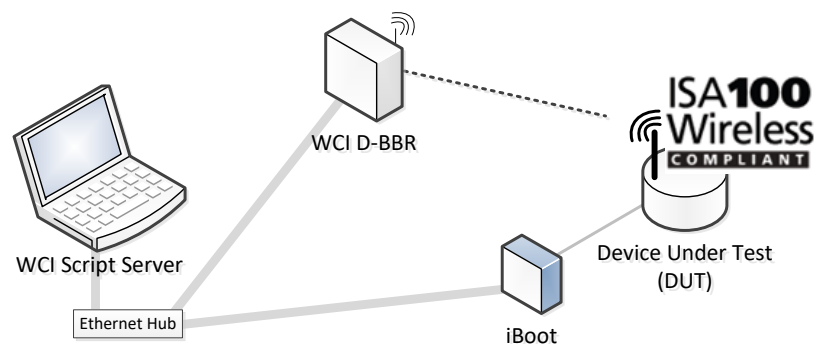


ISA100.11a Device Interoperability Test Kit Generation 2

Description

The ISA100 Wireless Device Interoperability Test Kit (DTK) Generation 2 is a complete package that allows the user to ensure a manufacturer's device conforms to WCI's official ISA100 Wireless registration testing. This product will verify the correct communication behavior of a wireless device as defined in the ISA100 Wireless® implementation specification version W2-01. It is an excellent tool for troubleshooting, debugging, and regression testing of ISA100.11a products.

The DTK ensures ISA100.11a device interoperability in native mode, in conjunction with ISA100.11a Stack Conformance Test Kit (STK).



Components

- Script Server (Linux machine)
- Test Scripts
- Diagnostic Backbone router (D-BBR)
- iBoot
- Ethernet Hub
- Documentation
- Technical Support for DTK setup and usage
- Part Warranty - one (1) year

Technical documentation is preloaded on the WCI Script Server, also available as a download on WCI's GitHub portal, as well as via Centero website.

For technical support please contact us at:

support@centerotech.com



About the ISA100 Wireless Compliance Institute

Comprised of industry leaders from major manufacturing and automation control system users and suppliers, the ISA100 Wireless Compliance Institute (WCI) was formed to decrease the time, costs, and risks of developing and deploying standards-based, industrial wireless devices and systems. WCI has established a collaborative industry-based program among users, suppliers, and other stakeholders that conducts independent testing and certification of wireless devices and systems; provides education, tools, and technical support to users and suppliers; accelerates adoption of the ISA100 standards; and assures interoperability. For more information about the ISA100 Wireless Compliance Institute, visit <http://www.isa100wci.org>.

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DTK Kit - Getting Started

To verify that the ISA100 DTK setup works fine and is ready for usage, the following steps need to be performed:

1. Connect the Script Server, iBoot and the D-BBR device via Ethernet cables to the provided network hub.
2. Power ON the Script Server, iBoot and the D-BBR.
3. Log in, into the Script Server (user: wci / password: wci) and navigate to the folder that contains the WCI DTK applications. Read the included documentation, especially the DTK User Manual document).

`\home\wci\WTK_Downloads\DTK\DTK_n.nn\Documents\`

4. Power ON the Device-Under-Test (connect power supply connected to iBoot).
5. Reset the DUT to Factory Default, according to the instructions provided by the vendor.
6. On the Script Server, open a Terminal window and try to ping the D-BBR devices to ensure that D-BBR, iBoot and Script Server can communicate via Ethernet

D-BBR : ping 192.168.254.8

iBoot: ping 192.18.254.253

7. Open the configuration file named "ss.ini" and ensure that the Reference Device's EUI-64 and IPv6 are correctly configured in the section "DUT1_*":

`gedit \home\wci\WTK_Downloads\DTK\DTK_n.nn\Device_testKit\Config\ss.ini`

Example: DUT1_EUI64Add = **0022FF00000235CC**

DUT1_IPV6Add = FE80000000000000**0022FF00000235CC**

DUT1_16BITAdd = 0B01

DUT1_16BITAdd_ExtDL = 0316

Save and close the ss.ini file.

8. Navigate to `\home\wci\WTK_Downloads\DTK\DTK_n.nn\Device_testKit\BLC\BLC\` and execute BLC test(s):
`./Execute_TP_Device.sh`

Note: In preparation for the actual stack testing, (C) and (D) below, the ss.ini file (see step 7 above) must be configured for the DUT, and the DUT shall pass BLC test (see step 8 above).

A. BLC test (takes the device through DUT Basic Life Cycle: Factory Default->Provisioned->Joined->Read Attributes->Provisioned->Factory Default)

`\home\wci\WTK_Downloads\DTK\DTK_n.nn\Device_testKit\BLC\BLC\`

B. JoiningScript test (re-provision DUT):

`\home\wci\WTK_Downloads\DTK\DTK_n.nn\Device_testKit\BLC\JoiningScript\`

C. All stack tests (device must be in Factory Default):

`\home\wci\WTK_Downloads\DTK\DTK_n.nn\Device_testKit\Execute_Stack.sh`

D. UDO DMAP test (device must be provisioned at start of this test):

Set **SECURITY_POLICY** setting to value **1** in the configuration file (example: SECURITY_POLICY=1):

`\home\wci\WTK_Downloads\DTK\DTK_n.nn\Device_testKit\Config\ss.ini`

Execute UDO DMAP Test:

`\home\wci\WTK_Downloads\DTK\DTK_n.nn\Device_testKit\UDO_DMAP\UDOTP1_Load\Execute_TP_UDO.sh`