Aditeg

INSTRUCTION MANUAL

RG450
RF SIGNAL GENERATOR

RG450 RF SIGNAL GENERATOR

1、Summary

RG450 is a RF Signal Generator composed with high-quality audio signal generator、FM stereo signal generator and RF signal generator. It has advantage of fixed amplitude of FM、AM circuit, steady function and good waveform.

RG450 RF Signal Generator is in good performance, novel appearance and etc, it is the ideal signal generator unit for science investigation, college, factory, electronic appliance maintenance and etc.

2、Technical data

2.1 RF signal Generator

2.1.1 Frequency: 100KHz-150MHz

Frequency range	Frequency range (MHZ)	Frequency departure (%)
1	FM Stereo (88-108)	
2	0.1-0.33	5
3	0.32-1.06	5
4	1-3.5	5
5	3.3-11	6
6	10-35	6
7	34-150	8

2.1.2 Internal modulation: 1KHz audio signal

2.1.3 External modulation: input resistance less than 600 Ω

input amplitude less than 2.5V

2.1.4 Output amplitude: no less than 50mVrms (attenuation 20dB), continuously adjustable

2.2 Audio signal generator

2.2.1 Frequency: 1KHz±10%

2.2.2 Distortion: <1%

2.2.3 Audio output signal: micro-volt to 1Vrms continuously adjustable

2.3 FM stereo signal generator

2.3.1 Frequency: 88-108MHz±1%

2.3.2 Pilot frequency: 19KHz±1Hz

2.3.3 1KHz audio internal modulation: Left (L), Right (R), and Left + Right (L+R)

2.3.4 External modulation: input resistance less than 600 Ω

input amplitude less than 15mV

Input jack: Left (L) and Right (R)

2.3.5 Output amplitude: no less than 50mVrms, continuously adjust

2.4 Operating condition

2.4.1 Operating temperature :0~40℃

2.4.2 Relative humidity: <90%(40℃)

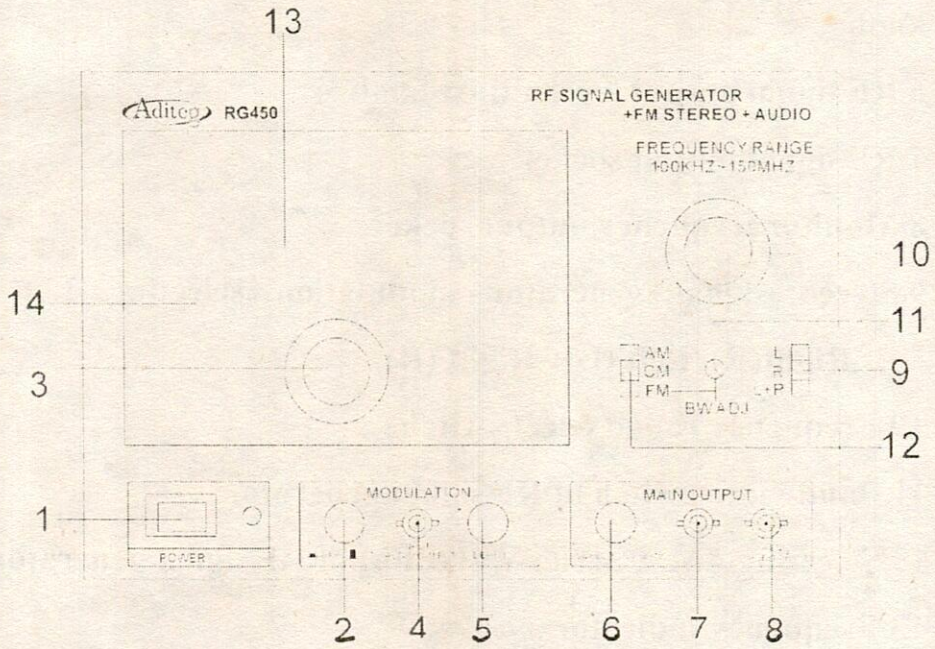
2.4.3 Input voltage: 220VAC±10%/50Hz

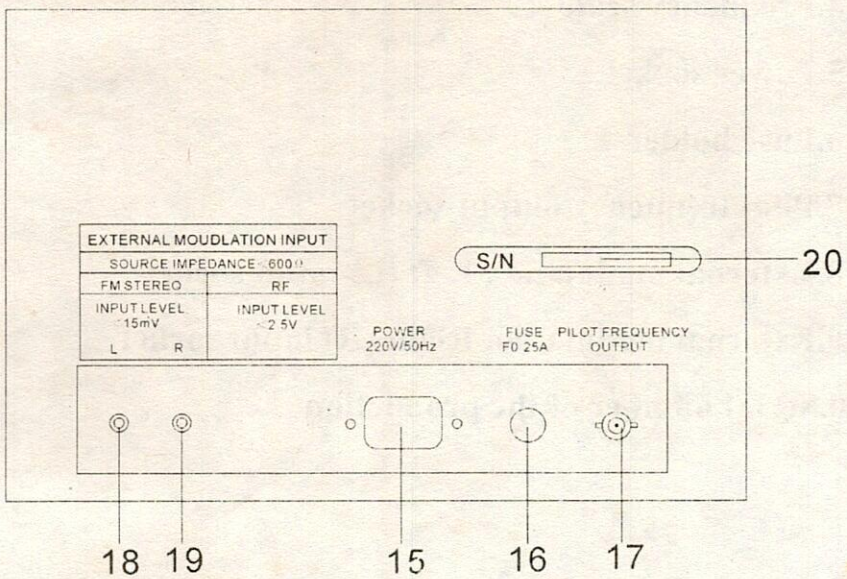
2.4.4 Power consume: <4W

2.5 Dimensions: 220(W)×160(H)×240(D)mm

2.6 Weigh: 4Kg

3、Controls of the unit





1.Power switch (indicator LED)

2.Internal or external modulation select switch

3.Frequency adjust switch

4.Audio signal output and external signal input socket

5.Modulation depth adjust and audio signal output level adjust knob

6.RF signal output level adjust knob

7.RF signal output socket

8.Monitor frequency output socket

9.Stereo signal generator modulation selecting Left (L), Right(R), Left (L)+ Right (R)

10.Frequency range select switch

11.Bandwidth switch of RF signal generator

12.Selecting AM, Carrier-wave, FM of RF signal generator

13 Frequency indicator

14.Frequency scale

15.Power socket

16.Fuse holder

17.Pilot frequency output socket

18.External modulation Left (L) input socket

19.External modulation Right (R) input socket

20.Serial number of the production

4、Operating method

4.1 Preheating: Connect the power, then turn on the power switch (1). The LED indicator illuminating. It need 3-5minutes for preheating.

4.2 RF signal generator: Put frequency select switch (10) on fixed frequency range which you need. Put modulation switch (12) on AM, CW, FM as you need. RF signal output amplitude can be adjusted by knob (6), and when the signal's amplitude is large you can pull the knob (6) to attenuate 20dB. RF signal is output by socket (7). You can connect a external frequency counter to switch (8) to check the frequency. When press the switch (2), you can connect the external signal to socket (4) for modulation; When switch (2) is spring out, you can use internal modulation and audio signal output by socket (4). When at modulation state, you can choose mode AM, CM or FM by switch (12).

4.2.1 Bandwidth adjustable: When under normal working condition of a medium frequency amplifier and a frequency discriminator of your receiver system, setting frequency of RF signal generator at medium frequency (FM medium frequency in your country), then adjust "Bandwidth" (11) (clockwise), pay attention to the waveform in order to make the waveform which display on a oscilloscope undistorted. And listening to the sound from the amplifier to adjust bandwidth to make the sound loudest. In the process of adjust medium frequency amplifier and frequency discriminator, we need to gradually adjust "Bandwidth" (11) to get the best effect .