

STB6638 Series Precision Capacitance Meter

Features

- 4.3 inch TFT LCD display
- Selectable Chinese and English operation interface
- Max. test frequency: 1MHz
- Highest test speed: 2.3ms/time
- Basic test accuracy : $\pm 0.07\%$
- Loss factor: ± 0.0005
- V, I test signal level monitor function
- Low impedance measurement, signal level compensation function
- Built-in 11-bin comparator
- Internal file storage and external U disk file storage
- Test data can be directly saved in U disk
- Screen shot can be saved in U disk
- Compatible with SCPI commands
- RS232C, USB CDC, LAN, HANDLER, GPIB interfaces
- Manipulator interface and scanner interface
- Contact inspection function
- Synchronizing signal source
- Offset function in 1MHz test frequency ($\pm 1, \pm 2\%$)



| | | | | |
|----------|----------|------------|----------|----------|
| RS232 | USB HOST | USB DEVICE | HANDLER | LAN |
| standard | standard | standard | standard | standard |

STB6638/A

Rack mount (mm 280(Wx 88(Hx 370(D)
Dimension (mm 369(Wx 108(Hx 408(D)
Net weight: 5 kg

Applications

- High precision and speed testing of electrolytic capacitors (original),
- DC-Link capacitors (original),
- ceramic capacitors and film capacitors (original)
- Semiconductor, LED driver chip,
- material distributed capacitance test
- High-speed automated production line integration testing
- Other kinds of capacitors

Specifications

| Model | STB6638 | STB6638A | STB6638B | STB6638C |
|--------------------------------|--|---|--|------------------------------|
| Test parameters | Cp-D, Cp-Q, Cp-Rp, Cp-G, Cs-D, Cs-Q, Cs-Rs | Cp-D, Cp-Q, Cp-Rp, Cp-G, Cs-D, Cs-Q, Cs-Rs, Cs-Rs-Ls | Cp-D, Cp-Q, Cp-Rp, Cp-G, Cs-D, Cs-Q, Cs-Rs | |
| Test signal | | | | |
| Frequency | Permitted frequency | 100Hz, 120Hz, 1kHz, 10kHz, 100kHz, 1MHz, 1MHz $\pm 1\%$, 1MHz $\pm 2\%$ | 100Hz, 120Hz, 1kHz, 10kHz, 40kHz, 100kHz | 100Hz, 120Hz, 1kHz, 10kHz |
| | Accuracy | $\pm 0.02\%$ | | |
| Level | Range | 0.1V-1V | | |
| | Resolution | 0.01V | | |
| | Accuracy | $\pm 5\%$ | | |
| Output mode | | Continuous or synchronous | | |
| Signal source delay | Range | 0-1s | | |
| | Resolution | 0.1ms | | |
| Signal level compensation | 100/120Hz | 220 μ F, 470 μ F, 1mF range | | |
| | 1kHz | 22 μ F, 47 μ F, 100 μ F range | | |
| Output impedance | 100 Hz 120Hz | SLC OFF ($\geq 220\mu$ F range) | 1.5 Ω | |
| | | SLC ON ($\geq 220\mu$ F range) | 0.3 Ω | |
| | | 2.2 μ F - 100 μ F range | 0.3 Ω | |
| | 10 nF - 1 μ F range | 10 Ω | | |
| | 1kHz | SLC OFF ($\geq 22\mu$ F range) | 1.5 Ω | |
| SLC ON ($\geq 22\mu$ F range) | | Ω | | |
| | 220 nF - 10 μ F range | 0.3 Ω | | |
| | 100 pF - 100 nF range | Ω | | |
| 10kHz/100kHz | | 10 Ω | | |
| 1MHz | | 10 Ω | | |

| | | | |
|---|-------------|---|---|
| Test speed | | 5-bin test speed: 1, 2, 4, 6, 8 | |
| Max. Test speed | 100/120Hz | 11ms | |
| | 1kHz | 3ms | |
| | 10k/100kHz | 2.3ms | |
| | 1MHz | 2.3ms | ----- |
| Test range mode | | Auto, Hold | |
| Test signal frequency range | 100Hz/120Hz | 10 nF, 22 nF, 47 nF, 100 nF, 220 nF, 470 nF, 1 μ F, 2.2 μ F, 4.7 μ F, 10 μ F, 22 μ F, 47 μ F, 100 μ F, 220 μ F, 470 μ F, 1 mF | |
| | 1k Hz | 100 pF, 220 pF, 470 pF, 1 nF, 2.2 nF, 4.7 nF, 10 nF, 22 nF, 47 nF, 100 nF, 220 nF, 470 nF, 1 μ F, 2.2 μ F, 4.7 μ F, 10 μ F, 22 μ F, 47 μ F, 100 μ F | |
| | 10k Hz | 100 pF, 220 pF, 470 pF, 1 nF, 2.2 nF, 4.7 nF, 10 nF, 22 nF, 47 nF, 100 nF, 220 nF, 470 nF, 1 μ F, 2.2 μ F, 4.7 μ F, 10 μ F | |
| | 100k Hz | 10 pF, 22 pF, 47 pF, 100 pF, 220 pF, 470 pF, 1 nF, 2.2 nF, 4.7 nF, 10 nF, 22 nF, 47 nF, 100 nF | |
| | 1MHz | 1 pF, 2.2 pF, 4.7 pF, 10 pF, 22 pF, 47 pF, 100 pF, 220 pF, 470 pF, 1 nF | ----- |
| Average times | | 1 - 256 | |
| Trigger mode | | Internal, Manual, External, Bus | Internal, Manual, External, Bus (except GPIB) |
| Trigger delay time | Range | 0 - 1s | |
| | Resolution | 0.1ms | |
| Measurement display range | | | |
| Parameters | Cs , Cp | \pm 1.000000 aF to 999.9999 EF | |
| | D | \pm 0.000001 to 9.999999 | |
| | Q | \pm 0.01 to 99999.99 | |
| | Rs, Rp | \pm 1.000000 a Ω to 999.9999 E Ω | |
| | G | \pm 1.000000 aS to 999.9999 ES | |
| | Δ % | \pm 0.0001 % to 999.9999 % | |
| Basic measurement accuracy | | C:0.07%, D:0.0005 | |
| Display mode | | Floating / fixed decimal point display, Δ ABS, Δ % | |
| List sweep | | 10 list sweep, sweep item: frequency , voltage | |
| Comparator function | | 11 bins: BIN1-BIN9, OUT_OF_BIN, AUX_BIN | |
| Interface | | RS232C,LAN,USB CDC,GPIB, HANDLER,Scanner | RS232C, LAN, USB CDC, HANDLER |
| Internal storage | | 40 setting files | |
| External USB storage | | GIF image 40 setting files test data and screen shot can be saved in the USB storage directly | |
| General Specifications | | | |
| Temperature, humidity, height (operating environment) | | 0 $^{\circ}$ C - 45 $^{\circ}$ C, 15% - 85% RH (\leq 40 $^{\circ}$ C, non-condensing), 0 - 2000m | |
| Power supply | voltage | 90VAC - 264VAC | |
| | frequency | 47Hz - 63Hz | |
| | power | Max.150VA | |
| Temperature, humidity, height (Storage environment) | | -20 $^{\circ}$ C - 70 $^{\circ}$ C, 0 - 90% RH (\leq 65 $^{\circ}$ C, non-condensing), 0 - 4572m | |

Standard Accessories

Three core power cord

SBF0010 Gold-plated short circuit board

SBF001BS 4 terminal pair Kelvin test clip leads

SBF0005C Four-terminal test fixture