

# Quasi-peak Pulse Signal Generator

## RPG1030



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## 1. Summary

**RPG1030** is the QP pulse Signal generator in accordance with CISPR16 standard, used for the calibration of the Quasi-peak value detector of EMI receiver B waveband. According the requirement of CISPR16-1 and GB6113, the EMI receiver should be able to calibrate both the accuracy of the constant amplitude RF signal and the response characteristics accuracy of the pulse signal. The QP detector of the EMI receiver is, unlike the normal spectrometer, specially designed for measuring interference signal.

**RPG103** QP pulse signal generator can be used for the measuring of receiver pulse response by the receiver producer and metering organization.

## 2. Product Introduction



Mark Number	Function
1	Mainframe power supply switch
2	Display current frequency
3	Frequency stepwise setting, 10Hz and 1Hz optional
4	Frequency adjusting rotating knob
5	Signal output switch
6	Signal polarity selection
7	Output attenuator, 1dB stepwise
8	Signal output port, Type N port

### 3. Product specification

Calibration Frequency Range	150k-30MHz
QP Output Value (attenuator zero)	60dBuV (Pulse repeating frequency=100Hz)
Output Impedance	50Ω
Pulse Repeating Frequency	1Hz-200Hz optional
Pulse Frequency Accuracy	100PPM
Pulse Voltage Amplitude	26.3V/50 Ω load
Pulse Width	6ns
Output Attenuator	0-50dB
Operating Position	Vertical
Operating Temperature and Humidity Requirement	0 ℃ to 40 ℃, 80%RH or less
Storing Temperature and Humidity Requirement	-40 ℃ to 60 ℃, 80% RH or less
Maximum Size	43*41*15cm
Weight	5.5kg

### 4. Operating Method

- ✧ Connect the output port of RPG1030 QP value pulse signal generator to the input port of the receiver under test using RF cable.
- ✧ Since the output voltage of our pulse signal generator is up to 26.3V, the pulse voltage range of the receiver under test should be checked before putting into operation, and the attenuator should be on and be at least 10dB. For our EM5080 series receiver, attenuator of 10dB is necessary.
- ✧ Set the attenuator of RPG1030 to 0dB and turn on the power supply.
- ✧ Adjust the rotating knob for proper pulse repeating frequency and turn on the output signal switch.
- ✧ Read the QP value on receiver

The pulse response test form of B waveform (150k-30MHz) receiver is attached below.

Pulse Repeating Frequency	Theoretic al Value	Pulse Response	Limit Value	Acceptable Reading Range
[Hz]	[dBuV]	[dB]	[dB]	[dBuV]
100	60	0(Ref.)	0(Ref)	60
20	53.5	-6.5	+/- 1	52.5-54.5
10	50	-10	+/- 1.5	48.5-51.5
2	39.5	-20.5	+/- 2	37.5-41.5
1	37.5	-22.5	+/- 2	35.5-39.5
Single Pulse	36.5	-23.5	+/- 2	34.5-38.5

**Attention:**

- The output voltage of the pulse generator is relatively high, so any improper operation can easily damage the receiver. The QP value detector adjusting the receiver should be in the hand of professional crew, who should carefully check the instruction manual or contacting the company before adjustment.
- The pulse generator shouldn't be used to adjust informal receiver or spectrometer, and EUT can be damaged if you insist. Our company will not be responsible for that.
- Our company will not be responsible for the damage of the machine due to the lack of proper attenuator on pulse generator.

**5. Packing List**

Packing List	
Name	Amount
Mainframe	1
Power supply cable	1
Instruction manual and warranty Card	1
Test report	1

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