## **Operational Description**

This device is an IEEE802.11n Wireless Router, which operates in the 2.4GHz frequency spectrum with throughput of up to 300Mbps which OFDM technique will be applied. If the signal to noise rate is too poor which could not support 300Mbps, the 11Mbps data rate with DSSS technique will be applied.

1. There are three antennas provided to this EUT, please refer to the following table:

Transmitter Circuit	Antenna Type	Antenna Connector	Gain(dBi)
Chain(0)	Dipole	REVERSE SMA	2
Chain(1)	Dipole	REVERSE SMA	2
Chain(2)	Dipole	REVERSE SMA	2

2. The EUT has four brand names and four model names, which are identical to each other in all aspects except for the following:

Brand	Model Name
NETRONIX	W443D
Longshine	LCS-WR5-2214N1
Encore	ENHWI-N
ViSTOR	WFN-44

From the above models, model: **W443D** was selected as representative model for the test and its data was recorded in this report.

3. The EUT was operated with the following power adapter:

Brand:	HONGHUI	
Model No.:	CGS-1201000	
Input power :	AC 100-240V, 50/60Hz, 1.0A	
Output power :	DC 12V	
	Cable:1.8m/unshielded/without core	

- 4. The EUT incorporates a MIMO function with 802.11b, 802.11g, draft 802.11n. Physically, the EUT provides two completed transmit and three completed receivers.
- 5. The EUT is 2 \* 3 spatial MIMO without beam forming function. The antenna configurations are two transmitter antennas and three receiver antennas, as there are 3 Dipole antennas. Spatial multiplexing modes for simultaneous transmission using 2 antennas, and for simultaneous receiver using 3 antennas. The 11bg legacy modes are limited to single transmitter only.

FCC ID: NOI-W443D		
6.	When the EUT operating in draft 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 15.	
7.	The EUT complies with draft 802.11n standards and backwards compatible with 802.11b, 802.11g products.	
8.	The EUT, operates in the 2.4GHz frequency range, lets you connect IEEE 802.11g or IEEE 802.11b and draft 802.11n technique devices to the network.	
9.	The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.	