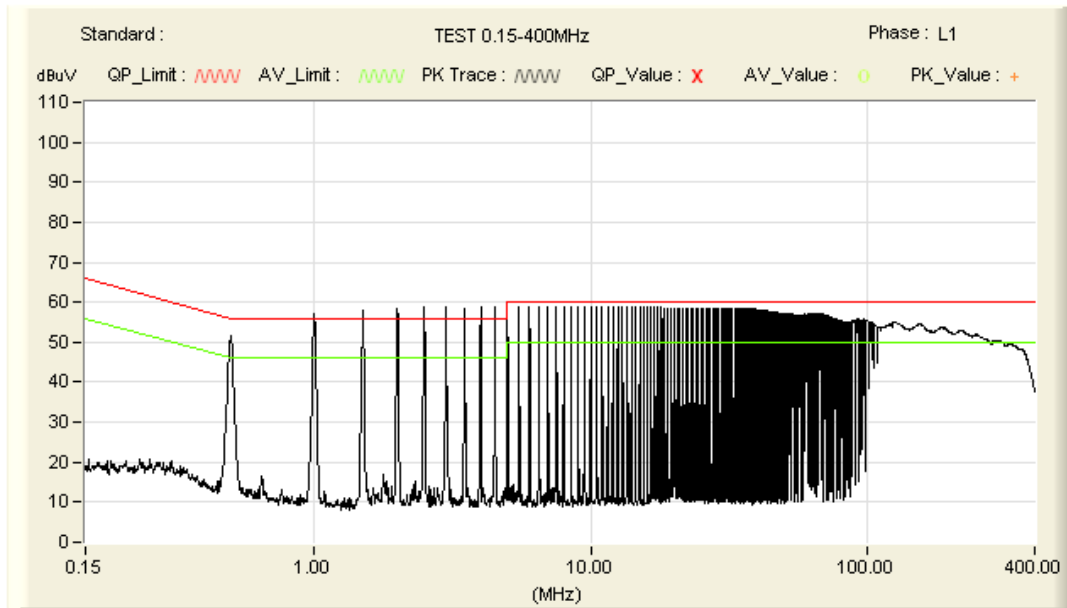
Step: 100kHz



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Step: 500kHz



Site : Test Conduction
EUT : SiteSource
Power :
Model : CG100/500
Remark : test with NNBM 8124, step:500k

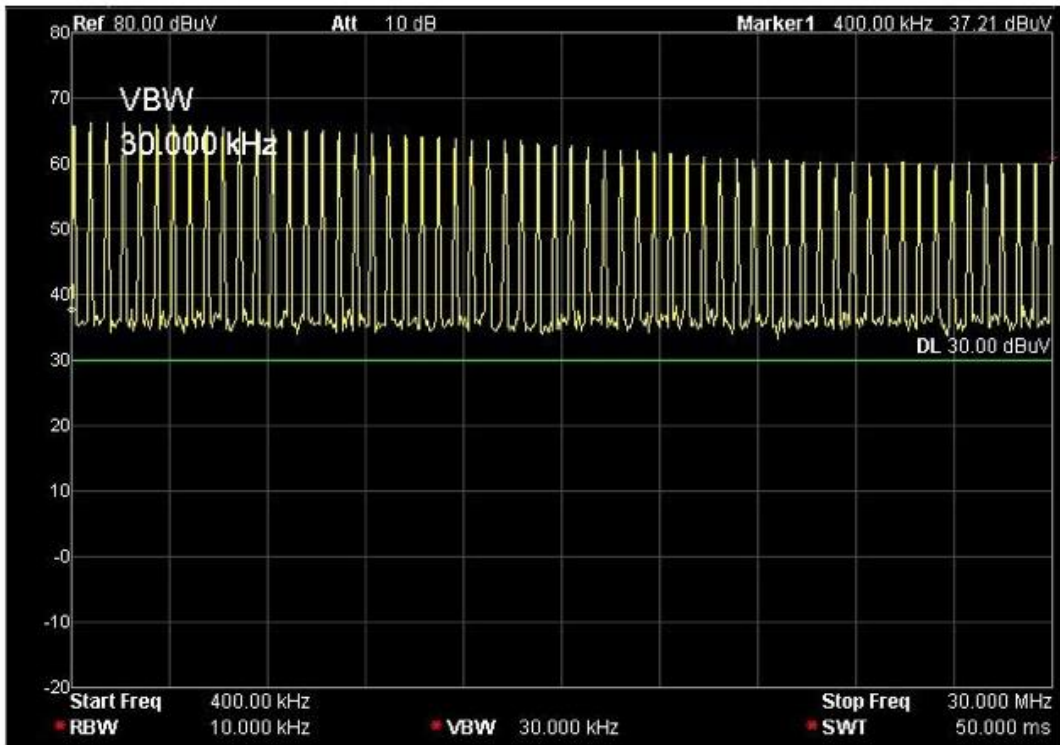
Data : 2019/12/12 11:14:43
LISN Factor : None.lisn
Cable Factor : None.cable



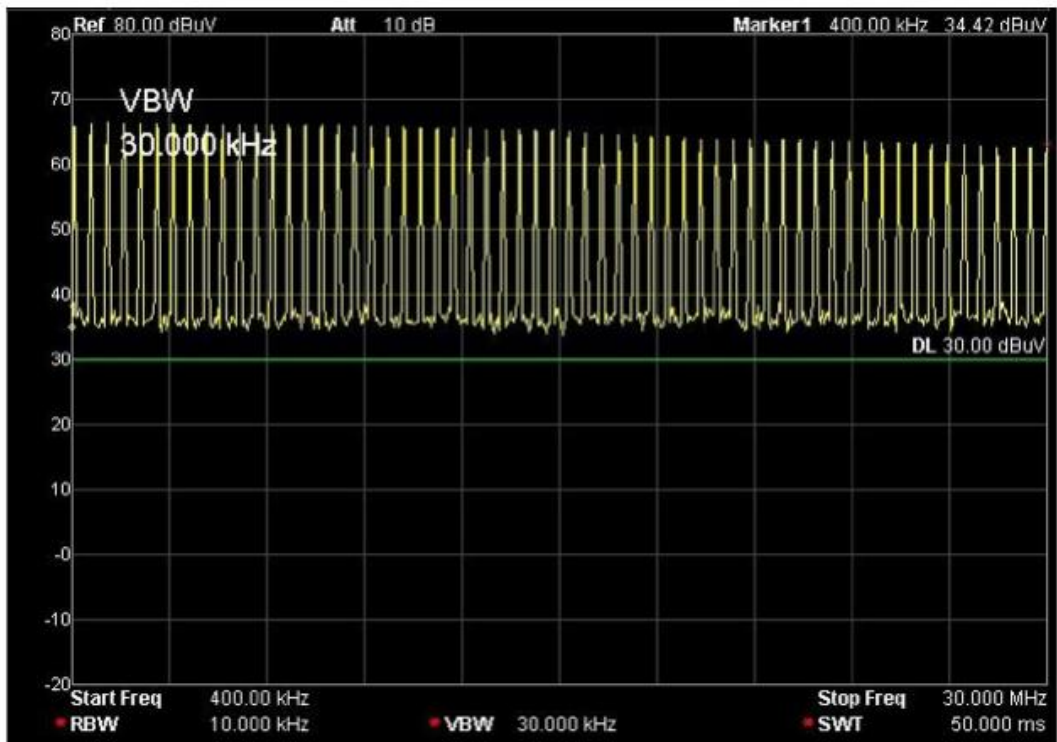
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ISN of RJ45 (RBW=10kHz, VBW=30kHz)



ISN of RJ11 (RBW=10kHz, VBW=30kHz)



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