LISUN GROUP

Bulk Current Injection Test System
(LSBCI-40)

Brochure

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Leader in Lighting & Electrical Test Instruments

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1. System Configuration

Quotation includes the following items:

A. **Bulk Current Injection Test System**
- Test current: ≥300mA
- Output impedance: 50Ω
- Voltage standing wave ratio: ≤1.2

B. **Signal Source**
Frequency: 9K~1GHz (Maximum can scalable up to 3GHz)

C. **Power Amplifier**
Maximum output power: 125W (Linear power)

D. **Power Meter**
- Input frequency: 9KHz~3GHz
- Input power: -40dBm~+30dBm

E. **DC3400A Directional Coupler:** Coupling 40dB

F. **F-120-6A Current Injection Probe:** Maximum input power 1000W

G. **F-55 Current Monitoring Probe:** Maximum input power 1000W

H. **FCC-BCICF-1 Calibration Fixture for Current Injection Probe**: Fixing fixture for flow injection probe

I. **Schwarzbeck Artificial Power Network:** Simulate actual line impedance

J. **Software:** Chinese and English software which support Win7, Win8 and Win10

2. Working Principle

LSBCI-40 Bulk Current Injection Test System（BCI）fully meet standard ISO11452-4、GB/T32960.2-2016,etc. Support open-loop test method and closed-loop test method (Add options according to customer requirement), 100KHz ultra-low starting frequency which is enough to meet the test requirements of global auto companies. Built-in 3-channel Power Meter which can use directional coupler to monitor forward and reverse power in real time, equipped with Chinese and English interface test software.

3. Specifications

A. Test System

• Standard: ISO11452-4、GB/T32960.2-2016
• Frequency range of the whole system: 100kHz~400MHz；
• Frequency range of built-in signal source: 9kHz~1GHz；
• Built-in power amplifier frequency range: 100kHz~400MHz，125W optional，both are linear power indicators
• Built-in Power Meter: 9kHz~3GHz；
• Test Current: ≥300mA
• Output Impedance: 50Ω
• Voltage Standing Wave Ratio: ≤1.2
• Fully automatic calibration, full-automatic testing and output power monitoring during testing.
• Externally expandable test, support open loop injection method and closed loop test method
• Host computer control, Chinese and English version professional testing software, complete function and with good scalability;

B. Signal Source (Built-in)

• Frequency
  Frequency range: 9k~1GHz (Maximum can scalable up to 3GHz)
  Resolution: 1kHz
• Output level
  Level range: -60dBm~+10dBm
  Resolution: 0.1dBm
  Setting time: 10ms
• Unmodulated signal: Continuous wave
• Modulation mode: Amplitude modulation
  Modulation frequency: 1Hz~10kHz
  Modulation depth: 1~99%
  Frequency resolution: 1Hz
• Pulse modulation
  Modulation frequency: 1Hz~1kHz
  Duty cycle: 1~100%
  Frequency resolution: 1Hz
• Connector: N socket 50Ω

C. Power amplifier (Built-in)

• Output frequency: 100kHz~400MHz
• Maximum output power: 125W

• Input resistance: 50Ω
• Output resistance: 50Ω
• Gain flatness: Maximum +/-3dB
• Harmonic:＜15dBc
• Second harmonic distortion: <-10dBc
• Test Software（RF IMMUNITY TEST）

D. Power Meter (Built-in)

• Input frequency range: 9kHz~3GHz
• Linear measuring range: -40dBm~+30dBm
• Noise floor: Greater than 6dB below the measurement range
• Input return loss: >20dB (below 500MHz); >17dB (500 MHz to 3GHz)
• Connector: BNC socket 50Ω
• Input power: -40dBm~+30dBm

E. Directional Coupler

• Coupling: 40dB
• Maximum input power: 250W
• Response frequency: 10kHz – 400MHz

F. Current Injection Probe F-120-6A（FCC）

• Response frequency: 10kHz – 400MHz
• Maximum input power: 1000W

H. Calibration Fixture for Current Injection Probe (Matched with F-120-6A, owned by LISUN)

• Fixing fixture for Current Injection Probe
• It needs to be fixed in the self-calibration state and provide a short circuit state

I. Artificial power supply network for automotive electronics testing NNBM 8124

Asymmetric single path AMN (Artificial power network) NNBM 8124 mainly used to measure the interference voltage of vehicles, airplanes and ships in the frequency range of 0.1-150 MHz from high frequency to UHF band. NNBM 8124 can also be used for Bulk Current Injection (BCI) testing or transient testing according to ISO 7637-2. According to the CISPR 16/25 and MIL-STD-461F (5μH + 1 ohm) standards, the impedance characteristic is 50 ohms, the continuous current rating is 70 A, and may exceed 100 A in a short time. The test object is connected to the front panel wing terminal. The main power terminal is on the back of the device.

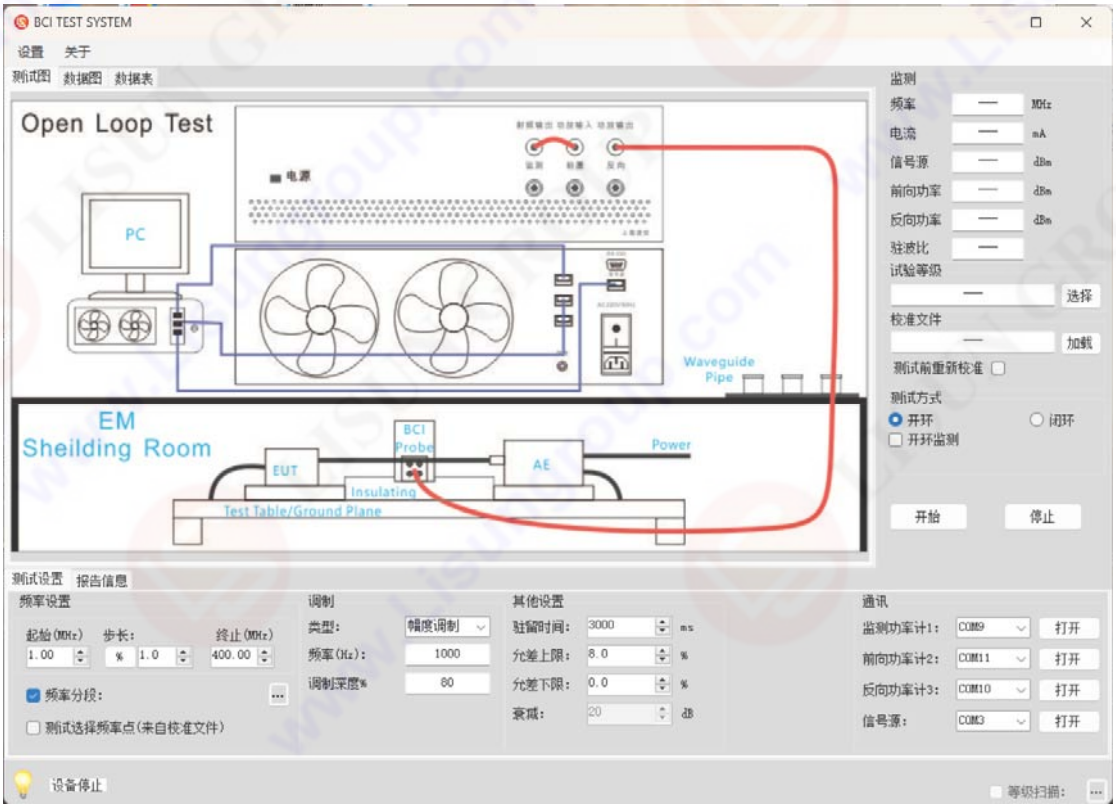
Specifications:

Frequency range: 0.1 – 150 MHz
Maximum continuous current: 70 A
Maximum time limit current: 100 A
Maximum DC voltage: 500V
Maximum AC voltage (50/60Hz): 250V
Maximum AC voltage (400Hz): 130V
Impedance: (5μH + 1 Ohm) || 50 Ohm (+/- 10 %)
DC resistance power supply-test object : < 5 mOhm
Impedance: (50Hz): 4.2 mOhm
Impedance: (400Hz): 13 mOhm
Connector under test: BNC (N-type optional), to wing terminal
Dimension (W x H x D): 160 x 210 x 165 mm
Weight: 1.9kg

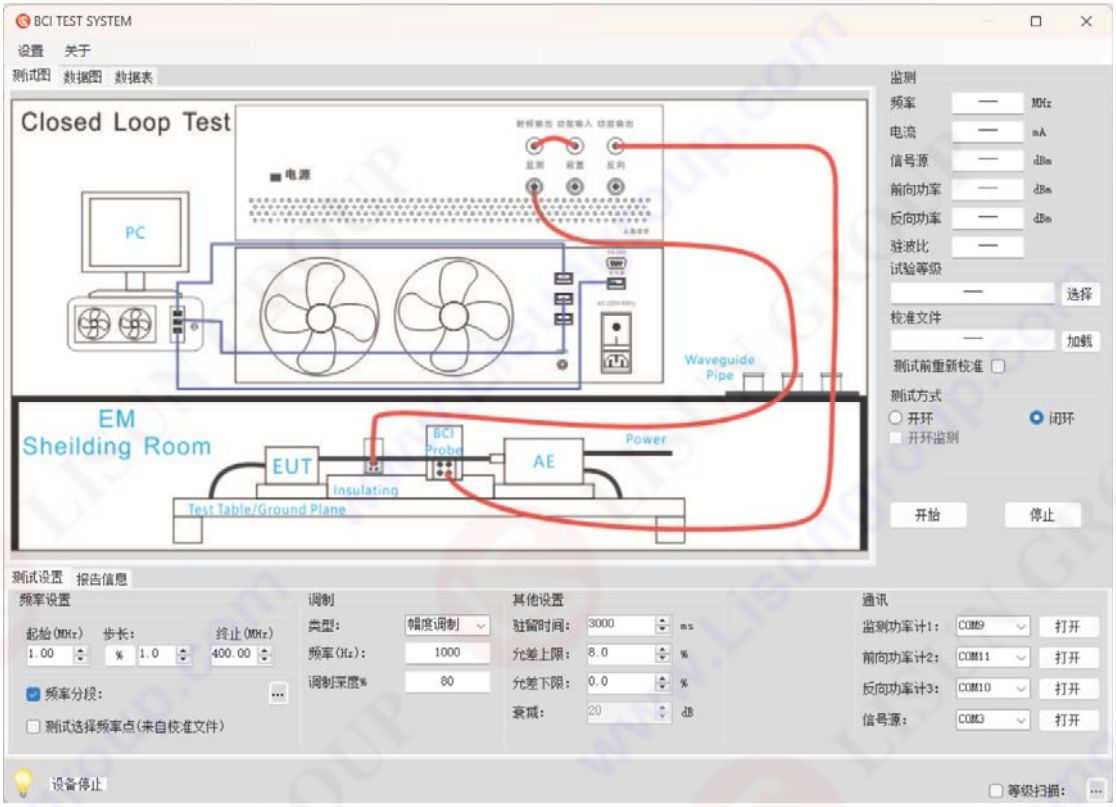
J. Software

BCI Test Control software can adjust parameters according to demand, automatic calibration, automatic test, Chinese and English operation interface.

Open loop:



Closed loop:



Data: