# In-building Distribution System Solution

**Transcom Instruments** 



# **Background**

After finishing the construction of distribution system, three indexes will be tested and evaluated for performance:

**Passive Inter-modulation** 

**Distribution System Standing-Wave Radio(SWR)** 

**Distribution System Up/Down Link Power Loss Balance** 

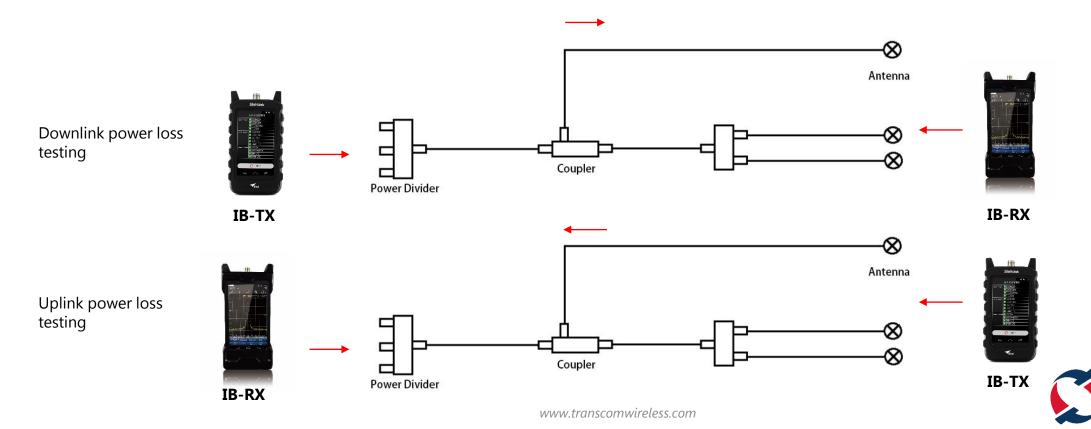
- Most common up/down stream power loss testing is done by power meter and signal source. With every frequency point changes, testing parameters need to be changed as well, which normally takes more than 15 minutes
- Transcom has provided a new set of testing instruments that reduce the traditional testing time into 5 seconds. With **IB-TX Sweep Signal Source** and **IB-RX Sweep Signal Receiver**, all frequency points testing results can be automatically output in one test, a signal person can perform the testing

# **System Composition**

TRANSCOM

INSTRUMENTS

- Connect **IB-TX Sweep Signal Source** and **IB-RX Sweep Signal Receiver** with coaxial cable for calibration. Calibrate IB-TX output power value to corresponding IB-RX testing power value difference
- Pre-set IB-TX frequency point and power for continues output, then set IB-RX to this frequency range for test result
- Testing frequency range parameters needs to input into both instruments
- Testing result is automatically generated by IB-RX



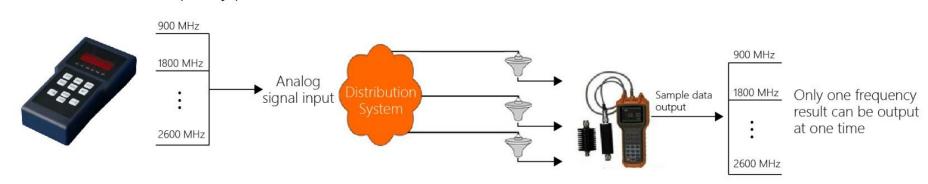
# **Competitive Advantage**

## **Rapid Testing Speed**

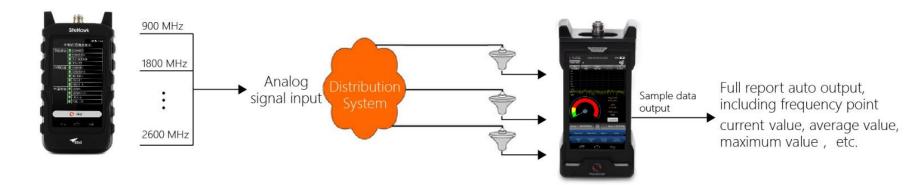
Transcom solution only takes
5sec to finish operator frequency
power measurement and data
collection within range of 7002700MHz and automatically
outputs the result report

Current testing method needs to reset signal source after change frequency point and receiver only one RSSI for every sample. It takes 10-15min to finish multiple operator frequency range test

Reset after switch frequency point



Multiple frequency point auto output





# **Competitive Advantage**

### **Wide Power Testing Range**

IB-RX power testing range: -120dBm to +20dBm, satisfy for all unknown location of indoor distribution system power range testing

### **Convenient and efficient operation**

IB-TX and IB-RX are both using Android system, full touch screen and user friendly interface

One-click option for power testing

### **Portable Design**

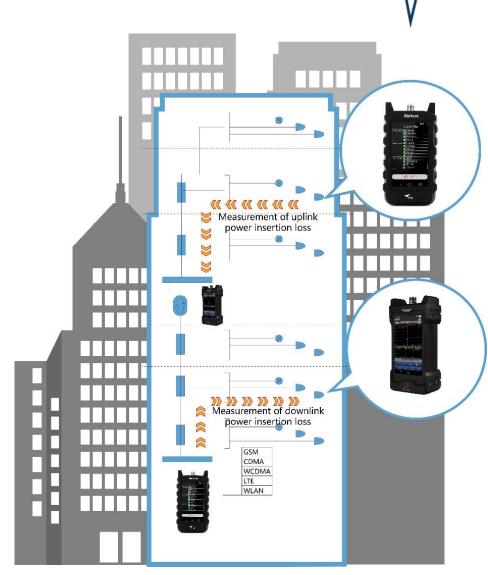
Full set of IB-TX and IB-RX are only 2.2KG, easy to carry for field work Battery last for more than 4 hours

### **Additional Features**

DTF VSWR/ return loss measurement, refection characteristic measurement, single-port cable loss measurement, feeder and antenna testing

### **Competitive Pricing**

Full solution set only costs \$7200

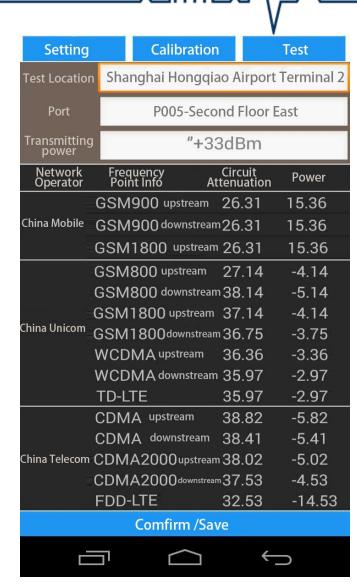




# Case 1: Shanghai Hongqiao Airport In-building Distribution System

- Evaluate in-building distribution system by using IB-TX
   Sweep Signal Source and IB-RX Sweep Signal Receiver in Shanghai Honggiao Airport terminal 2
- Full test only takes 5-10 seconds
- Three major network operators frequency range test results are shown on IB-RX







# **Specifications**

### **IB-TX Sweep Signal Source**

•Frequency Range: 85MHz-4000MHz

•Frequency Resolution: 1kHz

•Output Power: -5dBm (Optional Power Amplifier: 1W)

•Demension: 182x95x47(mm)

•Weight: 0.9kg

•Operating Time: 4 hours

## **IB-RX Sweep Signal Receiver**

•Frequency Range: 10MHz-4200MHz

•Frequency Resolution: 1Hz

•Power Testing Range: +30dBm to -100dBm

•Demension: 200x96x66(mm)

•Weight: 1.3kg

•Operating Time: 6 hours







# **Preparing Today for 5G of Tomorrow**





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