Shenzhen skyworth RGB electronic co., LTD.

Model: NTUD – T3

Operation Instruction

Respect of customer, sincerely thank you for purchasing SKYWORTH equipped with wireless WIFI NTUD – T3 - type USB peripheral products.

This product can support USB2.0 protocol, based on the IEEE802.11 b/g/n standard design. With all the way to send and receive all the way (2T2R) dual channel work, maximum transmission rate of up to 300 Mbps.Ensure that users browse and download data flow, security and stability.

NTUD - T3 wireless WIFI USB peripheral product support Windows XP/Vista / 7 / Linux operating system.In SKYWORTH TV, have complete embedded in the product and the driver, without user to install, and at the same time support Linux and Android.

Used in TV production operation is as follows:

1. Turn on the TV, switch to the "home page" interface.

2. Select "Settings" feature. "OK" to enter

3. Select "network setup" function. "OK" to enter;

4. Choose the "wireless network", "OK" to enter;

5. According to the needs, select "auto search", "manual

connection", etc. Press the "OK" to enter

6. Choose their own after the AP name "OK" to enter, Enter the password.

Television system has the memory function, for the first time to use should be according to the above steps, later need not operation, boot automatically connected.If need to change the AP or change the mode of connection, need according to the above steps again.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- **Reorient or relocate the receiving antenna.**

- **Increase the separation between the equipment and receiver.**

- **Connect the equipment into an outlet on a circuit different from that to which the receiver is - connected.**

- **Consult the dealer or an experienced radio/television technician for help.**

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Regulation information

(1) List of applicable FCC rules:

FCC Part 15.247

(2) Summarize the specific operational use conditions:

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter. The host product manufacturer should state this information to the host instruction manual.

(3) Limited module procedures:

Not applicable.

(4) Trace antenna designs:

Not applicable.

(5) RF exposure considerations:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.
This compliance to FCC radiation exposure limits for an uncontrolled environment, and minimum of 20cm separation between antenna and body. The host product shall show the same or similar statement to the end users.

(6) Antennas

Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device

Antenna type	Antenna gain
PIFA	2412MHz to 2462MHz: Max gain:3.7

(7) Label and compliance information:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

The end product must carry a physical label or shall use e-labeling followed KDB784748D01 and KDB 784748 stating "Contains Transmitter Module FCC ID: 2ANM3NTUDT3".

The e-label instructions:

a. The information must be accessible in no more than three steps from a product's main or home menu.
b. Products must not require special accessories or supplemental plug-ins (e.g., the installation of a SIM/USIM card) to access the information.
c. The FCC ID, warning statements, or other information must be displayed electronically in a manner that is clearly legible without the aid of magnification.
d. Regulatory Information must be Secure.

(8) Information on test modes and additional testing requirements.

Information on test modes:

The host manufacturer can use the software "SecureCRT" for access to the test modes. Connected to the computer through the serial port of the host product and enter the command as following. if it does not work, then the host product manufacturer should coordinate with the module manufacturer for access to test mode software.

WiFi test mode configuration command:

```
iwpriv wlan0 set ATE=ATESTART&&                        //start transmit
iwpriv wlan0 set ATEDA=00:11:22:33:44:55&&
iwpriv wlan0 set ATESA=00:aa:bb:cc:dd:ee&&
iwpriv wlan0 set ATEBSSID=00:11:22:33:44:55&&
iwpriv wlan0 set ATECHANNEL=1&&            // Channel
iwpriv wlan0 set ATETXMODE=2&&             //0=11b,1=11g,2=11n，
iwpriv wlan0 set ATETXMCS=7&&               //rate
iwpriv wlan0 set ATETXBW=0&&                //bandwidth，0=20M,1=40
iwpriv wlan0 set ATETXGI=0&&
iwpriv wlan0 set ATETXLEN=1024&&           // Packet Length，maximum is 4095
iwpriv wlan0 set ATETXANT=0&&              //antenna，0=ant 1+2, 1=ant 1 only, 2=ant 2 only
iwpriv wlan0 set ATETXPOW0=28&&             // Antenna 1 transmit power
iwpriv wlan0 set ATETXPOW1=28&&    // Antenna 1 transmit power，delete when only one ant is alive
iwpriv wlan0 set ATETXFREQOFFSET=40&&
iwpriv wlan0 set ATETXCNT=10000000&&
iwpriv wlan0 set ATE=TXFRAME
```

The following provides guidance to host product when installing this module on how they may verify the end product:

a) If the modular transmitter has been fully tested by the module grantee on the required number of channels, modulation types, and modes, it should not be necessary for the host installer to re-test all the available transmitter modes or settings.   It is recommended that the host product manufacturer, installing the modular transmitter, perform some investigative measurements to confirm that the resulting composite system does not exceed the spurious emissions limits or band edge

limits (e.g., where a different antenna may be causing additional emissions)

b) b) The testing should check for emissions that may occur due to the intermixing of emissions with the other transmitters, digital circuitry, or due to physical properties of the host product (enclosure). This investigation is especially important when integrating multiple modular transmitters where the certification is based on testing each of them in a stand-alone configuration. It is important to note that host product manufacturers should not assume that because the modular transmitter is certified that they do not have any responsibility for final product compliance.

c) If the investigation indicates a compliance concern the host product manufacturer is obligated to mitigate the issue. Host products using a modular transmitter are subject to all the applicable individual technical rules as well as to the general conditions of operation in Sections 15.5, 15.15, and 15.29 to not cause interference. The operator of the host product will be obligated to stop operating the device until the interference has been corrected.

(9) Additional testing, Part 15 Subpart B disclaimer:

The modular transmitter is only FCC authorized for the specific rule parts (FCC Part 15.247) list on the grant, and that the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification.

The final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed when contains digital circuity.