AN89603(F) Series Precision LCR Analyzer



Product Overview /

The AN89603(F) Precision LCR Analyzer features "wide frequency range, high testing speed, high precision, and multi-function", and can be widely used for parameter measurement and analysis of electronic components.

Product Features /

- Wide frequency range: 1mHz~300kHz;
- Impedance range: 1mΩ~200MΩ;
- High precision: Basic accuracy ±0.05%;
- High testing speed: Fastest measuring speed of 5ms;
- Intuitive display: 4 parameters displayed simultaneously;
- Multi-function: LCR measurement, 801-point list sweep, series/parallel parameter analysis, and high-speed sorting.

Product Application /

- Impedance measurement and parasitic parameter analysis of resistors;
- Impedance measurement and dissipation factor (tan δ) measurement of capacitors;
- Impedance and Q parameter measurement of inductors and transformers;
- Static capacitance, loss, and resonant frequency measurement of piezoelectric devices;
- Impedance evaluation of switches, relays, and cables;
- Equivalent circuit analysis of electronic components.

Product Specifications /

Product Model		AN89603(F)
Basic Specifications	Test Mode	1) LCR mode: Single-condition measurement 2) List sweep mode: Frequency sweep, level sweep, and bias sweep (2-801 measurement points) 3) Panel sweep mode: Continuous measurement of saved panels
	Measurement Parameter	Z - Impedance, Y - Admittance, θ - Phase Angle, X - Reactance, G - Conductance, B - Susceptance; Rs - Equivalent Series Resistance, Rp - Equivalent Parallel Resistance, Rdc - DC Resistance; Cs - Equivalent Series Capacitance, Cp - Equivalent Parallel Capacitance; Ls - Equivalent Series Inductance, Lp - Equivalent Parallel Inductance; D - Dissipation Factor, Q - Quality Factor, σ - Conductivity, ε - Dielectric Constant;
	Impedance Measuremen Range	Impedance range: 1mΩ-200MΩ 12 selectable ranges: 10mΩ, 100mΩ, 1Ω, 10Ω, 100Ω, 1kΩ, 10kΩ, 100kΩ, 1MΩ, 10MΩ, 100MΩ, 200MΩ
	Display Range	Z：0.00m~9.99999GΩ Y：0.000n~9.99999GS θ：±0.000°~999.999° Rs、Rp、Rdc、X：±0.00m~9.99999GΩ G、B：0.000n~9.99999GS Cs、Cp：±0.0000p~9.99999GF Ls、Lp：±0.00000μ~9.99999GH D：±0.00000~9.99999 Q：±0.00~9999.99 σ：±0.00000~999.999G ε：±0.00000~999.999G
	Measurement Method	Five terminals
	Impedance Test Accuracy	Basic accuracy Z: 0.05% Indicating value θ: 0.03°
	Measuring Apeed	FAST/MED/SLOW
	Measurement Time	Fastest 5ms (1kHz, FAST, delay and compensation OFF)
Signal Source Specifications	Signal Source Frequency	1mHz~300kHz
	Frequency Resolution	1mHz ~ 99.999Hz 1mHz step; 100.00Hz ~ 999.99Hz 10mHz step; 1.0000kHz ~ 9.9999kHz 100mHz step; 10.000kHz ~ 99.999kHz 1Hz step; 100.00kHz ~300.00kHz 10Hz step
	Signal Source Amplitude	In V mode and CV mode: Signal amplitude 100Ω internal resistance mode: 5mVrms-5Vrms 25Ω internal resistance mode: 5mVrms-2.5Vrms Setting resolution 100uVrms Setting accuracy V mode: ±(10%*Setting value+1mVrms) CV mode: ±(6%*Setting value+1mVrms)
		In C mode and CC mode: Signal amplitude 100Ω internal resistance mode: 50uArms-50mArms 25Ω internal resistance mode: 50uArms-100mArms Setting resolution 1uArms Setting accuracy C mode: ±(10%*Setting value+10μArms) CC mode: ±(6%*Setting value+10μArms)
	Signal Source DC Bias	100Ω internal resistance mode: -5V~5V, 10mV resolution 25Ω internal resistance mode: -2.5~2.5V, 10mV resolution
	Output Impedance	100Ω internal resistance mode: 100Ω; 25Ω internal resistance mode: 25Ω
Monitoring Function	Monitoring Accuracy	Monitoring voltage Monitoring range: 0.000Vrms~5.000Vrms Monitoring accuracy: When >5mVrms: ± (3%*Indicating value + 0.5mVrms) When ≤5mVrms: ± (12%*Indicating value+0.1mVrms) Monitoring current Monitoring range: 0.000mArms~100.0mArms Monitoring accuracy: When >50uArms: ± (3%*Indicating value + 5μArms) When ≤50uArms: ± (12% Indicating value + 1μArms)
	DCR (DC Resistance) Measurement	Measurement signal level: 2V fixed
	Compensation	Open-circuit compensation, short-circuit compensation, load compensation; Cable length compensation: 0m, 1m, 2m, 4m
	Contact Check	Detects contact between H_{CUR}-H_{POT} and L_{CUR}-C_{POT}; Five sensitivity thresholds can be adjusted: 10Ω, 50Ω, 100Ω, 500Ω, 1000Ω
	Trigger	Manual trigger, automatic trigger, interface trigger
	Synchronous Output Function	Measurement signal output only during signal measurement
	Average Function	1~256
	Panel Loading / Save	LCR mode: Up to 40 groups
	Storage Function	Can save 32,000 sets of data
	Interface	RS232, USB, LAN, HANDLER, optional GPIB interface
	Dimension(W*H*D mm)	320*88*360
	Weight	5kg

*Any changes to the above parameter specifications will not be notified separately.