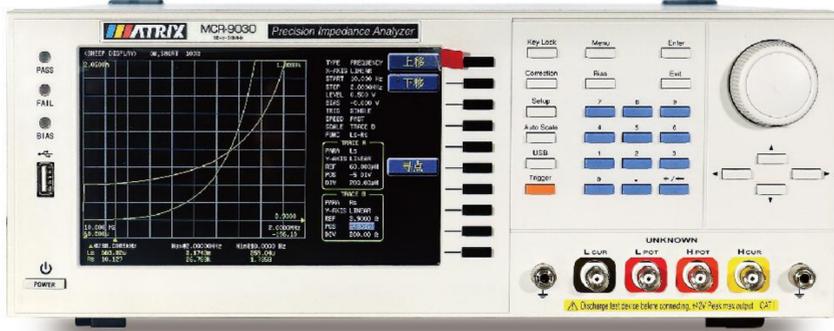# Precision Impedance Analyzer

MCR-9000 Series

CE

| Standard | USB Host☑ RS232☑ Handler☑ USB Device☑ Headphone Jack☐ Foot Pedal☐ | Optional GPIB☐ |

- Signal source frequency range: DC,10Hz~5/10/20/30MHz
- Source position: variable voltage 10mV~2V/Variable current 200μA~20mA
- Basic impedance measuring accuracy: ±0.05%
- Automatic level control(ALC)function
- Output impedance 25Ω/100Ω switchable
- High cost efficient. Have basic measuring, drawing analysis function, also have support dielectric and permeability measurement

- High meauring speed<3mS(fastest)
- Open circuit/ short circuit/ load correction function
- Up to four component parameters can be selected in the meter mode. and the inductance value and DCR value can be measured and displayed simultaneously
- Automatic component classification :Conparator and Bin classification function of HANDLER interface
- Built-in DC bias voltage -12V ~+12V(6632)
- USB/GPIB/RS232/LAN Interface, Optional PC connection data analysis software can be purchased for fast automation and data access
- Ultra low power consumption<30W, fanless design, zero noise

| Select the scan function to display the curve chart
The graph displays the measurement information on the screen as a graph. Through the graph scanning function, the electrical characteristics of the component can be analyzed quickly

| The multi-step list tests the automatic programming capabilities
The customer can perform a series of measurements on the component according to a self-defined sequence of steps When all the test steps are completed, the screen will display the test results of the parameters selected for each step (PASS/HI/LO)or upload the data to the computer
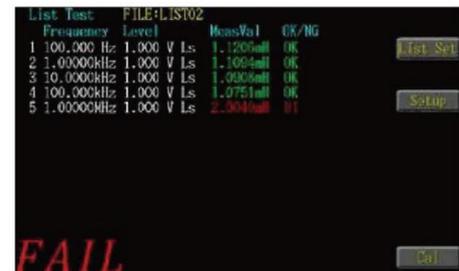
| Seven types, equivalent line analysis(optional)
Modeling and curve simulation of various equivalent circuit models. seven different models. combined with different types of parameters(resistance, inductance, capacitance), can see three or four component values, as well as the self-resonance frequency(SRF)

|A|

|B|

|C|

|D|

|E|

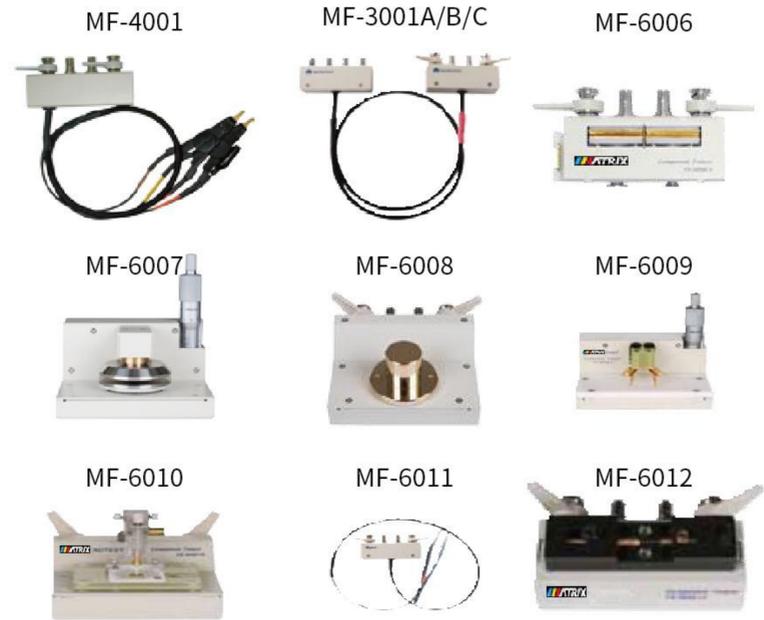|F|

|G|

Standard accessories

- Terminal connection: 4-Terminal Pair, BNC
- Test object speed connection: 4-Terminal
- Size (approximately): 96x34x49mm (W/H/D)
- Weight (approximately): 170g
- Applicable models: 6363-6367/6630/6632
- Frequency: DC to 50 MHZ
- Maximum voltage: ± 42Vpeak max. (AC+DC)
- Startup temperature: 0 ℃ to 55 ° C
- Test object size: 60mm/2mm

High frequency DIP fixture　(MF-6019)

MF-4001　　MF-3001A/B/C　　MF-6006

Optional accessories

- Kelvin testing lead（MF-4001）
- BNC test extension cord（MF-3001A/B/C）
- High frequency DIP component test fixture（MF-6006）
- Dielectric constant fixture（MF-6007）
- Permeability coefficient fixture（MF-6008）
- Material test fixture（MF-6009）
- High frequency precision down-pressure SMD test fixture（MF-6010）
- High frequency precision tweezers type test wire clamp（MF-6011）
- High frequency precision SMD test fixture（MF-6012）
- （Liquid Dielectric Material Test Fixture）（MF-6020）

MF-6007　　MF-6008　　MF-6009

MF-6010　　MF-6011　　MF-6012

Model	MCR-9005	MCR-9010	MCR-9020	MCR-9030
Test parameter	∣Z∣, ∣Y∣, C, L, X, B, R, G, D, Q, θ ,DCR , Vdc-ldc , ESR,μr , εr			
Test frequency	10Hz-5MHz	10Hz-10MHz	10Hz-20MHz	10Hz-30MHz
Minimum resolution	100MHz, 6-digit frequency input			
Accuracy	7ppm±100MHz			
Basic measurement accuracy	0.08%			
AC measuring				
Test signal voltage range	10mV~2Vrms			
Minimum voltage resolution	1mV			
Accuracy	ALC OFF:10%* Set voltage ±2mV　　　ALC ON:6%* Set voltage±2mV			
Test signal current range	200μA~200mArms			
Minimum resolution current	10μA			
Accuracy	ALC OFF:10%* Set current ±20μA　　　ALC ON:6%* Set current ±20μA			
Measuring speed (fastest)	＜3ms			
Output impedance	Switchable 25Ω , 100Ω			
Measurement mode	Meter mode,Multi-step list,Graphics scan			
Calibration function	Open circuit / short circuit / load			
Equivalent Circuit	Series , Parallel			
Equivalent model analysis (optional)	Three components(4 models), four components (3 models)			
Multi-step list test	15 test steps			
Built-in DC bias voltage	-12~+12V , 100Hz~30MHz			
PC LINK / CPK report environment	Optional			
Internal storage memory	100 groups of LCR meter setting files , 50 groups of multi-step test setup(each group have 15 test steps)			
External USB memory	lcr meter setting files, BPM image,multi-step test configuration file,scan image and data			

Parameter measuring range				
	∣Z∣	0.000mΩ~9999.99MΩ	Cs,Cp	0.00000pF~9999.99F
	R,X	±0.000mΩ~9999.99MΩ	Ls,Lp	±0.000nH~9999.99kH
	∣Y∣	0.00000μS~999.999kS	D	0.00000~9999.99
	G,B	±0.00000μS~999.999kS	Q	±0.00~9999.99
	θRAD	±0.00000~3.14159	Δ	±0.00%~9999.99%
	θDEG	±0.000°~180.000°	Rdc	0.00mΩ~99.999MΩ
	εr′ εr′	0~100000	μr′ μr′	0~100000

interface	I/O interface	HANDLER		
	Serial communication interface	USB、RS232、LAN		
	Parallel communication interface	GPIB		

Display	7.0 "TFT , 800*480 color display			
Operating environment	Temperature : 10℃~40℃ , Humidity≤80%RH			
Input power supply	Voltage	90~264Vac	Frequency	47~63Hz
Instrument size (W*H*D)	359*147*343			
Packing size (W*H*D)	495*280*480			
Net weight (kg)	3.95			
Gross weight (kg)	6.3			