# U2826/A High-frequency LCR Meter

### **Features**

- Simultaneously display of four different parameters with flexible combinations
- AC and DC parameters can be measured simultaneously without interference; self-demagnetization
- Test frequency: 20Hz ~ 5MHz, 10mHz step
- Test level: 10mV ~5V, 1mV step
- Basic accuracy: 0.1%
- High speed and efficiency measurement: Max. 180 meas / sec
- Built-in bias voltage: -5V- + 5V; support bias mode
- Auto DUT trigger function: the DUT can be measured once be trigger and the measurement results and discrimination will be displayed.
- Automatic level control (ALC) function of V or I
- Test signal level monitor function of V and I
- Flexible limit comparator: support tolerance mode, sequence mode and parameter exchange
- Rapid and easy determination of Pass/Fail through multi-parameter test function
- Powerful list sweep function: mixed scanning of various excitation source and display of different parameters
- New graphical scanning functions: frequency / level / bias make nuanced analysis of elements
- Complete user correction function: up to 64 dot frequency correction
- Rich communication interfaces: RS232C/USB-CDC/USB-TMC/HANDLER/GPIB
- 2m/4m test cable extension(option)
- Chinese and English operation interface
- Multiple USB storage modes: CSV and TXT format for storing test data, BMP, PNG, GIF formats for stored on-screen images, U disk storage / recall setup files, U disk firmware upgrade
- Storage / recall of Parameters: real-time storage of all parameters without losing after shutdown; supporting internal storage of 120 groups, external storage and recalling of 600 groups



# U2826/A

## **Brief Introduction**

• U2826 LCR Meter is a new generation of impedance test equipment with high accuracy, wide measurement range and six digits resolution. Being possessed with test frequency up to 5 MHz, test voltage of 10mV-5V and built-in DC bias voltage of -5V~5V, it can meet all requirements for measuring components and materials and provide guarantees for production line quality assurance, incoming inspection and laboratory precision measurements. This product can be widely used in electric performance analysis of microphones, resonators, inductors, ceramic capacitors, LCD monitors, analyzes varactor diodes, transformers and so on.

Ultra-fast measurement speed of U2826 Series makes it particularly suitable for automatic production line of inspection machines and frequency response curve analysis of piezoelectric device .

Otherwise, the Handler, RS232C and GPIB interfaces as well as improved command system provided by the instrument make it easier to build the test system.

# **Specifications**

Measurement Function			
Test Parameters	Z ,C,L,R, X,  Y ,B,G,D,Q,0,DCR		
Basic Accuracy	0.1%		
Measuring Speed	Fast: 180, Medium: 25, Slow: 5 (meas/sec)		
Equivalent Mode	Serial, Parallel		
Ranging Mode	Auto, Hold		

Trigger Mode         Internal,Manual,DUT,External,BUS           Correction         Copen / short / load, full frequency, 64 dot frequency correction           Graphics scanning         Frequency, level, bias voltage / current           List sweep         20 points frequency, level, DC bias, DC source           Display type         800x480,7-inch TFT LCD           Memory         Internal:120 groups [U-disk)           Test Sign=***         TH2826         20Hz – 5MHz; resolution:10mHz           Test Frequency         TH2826A         20Hz – 2MHz; resolution:10mHz           Test Level         fs1MHz,10mV – 5V, Resolution: 10mV           Test Level         fs1MHz,10mV – 1V, Resolution: 10mV           Test Level         fs1MHz,10mV – 1V, Resolution: 10mV           Current Mode (in t e r n a) resistance is 1000)         -50mA – 50mA , 100uA step           IPI, G, B         0.00010 – 99.99999MΩ           IYI, G, B         0.00010 – 99.99999MΩ           IYI, G, B         0.00010 – 99.99999           Q(Deg)         -179.9° – 179.9°           Q(Deg)         -179.9° – 179.9°           Q(Rad)         -3.14159 – 3.14159           Q         0.01 – 999.999           DCR         Ima Popensylva           Poss, S / FAIL LeD display <td< th=""><th></th><th></th><th></th><th></th></td<>					
Correction         correction           Graphics scanning         Frequency, level, bias voltage / current           List swep         20 points frequency, level, DC bias, DC source           Display type         800x480,7-inch TFT LCD           Memory         Internal: 120 groups External:600 groups(U-disk)           Test Signal         TH2826         20Hz – 5MHz; resolution:10mHz           Test Signal         TH2826A         20Hz – 2MHz; resolution:10mHz           Output Impedance         10Ω, 30Ω, 50Ω, 100Ω           Test Level         f≤1MHz, 10mV – 5V, Resolution: 10mV           Voltage Mode Internal DC Bias         -5V – +5V, 1mV step           Internal DC Bias         Current Mode (internal presistance is 100Ω)           IYI, G, B         0.000102 – 99.9999MΩ           IYI, G, B         0.000102 – 99.9999MΩ           IYI, G, B         0.000102 – 99.9999MP           L         0.00001pF – 99.9999MP           L         0.00001p – 99.9999MP           C         0.0001p – 99.9999MP           Q         0.1 – 999.999.99           Θ(Rad)         -3.14159 – 3.14159           Q         0.01 – 999.999.99           QCComparator and Interface           Comparator and Interface           Comparature & RS232C/USB-HOST/USB-CDC/ U	Trigger N	/lode	Internal,Manu	ıal,DUT,External,BUS	
Scanning	Correction	on			
Display type   800x480,7-inch TFT LCD			Frequency, level, bias voltage / current		
Memory         Internal: 120 groups External: 600 groups(U-disk)           Test Signal           Test Signal           Test Signal           Test Signal           Test Signal           Test Signal           The stage of the sta	List swee	<b>э</b> р	20 points frequency、level、DC bias、DC source		
External:600 groups(U-disk)	Display t	уре	800x480,7-inch TFT LCD		
The target   T	Memory				
Frequency         TH2826A         20Hz – 2MHz; resolution:10mHz           Output Impedance         10Ω, 30Ω, 50Ω, 100Ω           Test Level         f≤1MHz,10mV – 5V, Resolution: 10mV           Test Level         f≤1MHz,10mV – 1V, Resolution: 10mV           Notage Mode         -5V – +5V, 1mV step           Current Mode (internal passistance is 100Ω)         -50mA – 50mA, 100uA step           Measurement Display Range           IZI, R,X         0.0001Ω – 99.9999MΩ           YIYI, G, B         0.00001uS – 999.9999MΩ           C         0.00001µH – 99.9999mF           L         0.00001µH – 99.99999mF           L         0.00001µH – 99.999999           Θ(Rad)         -3.14159 – 3.14159           Q         0.01 – 999.999 – 999.99%           DCR         Imp — 99.99999 — 99.999           DCR         Imp — 99.99999 — 99.999           Comparator and Interface           Comparator and Interface           Comparator and Interface           Comparato	Test Sign	nal			
Output Impedance         10Ω, 30Ω, 50Ω, 100Ω           Test Level         f≤1MHz,10mV – 5V, Resolution: 10mV           Test Level         f≤1MHz,10mV – 5V, Resolution: 10mV           Notage Mode   -5V – +5V, 1mV step           Current Mode (internal resistance is 100Ω)           Measurement Display Range           IZI, R,X         0.0001Ω – 99.9999MΩ           YI, G, B         0.0001Ω – 99.999999           C         0.00001μ – 99.99999           C         0.00001μ – 99.99999           (P(Rad)         -3.14159 – 3.14159           Q         0.01 – 9999999.99           OCR         1 mm	Test		TH2826	20Hz – 5MHz; resolution:10mHz	
Impedance   10Ω, 30Ω, 50Ω, 100Ω	Frequenc	су	TH2826A	20Hz – 2MHz; resolution:10mHz	
F > 1MHz,10mV - 1V, Resolution: 10mV		ce	10Ω, 30Ω, 50Ω,100Ω		
Internal DC   Bias	Test Leve	el			
Sias			Voltage Mode	-5V — +5V, 1mV step	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			(internal resistance is	-50mA — 50mA ,100uA step	
Y , G, B	Measurement Display Range				
C         0.00001pF - 99.9999mF           L         0.00001µH - 99.99999           D         0.00001 - 9.99999           θ(Deg)         -179.9° - 179.9°           θ(Rad)         -3.14159 - 3.14159           Q         0.01 - 99999.9           Δ%         -999.99% - 999.99%           DCR         1mΩ - 99.9999MΩ           Comparator and Interface           Comparator         10 bins, BIN0 - BIN9, NG, AUX PASS / FAIL LED display           Interface         RS232C/USB-HOST/USB-CDC/ USB-TMC/HANDLER/GPIB(option)/SCANNER(option)           General Specifications           Temperature & Humidity         0° C - 40° C, ≤90%RH           Power Supply         Voltage         99V - 242V           Frequency         47.5Hz - 63Hz           Power Consumption         ≤60 VA           Dimensions (W×H×D)         400mm×132mm×350mm	Z , R,X		$0.0001\Omega - 99.9999M\Omega$		
L       0.00001μH – 99.9999kH         D       0.00001 – 9.99999         θ(Deg)       -179.9° – 179.9°         θ(Rad)       -3.14159 – 3.14159         Q       0.01 – 99999.9         Δ%       -999.99% – 999.99%         DCR       1mΩ – 99.9999MΩ         Comparator and Interface         Comparator       10 bins, BIN0 - BIN9, NG, AUX PASS / FAIL LED display         Interface       RS232C/USB-HOST/USB-CDC/ USB-TMC/HANDLER/GPIB(option)/SCANNER(option)         General Specifications         Temperature & Humidity       0° C - 40° C, ≤90%RH         Power Supply       Voltage       99V – 242V         Frequency       47.5Hz – 63Hz         Power Consumption       ≤60 VA         Dimensions (W×H×D)       400mm×132mm×350mm	Y , G, B		0.0001uS - 999.999S		
D         0.00001 – 9.99999           θ(Deg)         -179.9° – 179.9°           θ(Rad)         -3.14159 – 3.14159           Q         0.01 – 99999.9           Δ%         -999.99% – 999.99%           DCR         1mΩ – 99.9999MΩ           Comparator and Interface           Comparator         10 bins, BIN0 - BIN9, NG, AUX PASS / FAIL LED display           Interface         RS232C/USB-HOST/USB-CDC/ USB-TMC/HANDLER/GPIB(option)/SCANNER(option)           General Specifications           Temperature & Humidity         0° C - 40° C, ≤90%RH           Power Supply         Voltage         99V – 242V           Frequency         47.5Hz – 63Hz           Power Consumption         ≤60 VA           Dimensions (W×H×D)         400mm×132mm×350mm	С		0.00001pF - 99.9999mF		
Θ(Deg)       -179.9° - 179.9°         Θ(Rad)       -3.14159 - 3.14159         Q       0.01 - 99999.9         Δ%       -999.99% - 999.99%         DCR       1mΩ - 99.9999MΩ         Comparator and Interface         Comparator and Interface         Comparator and Interface         Comparator and Interface         Robust / PASS / FAIL LED display         Interface         RS232C/USB-HOST/USB-CDC/ USB-TMC/HANDLER/GPIB(option)/SCANNER(option)         General Specifications         Temperature & Humidity         Power Colspan="2">O° C - 40° C, ≤90%RH         Power Consumption         Colspan="2">Colsp	L		0.00001µH – 99.9999kH		
Θ(Rad)       -3.14159 – 3.14159         Q       0.01 – 99999.99         Δ%       -999.99% – 999.99%         DCR       1mΩ – 99.9999MΩ         Comparator and Interface         Comparator and Interface         Comparator and Interface         Comparator and Interface         RS232C/USB-HOST/USB-CDC/ USB-TMC/HANDLER/GPIB(option)/SCANNER(option)         General Specifications         Temperature & Humidity       0° C - 40° C, ≤90%RH         Power Supply       Voltage       99Y - 242V         Frequency       47.5Hz - 63Hz         Power Consumption       ≤60 VA         Dimensions (W×H×D)       400mm×132mm×350mm	D		0.00001 – 9.99999		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	θ(Deg)		-179.9° – 179.9°		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			-3.14159 – 3.14159		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Q		0.01 – 99999.9		
Comparator and Interface           Comparator         10 bins, BIN0 - BIN9, NG, AUX PASS / FAIL LED display           Interface         RS232C/USB-HOST/USB-CDC/ USB-TMC/HANDLER/GPIB(option)/SCANNER(option)           General Specifications           Temperature & Humidity         0° C - 40° C, ≤90%RH           Power Supply         Voltage         99V - 242V           Frequency         47.5Hz - 63Hz           Power Consumption         ≤60 VA           Dimensions (W×H×D)         400mm×132mm×350mm	Δ%		-999.99% – 999.99%		
$ \begin{array}{c c} \text{Compartor} & 10 \text{ bins, BIN0 - BIN9, NG, AUX} \\ \text{PASS / FAIL LED display} \\ \hline \\ \text{Interface} & RS232C/USB-HOST/USB-CDC/} \\ \hline \\ \text{USB-TMC/HANDLER/GPIB(option)/SCANNER(option)} \\ \hline \\ \text{General Specifications} \\ \hline \\ \text{Temperature & } \\ \text{Humidity} & 0^{\circ} \text{ C - } 40^{\circ} \text{ C, } \leqslant 90\% \text{RH} \\ \hline \\ \text{Power } \\ \text{Supply} & \text{Frequency} & 47.5\text{Hz} - 63\text{Hz} \\ \hline \\ \text{Power Consumption} \\ \hline \\ \text{Consumption} & \leqslant 60 \text{ VA} \\ \hline \\ \text{Dimensions} \\ \text{(W×H×D)} & 400\text{mm} \times 132\text{mm} \times 350\text{mm} \\ \hline \end{array} $	DCR		1m $\Omega$ – 99.9999M $\Omega$		
PASS / FAIL LED display					
Interrace         USB-TMC/HANDLER/GPIB(option)/SCANNER(option)           General Specifications           Temperature & Humidity         0° C - 40° C, ≤90%RH           Power Supply         Voltage         99V - 242V           Frequency         47.5Hz - 63Hz           Power Consumption         ≤60 VA           Dimensions (W×H×D)         400mm×132mm×350mm					
General Specifications           Temperature & Humidity         0° C - 40° C, ≤90%RH           Power Supply         Voltage         99V - 242V           Frequency         47.5Hz - 63Hz           Power Consumption         ≤60 VA           Dimensions (W×H×D)         400mm×132mm×350mm	Interface				
Humidity         0 C - 40 C, \$90%RH           Power Supply         Voltage         99V - 242V           Frequency         47.5Hz - 63Hz           Power Consumption         ≤60 VA           Dimensions (W×H×D)         400mm×132mm×350mm					
Supply         Frequency         47.5Hz − 63Hz           Power Consumption         ≤60 VA           Dimensions (W×H×D)         400mm×132mm×350mm		Temperature & 0° C - 40° C ≤90%RH		;, ≤90%RH	
Supply         Frequency         47.5Hz − 63Hz           Power Consumption         ≤60 VA           Dimensions (W×H×D)         400mm×132mm×350mm	Power		99V – 242V		
Consumption ≤60 VA  Dimensions (W×H×D) 400mm×132mm×350mm		Frequency	47.5Hz – 63Hz		
(W×H×D) 400mm×132mm×350mm	Power		≤60 VA		
Weight Approx. 5.0kg			400mm×132mm×350mm		
	Weight		Approx. 5.0kg		

### **Order Information**

U2826 High-frequency LCR Meter U2826A High-frequency LCR Meter

# Instrument Accesories

U26005 4 terminal test fixture
U26011 4 terminal Kelvin test clip leads

U26010 Gilded shorting plate

## **Options**

U26006 Axial component test fixture
U26008 SMD test fixture
U26009 SMD Kelvin test tweezers
U10301 GPIB interface

U10201 PC communication control software

