

IR Remote Control Code Analyzer 2018 Professional

(IR protocol analyzer)

Keyword: IR remote test, IR remote tester, Universal (IR) Remote control tester, IR Remote code tester, Infrared Remote Control Tester

Infratector Remote Control Tester Infrared Detector

<[IR Remote Control Code Analyzer](#)> a universal application for automatic decoding many types of infrared remote control protocol packets, Application processes IR signal from a remote control and compares it with its own database of known protocols. When a match is found, packet is decoded and its characteristic is displayed to user (including protocol name, description, decoded data and graph with timing).

[Construction]

Name: IR Remote Control Code Analyzer

Software 1: IR Remote Control Code Analyzer 2018-Professional

Software 2: IR Remote Tester - Professional V2.0

Receiver: YG-920 V13.0 (RS-232 + USB2.0)

Others: USB Cable, CD ROM

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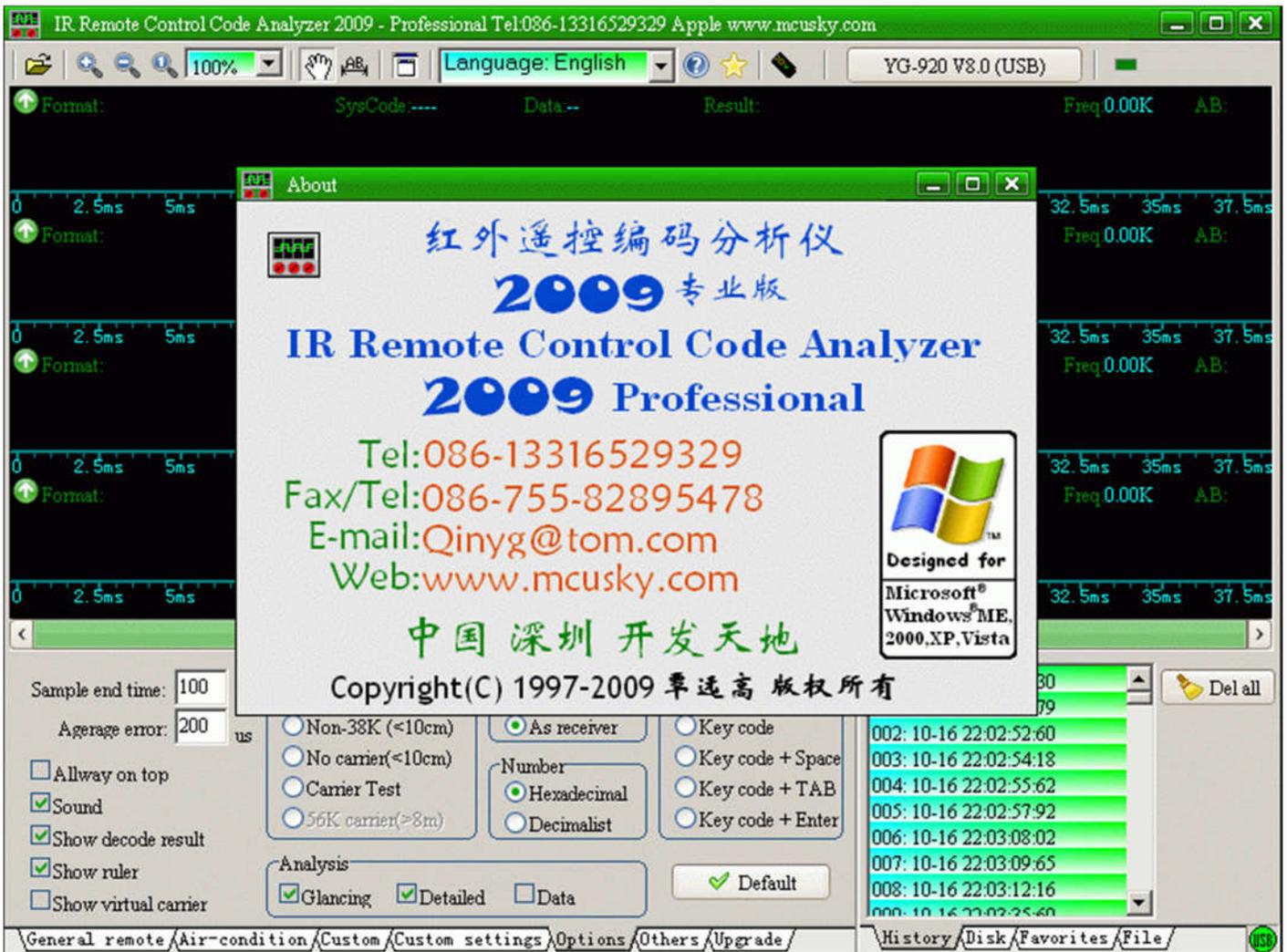
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[[IR Remote Control Code Analyzer 2008 - Professional](#)]

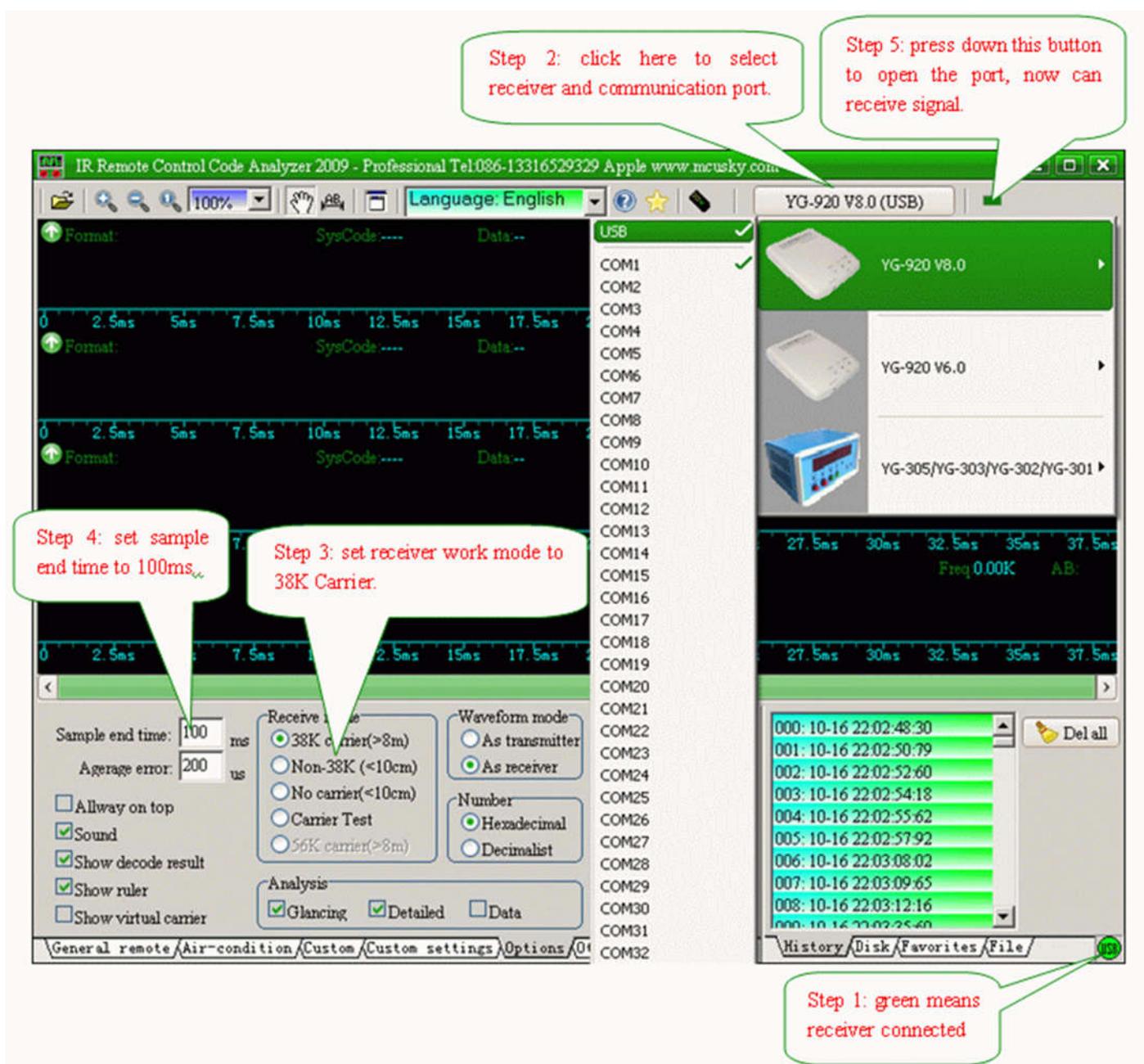


[[system requirements](#)]

1. Intel® Pentium® II or AMD Athlon processor (1GHz, 256MB).
2. Microsoft® Windows® Win98, WinMe, WinNT, Win2K, Win2003, WinXP, Vista.

[[Fast installation for IR Remote Control Code Analyzer 2014 - Professional & YG-920 V13.0](#)]

1. Copy the directory "IRReader2014" to your harddisk, remove all attributes of all files, or run setup.exe.
2. If using RS-232, please plug in DC9V, connect RS-232 port to COM1 or COM2, goto step 4.
3. If using USB port, connect USB port to PC's usb port, PC will auto install driver for receiver.
4. Run "IRReader.EXE", refer to step 1 to step 5 below.



[Features]

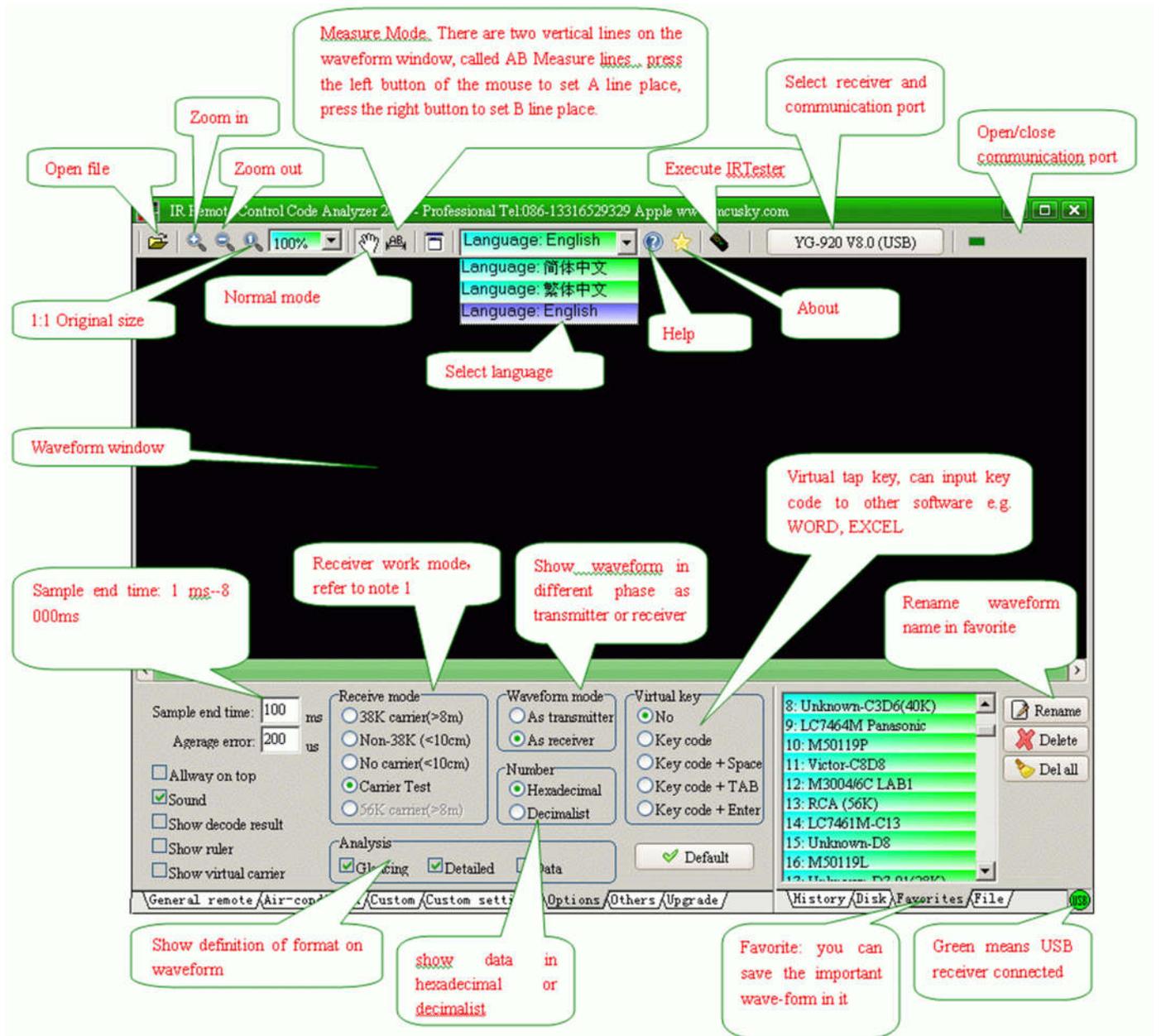
1. The intact wave-form can be showed clearly and steadily on the computer, this is that most of the oscilloscope can't realize.
2. It can test the width of pulse, the length of code, Number of bits, lead code, system code, key code, repeat code, etc.
3. Users can define the methods of decoding by themselves.
4. Save the history notes voluntarily.
5. There are 4 channels for showing the wave-form ,and it's easy to compare for wave-form , each channel can work in one of two modes.
6. Support up to 130 kinds of general formats.
7. Support up to 200 kinds of air-condition formats.
8. The interface is friendly and beautiful, and you can set the interface what you like. ---more changes in 2009
9. Waveform is animated. ---new in 2009
10. Users can save, review and share the wave-form.
11. Zoom in, Zoom out, showing of average value.
12. Can show phase as transmitter or receiver.
13. Users can drag the waveform from showing window to favorite box and save it.
14. Measure time between any two points.
15. Show result in big character.
16. Can show definition of format. ---new in 2009
18. Can create referenced waveform. ---new in 2009
19. Can show virtual carrier. ---new in 2009
20. Can indicate error time on waveform when error occur. ---new in 2009
21. Can show data in hexadecimal or decimalist. ---new in 2009
22. Virtual tap key, can input key code to other software e.g. WORD, EXCEL.
23. Support Win98, WinMe, WinNT, Win2K, WinXP, Win2003, Vista.

24. Sound clue on.

25. It can use to volume-produce when working with <IR Remote Tester - Professional V2.0 >.

26. The receiver YG-920 can use to control PC when working with <PC UltraRemote - Professional V3.0>.

[Using]



[Note 1]

Receiving Mode.

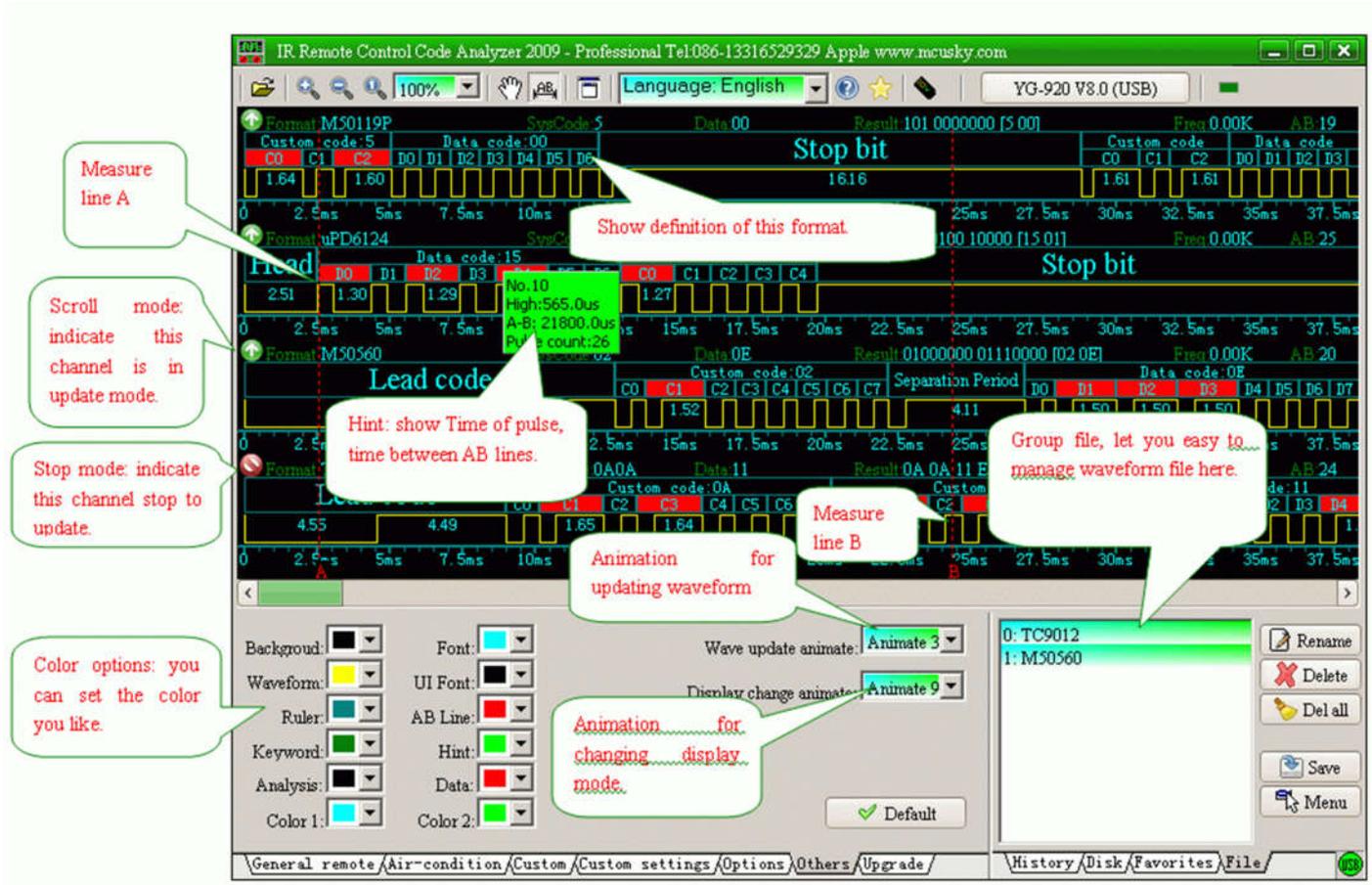
a. 38K far distance mode: Use this mode usually, by 38KHz receiver , the distance can reach to 10m.

b. Not 38K near distance mode: By photodiode, can test carrier from 0Hz to 120KHz, the 10cm distance has the best effect.

c. No carrier near distance mode: used to receive the remote control signals without carrier. For example: M708 format, the 10 cm distance has the best effect.

d. Carrier frequency test: In this mode, IRReader can read the waveform of the carrier, like the follow figure:



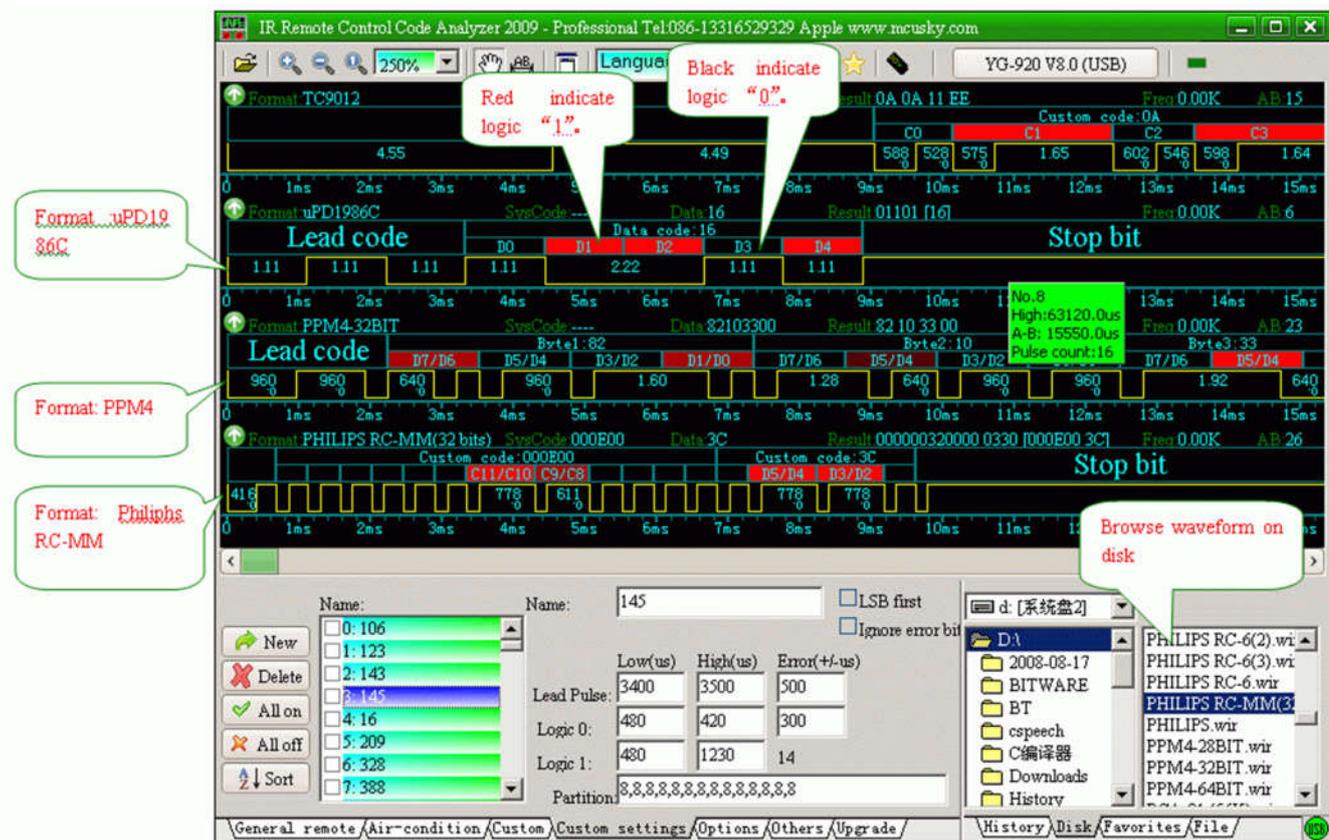


[Note 2]

Channel work mode:

Stop: In this mode doesn't receive any waveform

Scroll: receives all kinds of wave form , the waveform is showed by scrolling in the channel which has been set to scroll mode . For example . the channel 1.2.3has been set scroll mode, so the signals from the sampler -> channel 3 ->channel 2->channel 1.



[How to setup Custom Format?]

Most of the IR remote controller coding by width of pulse. the "Custom settings" allow users to define the methods of decoding for the unknown formats.

*Name

You must create a new method First, then input a name you want.

*Low and High pulses of leader code.

The leader code consists of a low and a high pulse, the low ahead, the high behind, the unit is us, generally more than 100 us, not have to input the unit, for example set 1000 us, it is just ok to input "1000"directly, If no leading code, both are set to "0".

* Low and High pulses of Bit 0/1.

A bit 0/1 is also consists of a low and a high pulse, the low ahead, the high behind, the unit is us ,generally, more than 100 us, not have to input the unit ,For example set 1000 us ,it is just OK to input "1000" directly.

*Error range.

Allow some error for time of pulse when decoding, for example low pulse of bit 0 is set "500",high pulse is set "1000" , error is set "200", means when low pulse that between 300us and 700us,high pulse between 800us and 1200us, will be decoded to bit 0.

*Partition

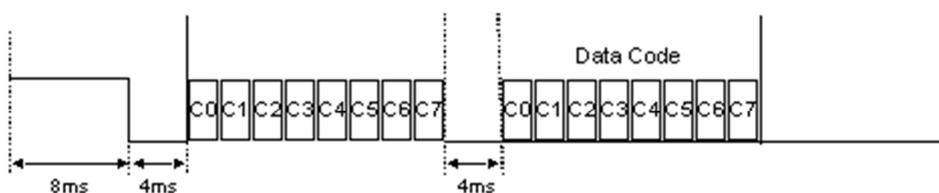
Generally, a frame of signals consists of leader code ,custom code, data ,etc, each of them consists of some bits, they will be showed separately when showing the results of the decode, for example "8,8,8,8",means a controller consists of 8 bits custom code, 8 bits inverse code of custom code. 8 bits data and 8 bits inverse code of data. Each must be more than or equal to 1,less than or equal to 32, divided by ",".

*LSB first

Means that low bit sent first, otherwise high first.

***Ignore error bit**

A frame of signals contain some bit that neither belong to 0 nor 1 sometimes, we must ignore them and go on decoding, for example M50560, there is a separation bit signals, neither belong to 0 nor 1, if this checkbox has been selected, it can be decoded normally, if don't selected, it will show the wrong information when decoding.



IR Remote Control Code Analyzer 2009 - Professional Tel:086-13316529329 Apple www.mcusky.com

Format uPD1986C SysCode: Data:16 Result:011011161 Freq:0.00K AB:6

Lead code D0 D1 D2 D3 D4 Stop bit

Format PPM4-32BIT SysCode: Data:82103300 Result:82 10 33 00 Freq:0.00K AB:23

Lead code D7/D6 D5/D4 D3/D2 D1/D0 D7/D6 D5/D4 D3/D2 D1/D0 D7/D6 D5/D4

Format PHILIPS RC-MM(32 bits) SysCode:000E00 Data:3C Result: Custom code:000E00 Freq:0.00K AB:26

Custom code:000E00 C11/C10 C9/C8 D5/D4 D3

Virtual carrier

If you want to get real carrier, please select "Carrier test mode", and then remote aim at "Non-38K" window on sampler within 10 cm.

If virtual carrier, frequency of carrier is 0.00K here.

If real carrier, frequency of carrier will be show here

Virtual carrier

Sample end time: 100 ms Average error: 200 us

Carrier mode: 38K carrier(>3m) Non-38K (<3m) No carrier(<3m) Carrier Test 56K carrier(>8m)

As transmitter: As receiver

Number: Hexadecimal Decimalist

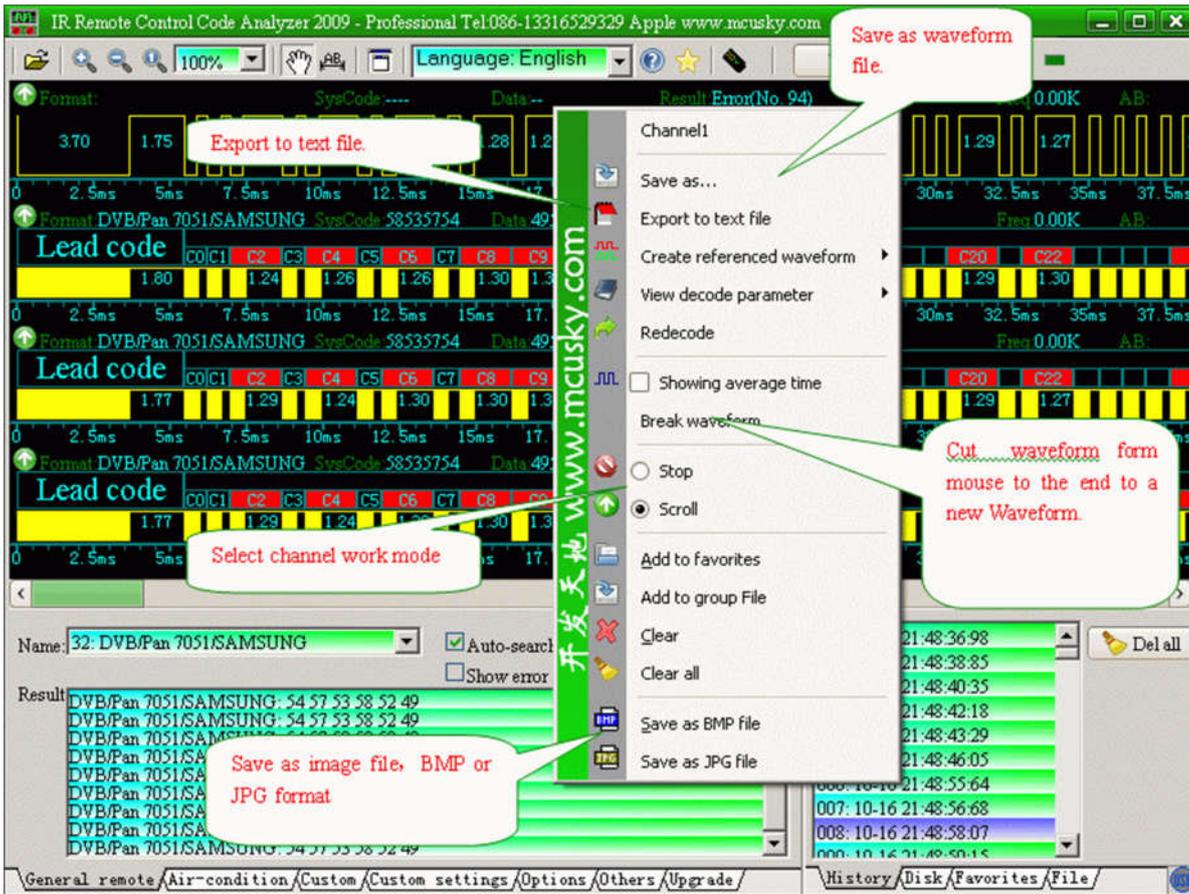
Virtual key: No Key code Key code + Space Key code + TAB Key code + Enter

Analysis: Glancing Detailed Data

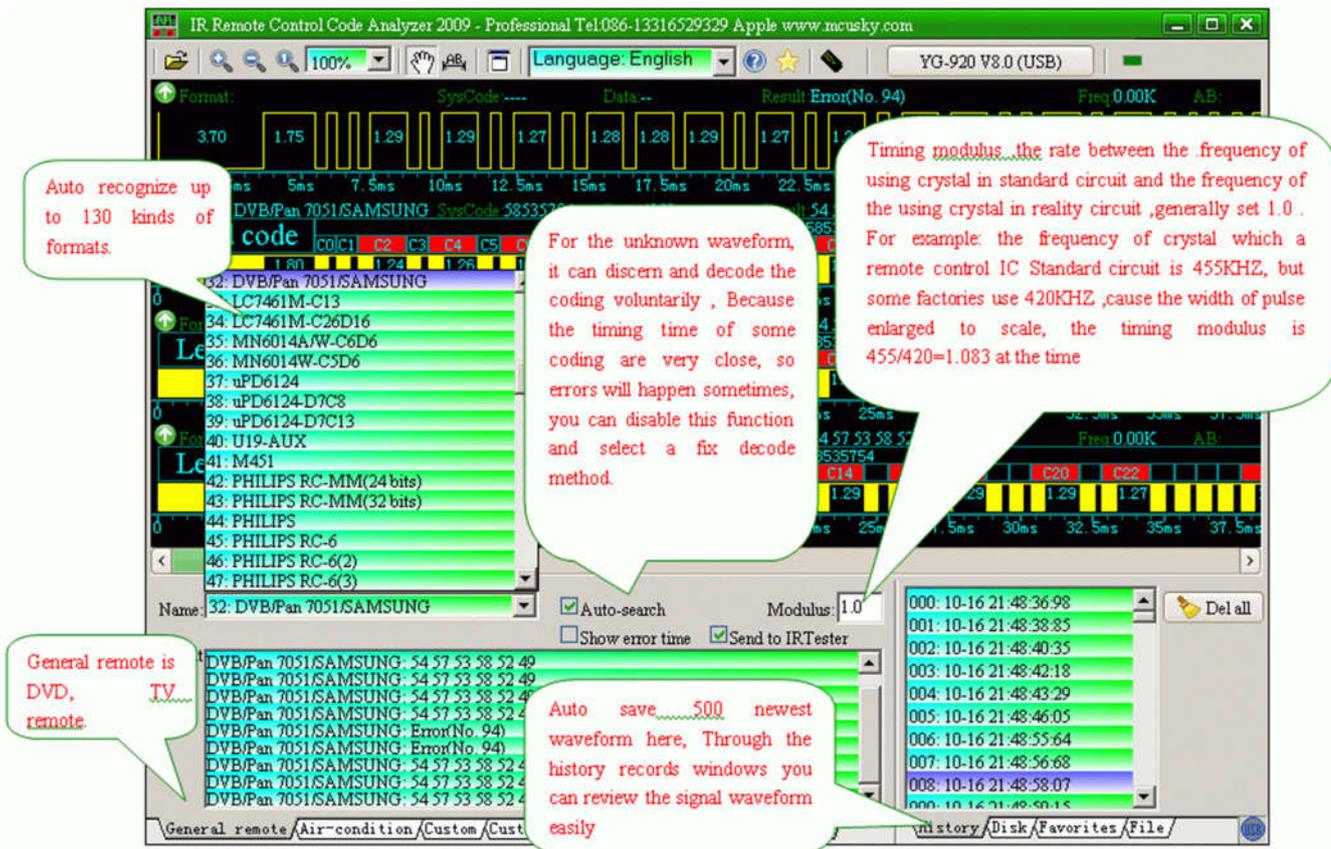
General remote / Air-condition / Custom / Custom settings / Options / Others / Upgrade

History / Disk / Favorites / File

[Menu]



[General remote]



[Air-condition remote]

The screenshot displays the 'IR Remote Control Code Analyzer 2009' software interface. The main window shows a list of air-conditioner brands and models, including TOSHIBA 1-3, FUJITSU 1-5, CARRIER 1-3, MCQUAY, and HITACHI 1-4. A callout bubble on the left states: 'Auto recognize up to 200 kinds of air-condition formats.' The waveform analysis area shows a 'Lead code' with a frequency of 0.00K and a modulus of 1.0. A callout bubble on the right states: 'Easy to browse waveform on the disk.' The bottom right shows a file explorer window with a tree view containing folders like 'prog', 'IRReader80', '新版', 'data', 'new_help', and 'tool'. A callout bubble at the bottom center states: 'Partition: how many bits in a section.' The software title bar includes 'Professional Tel:086-13316529329 Apple www.mcusky.com' and the device name 'YG-920 V8.0 (USB)'.

[Receiver]

Model: YG-920

Version: V13.0

Interface: USB2.0 & RS-232



POWER: Power indication.

OK: Send data.

MODE: Indicate 4 work modes of Sampler, see below.

38K: 38KHz receiver.

Non-38K: Photodiode receiver for Non-38K signal.



[Features]

1. The receiver is designed with high-speed 32bits 100Mhz micro-controller and high accurate measuring up to 0.1us.
2. USB2.0 and RS-232 for data transmit.
3. Support up to 8 seconds sample period.
4. Support up to 1024 bits of commands, receive correctly the commands from TV, VCR, VCD, DVD, air-condition remote controllers. Etc
5. Receive the signals directly from the remote controller , need not to open the remote controller when testing.
6. Support 38KHz carrier, non-38KHz carrier, no-carrier signals.
7. It can test frequency of carrier.

[Characteristics]

Carrier	0KHz-120KHz
Carrier frequency range	1. 38KHz far distance: 10m(@ 38KHzcarrier) 2. Non-38K near distance : 5 cm-10cm 3. No carrier: 5cm-10cm 4. Carrier frequency test : 5cm-10cm
Resolving power	0.1us
Float error	1. 38KHz far distance: +/-50us 2. Non-38K near distance : +/-13us 3. No carrier near distance: +/-8us 4. Carrier frequency test : +/-8us
Absoluteness error	+/-0.1us
Max. command	1024 bits.
Max. sample time	8 seconds.
Power supply	DC9V 200mA
Cubage	12cm*8.5cm*2.0cm

[Cautions]

1. In order to achieve the best receiving result, the unit is suggested to be far away from IR interfere sources, not to be straight to the fluorescent lamp, not to be used while several remote controls are working. If the receiving indicator lamp continues flashing, there must be serious interferes around, please adjust the receiver' s position, or change operation environment.

2. Most notebook PCs have IR interfaces, which continue to produce IR signals to search the peripheral devices, and thus disturb the sampling unit. Therefor, when the unit is used with notebook PCs, the PCs' IR windows have to be shielded.

3. Non-38K short distance mode is recommended to use for high precise test.

4. Donot open the unit without our permission, otherwise we will refuse to repair and provide support. Post back to our company for repair if it is normally damaged.