



## TC-5951A/5952B Pneumatic Shield Box

### Application

TC-5951A/5952B Pneumatic Shield Box provides an efficient RF isolated test environment for manufacturing of mobile phones and PCB assemblies.



TC-5951A



TC-5952B

### Features

- Reliable High RF shielding up to 2.5GHz owing to simple up-down lid motion
- Pneumatic control of lid open-close and optional automatic test fixture motions
- EMI filters on all data ports and power line
- Manual or remote operation (RS-232C)
- Modular I/O design for possible customization of data and RF connection
- Safety shield protective cover
- Fixture control air outputs for custom test fixture
- Red and Green LED's for Pass/Fail indication
- Dual pressure control and Lid Down Sensor for safety
- CE compliant : EN 292-1:1991, EN 292-2:1991/A1:1995, EN 983:1996, EN 1050:1996, EN 60204-1:1997

### Specification

- **Shielding Effectiveness:** > 80 dB, from DC to 2.5 GHz, Including Connectors
- **Remote Control:** RS-232C, 3 wire, DB9-P
- **Input Airline Pressure:** 5 bar to 10 bar
- **Main Airline Connector:** 0.24 in OD hose, one-touch push-on fitting
- **Fixture Control Air Connector:** 4mm OD, one-touch push-on fitting
- **Working Space:** 11.02(W) x 5.91(D) x 3.74(H) in
- **Dimension:** 13.46(W) x 9.41(D) x 10.31(H) in, lid closed. 16.14(H) in, lid open
- **Line voltage:** 100 to 240 VAC, 50/60 Hz, 15 watt max.
- **Data Line Capacity:** 100 VDC, 3 Amps maximum
- **Weight without optional test fixture:** 26.45 lbs. or 12 kg
- **Accessories Supplied:** N to N cable, DB9 RS-232C cable, DB9 and DB25 data cable, Power cable, Safety Shield, Operating manual



### Lid Characteristic

- Long Life Up-Down design, typically 1,000,000 open/close cycle
- Lid speed Control Valve
- Dual Pressure: Lid closes without air pressure
- Lid Down Sensor: Lid opens if the lid doesn't fully close within 2 sec.
- Initial Lid Position: Lid opens when the air is connected regardless of AC power
- Internal Electronic Cycle Counter (downloadable to PC thru RS-232C)

### Electrical I/O

#### User Data I/O Connectors

- Port #1: DB9-P outside, DB9-S inside, 1000pF Pi filter(100pF available)
- Port #2: DB25-P outside, DB25-S inside 1000pF Pi filter(100pF available)

#### RF connectors

- RF #1, #2 : N-type outside, SMA inside

#### Remote Control Connector

- RS-232C : DB9-P

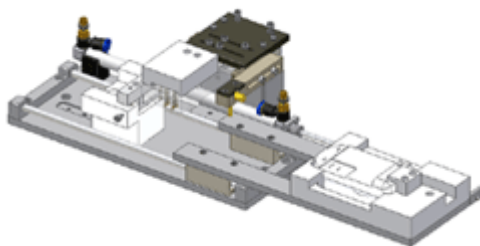
#### AC Line Input

- IEC Type, Detachable

### Fixture Customization Option

TC-5951A/5952B system with a custom fixture allows automation of most of the test processes. The fixture holds the device, brings it inside the shield box, makes test signal connections and returns the device to the starting position when the test is completed. Once the device is manually loaded on the DUT cradle the rest of the test procedures can be automated. The custom fixture option, TC-59421A/B or TC-59422A may be ordered through Concentric Technology Solutions by supplying the necessary DUT information and samples to assist in the design and verification of the custom test fixture. Typically, every device under test(DUT) has unique shape and electrical connections requiring mechanical and electrical customizations from its basic platform design.

A sample design is shown below.



**TC-59421A Typical Fixture**

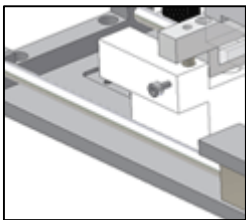


**Fixtures fitted**

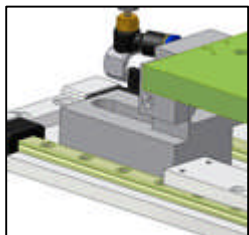


### Ordering Information

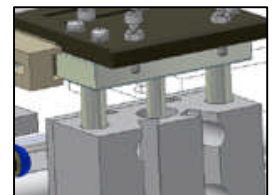
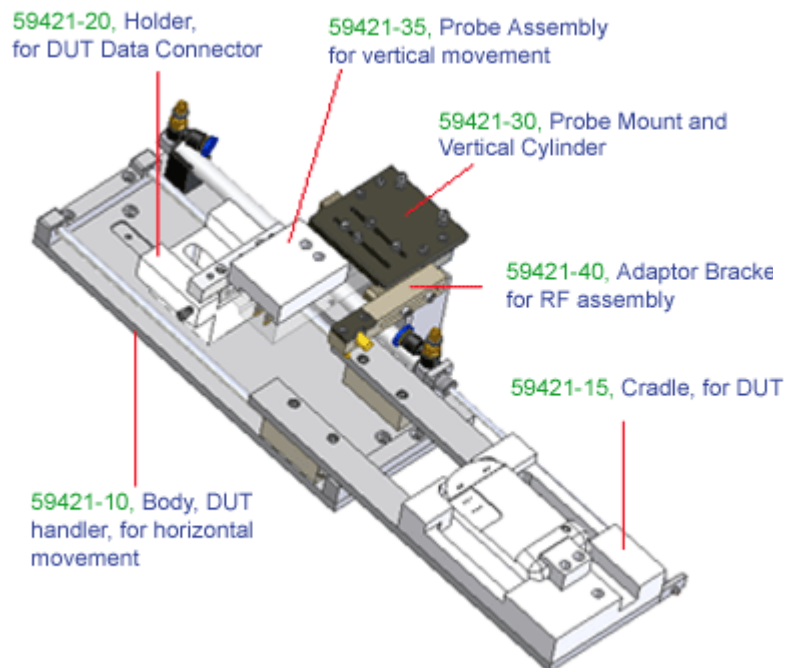
- TC-5951A, Dual open/close switch, Wider side front
- TC-5952B, Single open/close switch, Narrower side front. Clear plastic safety shield
- 5951-14, Handler Close Sensor Option, for 5951A only
- 5952-10, Wire Remote Open/Close Switch
- 5952-20, Switchable RF connection, RF Connector or Antenna Coupler
- 5952-80, Spare gasket Assembly - set of 2 pieces
- TC-59421A, Fixture for 5952B, fitted with ball bearing shaft
- TC-59421B, Fixture for 5952B, fitted with LM (Linear Motion) Guide
- TC-59422A, Fixture for 5951A



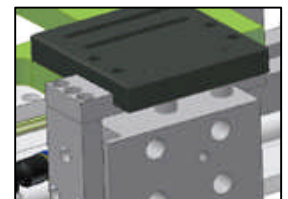
Cylinder for Cradle  
(TC-59421A)



LM Guide for Cradle  
(TC-59421B)



Cylinder for Probe Mount  
(TC-59421A)



LM Guide for Probe Mount  
(TC-59421B)

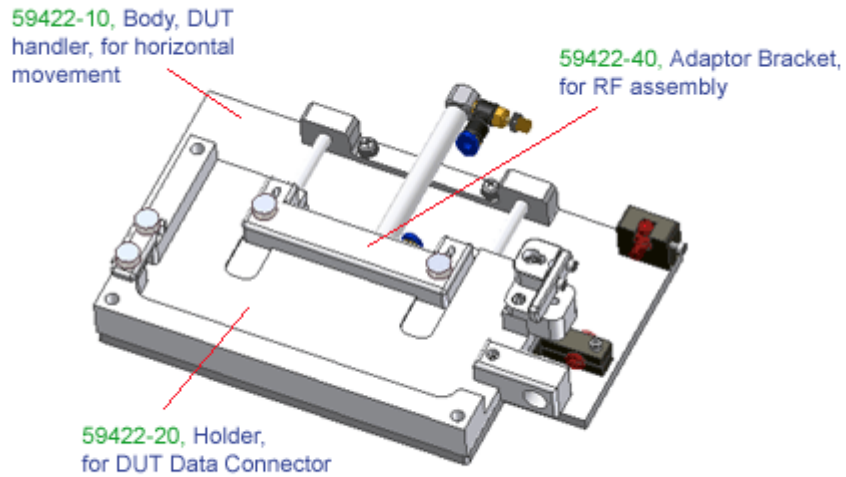


# Concentric Technology Solutions Inc

Testing Solutions for the Wireless Industry

TC-5951A/5952B Pneumatic Shield Box Data Sheet

## View of TC-59421A/B fixture



## View of TC-59422A fixture

Design Patent 240189

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE