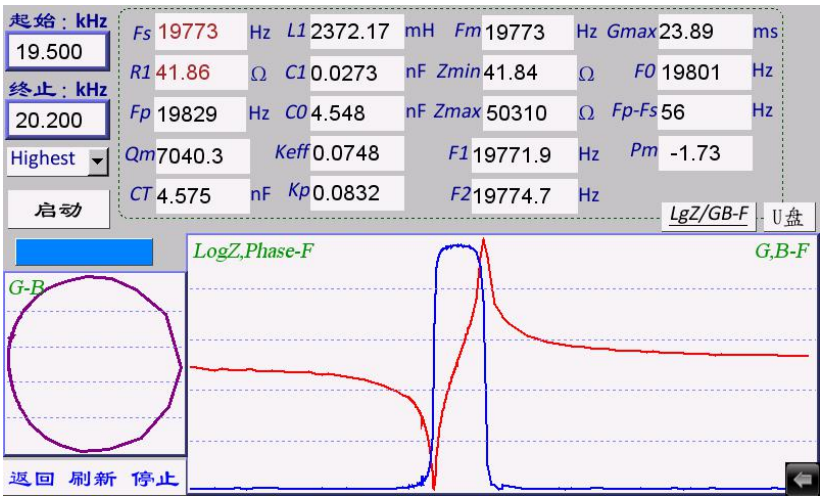
Introduction of Ultrasonic Analyzer PV520A-s

Introduction:

Ultrasonic Analyzer PV520A used for piezoelectric ultrasonic components and equipment for a comprehensive solution.

1. Size: 24cm*14cm*(front 5cm/behind 10cm)，Weight 1.95kg, easy for taking.
2. Large touch screen, without physical buttons, graphic displayed all parameters and, more intuitive.
3. Fast test speed, test 2000point only need 10 seconds.
4. Connect the computer available.
5. The biggest test frequency up to 5 MHZ.
6. Warranty period: 2year.



For ultrasonic measurement, the key point is Admittance circle diagram and logarithmic graph, this two graph can Judge the ultrasonic good or bad. And also will have tens test data as reference:resonance frequency (Fs)、conductance in max(Gmax)、band width(F2-F1),anti-resonance frequency(Fp),quality factor (Qm),Free capacitance(CT)、dynamic resistance(R1)、dynamic inductance(L1)、dynamic capacity(C1)、direct capacitance(C0)、effective electromechanical coupling (keff).

Ultrasonic Analyzer PV520A suit for all ultrasonic components and equipment,like: Piezoelectric ceramic, transducer, ultrasonic cleaning machines, ultrasonic plastic welding machine, acoustic and magnetostrictive materials, ultrasonic grinding mill, ultrasonic atomizer, ultrasonic teeth cleaning and reversing radar, ultrasonic distance measurement, ultrasonic emulsification, ultrasonic cleaning, ultrasonic motors, and other all use of piezoelectric and ultrasonic components and equipment.

Performance：

Item / Performance	*PV520A-s*
Product advantage	portable，Large touch screen
Size	Length:24cm，width:19cm，front height:5cm、behind height:10cm
Frequency range	1KHz~1MHz
Test item	Admittance circle diagram and logarithmic graph and other tens data
Test precision	< 0.1%
Test speed	5second
Frequency precision	±10ppm
Phase resolution	0.15
Work temperature	10～40 degree centigrade
Impedance range	1Ω～1MΩ
Stepped frequency	0.1Hz～any
power	AC100V～AC250V，50～60Hz, 30W
Usage	All Ultrasonic Components And Equipment

Ultrasonic analyzer PV520A test data：

Resonance frequency	Fs
Midpoint power	F1 与 F2
Conductance in max	Gmax
Dynamic resistance	R1
Anti-resonance frequency	Fp
Quality factor	Qm
Free capacitance	CT
Dynamic inductance	L1
Dynamic capacity	C1
Direct capacitance	C0

effective electromechanical coupling Keff

planar electromechanical coupling factor Kp

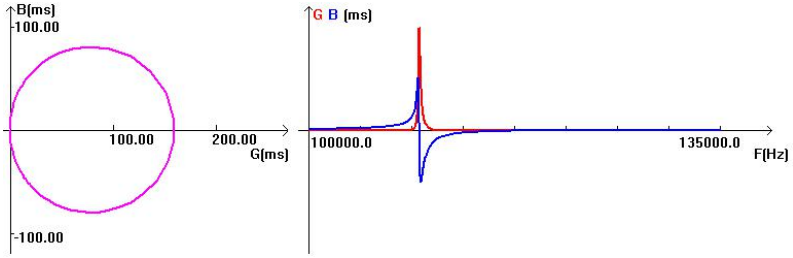
free dielectric constant

Ultrasonic analyzer PV520A can provide graph as follows：

1）Admittance coordinates GBF coordinate curve

Left curve：abscissa——Admittance real part G、ordinate——Admittance imaginary part B

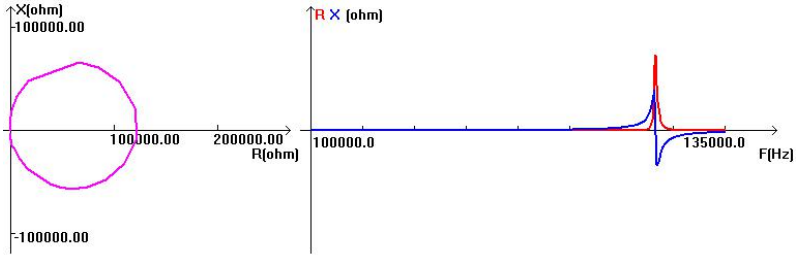
Right curve：red——Admittance real part G、Blue——Admittance imaginary part B、ordinate——frequency



2）Impedance coordinate RXF coordinate curve

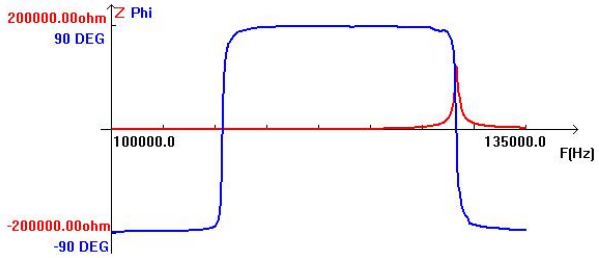
Left curve：abscissa——impedance real part R、ordinate——impedance imaginary part X

Right curve：red——impedance real part R、blue——impedance imaginary part X、ordinate——frequency



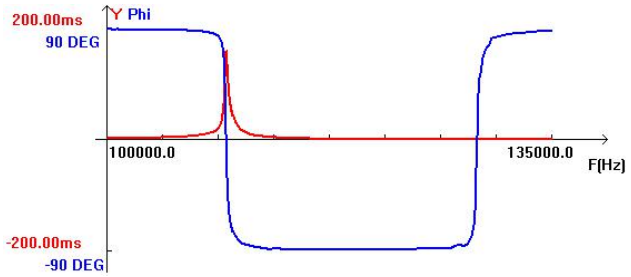
3）Impedance pole coordinate ZθF coordinate curve：

Red —— impedance module|Z|、blue——impedance phase、ordinate——frequency



4）Impedance pole coordinate YθF coordinate curve：

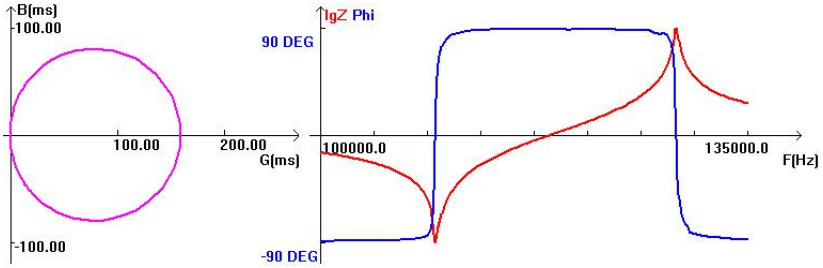
Red —— impedance module|Y|、blue——impedance phase、ordinate——frequency



5）Logarithmic coordinate:

Left curve:abscissa——admittance real part G、ordinate——admittance imaginary part B

Right curve：red——impedance module Logarithmic Lg|Z|、blue——impedance phase、ordinate——frequency



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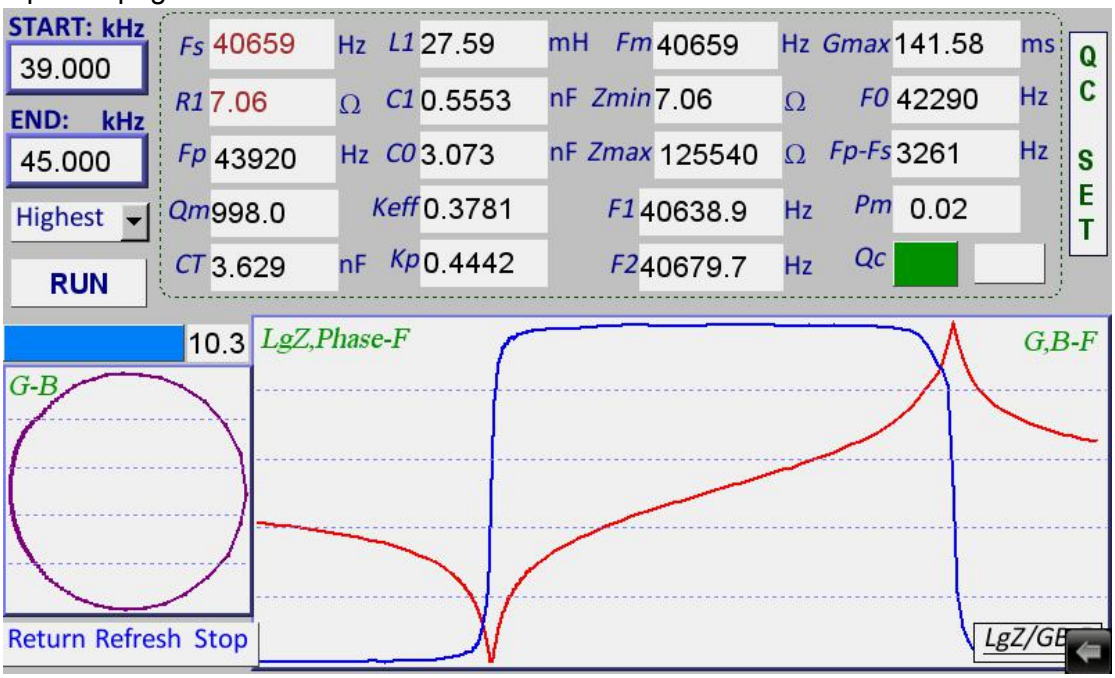
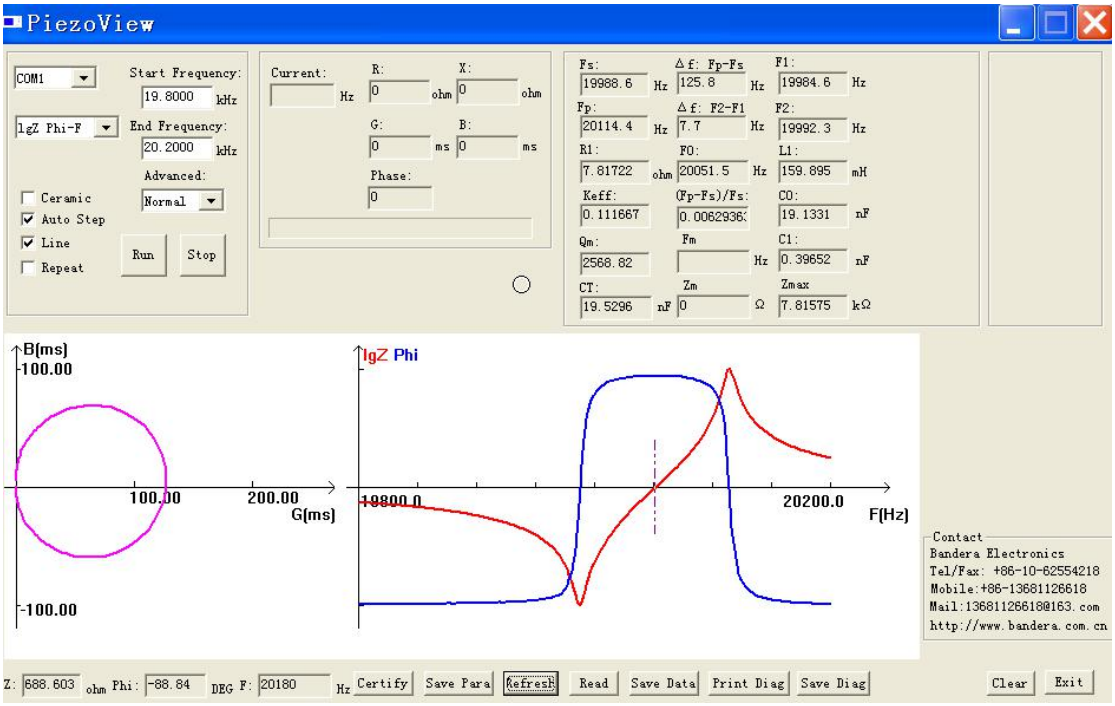
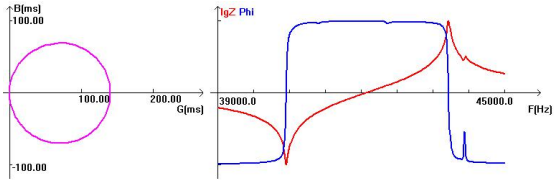


TOUCH SCREEN OPERATE PAGE



COMPUTER OPERATE PAGE

Normal admittance circle diagram and logarithmic graph:



Abnormal admittance circle diagram and logarithmic graph: