



RF Exposure Evaluation Assessment

3G wireless-N Travel Router

Model Number:

Series 1096, 4506XY

(X=A,B,C,D,E,F OR NOTHING,Y=G,H,J,K,L,M OR NOTHING)

Brand: zoom

Issued for

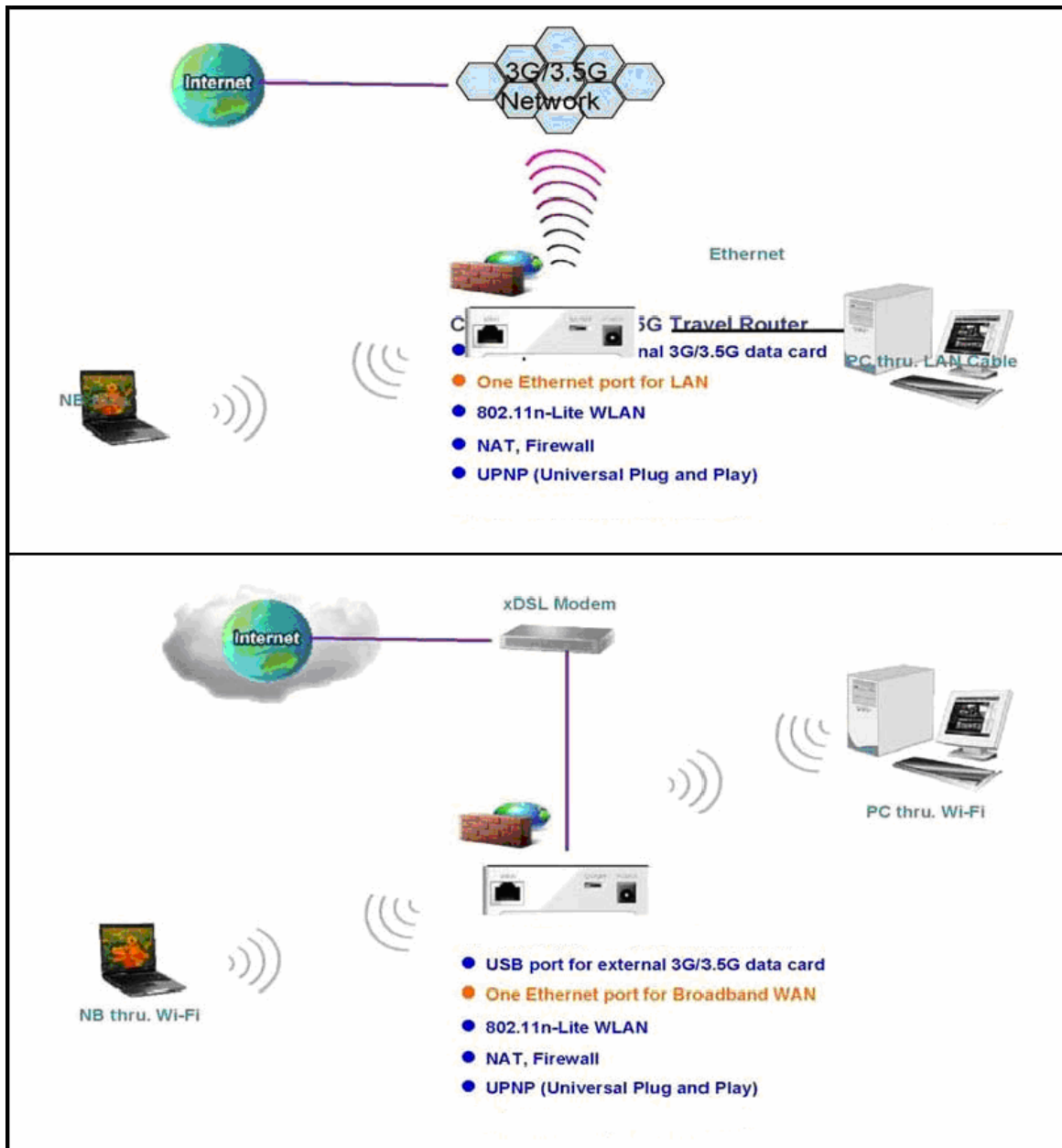
Zoom Telephonics, Inc.

207 South Street Boston, Ma 02111 USA

1. Product description: 3G wireless-N Travel Router

1.1. Functions description :

- Whiling connecting with any certified 3G dongle, any device with WLAN may then be able to access internet via this mobile router. Please see Figure 1; or
- This device (Router) can be connected to the Internet with a external XDSL Modem when a 3G dongle is **not** available. Please see the Figure 2.



For detail product information, please refer to attached user manual.



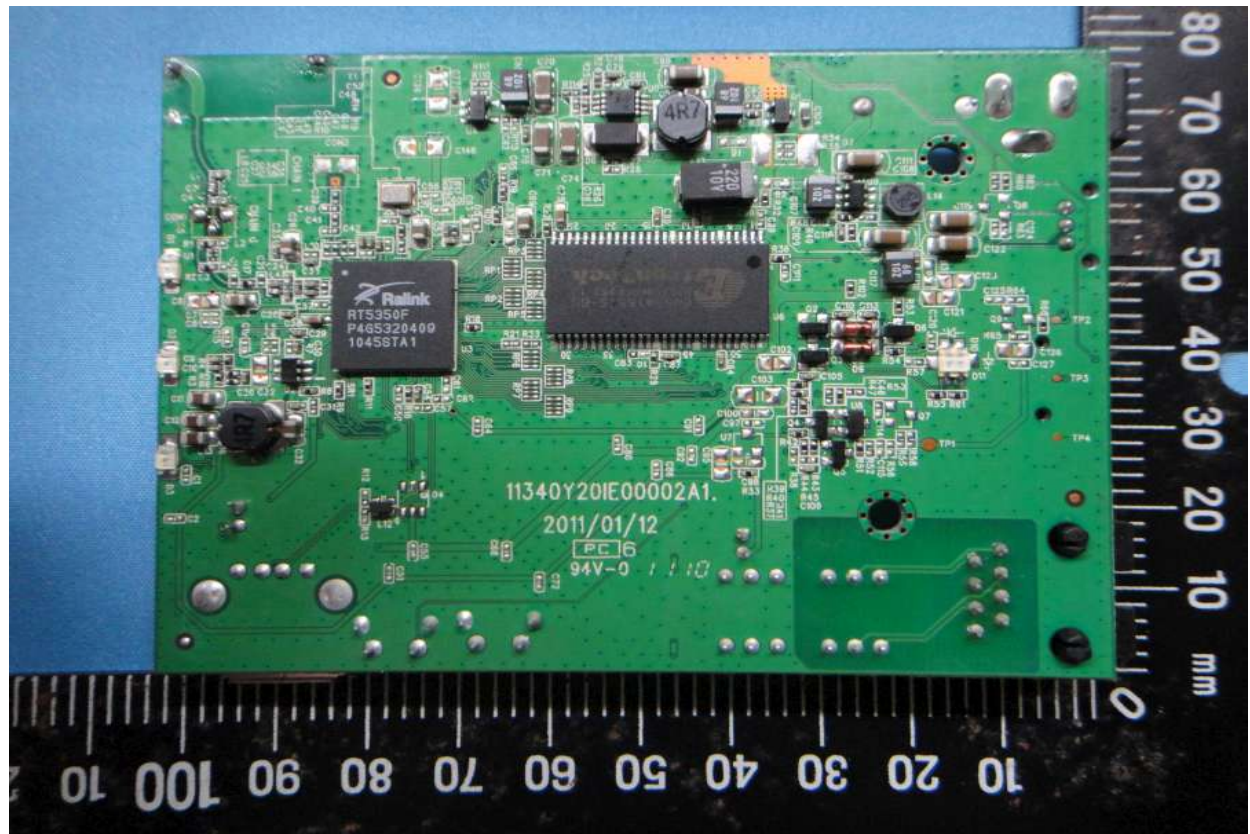
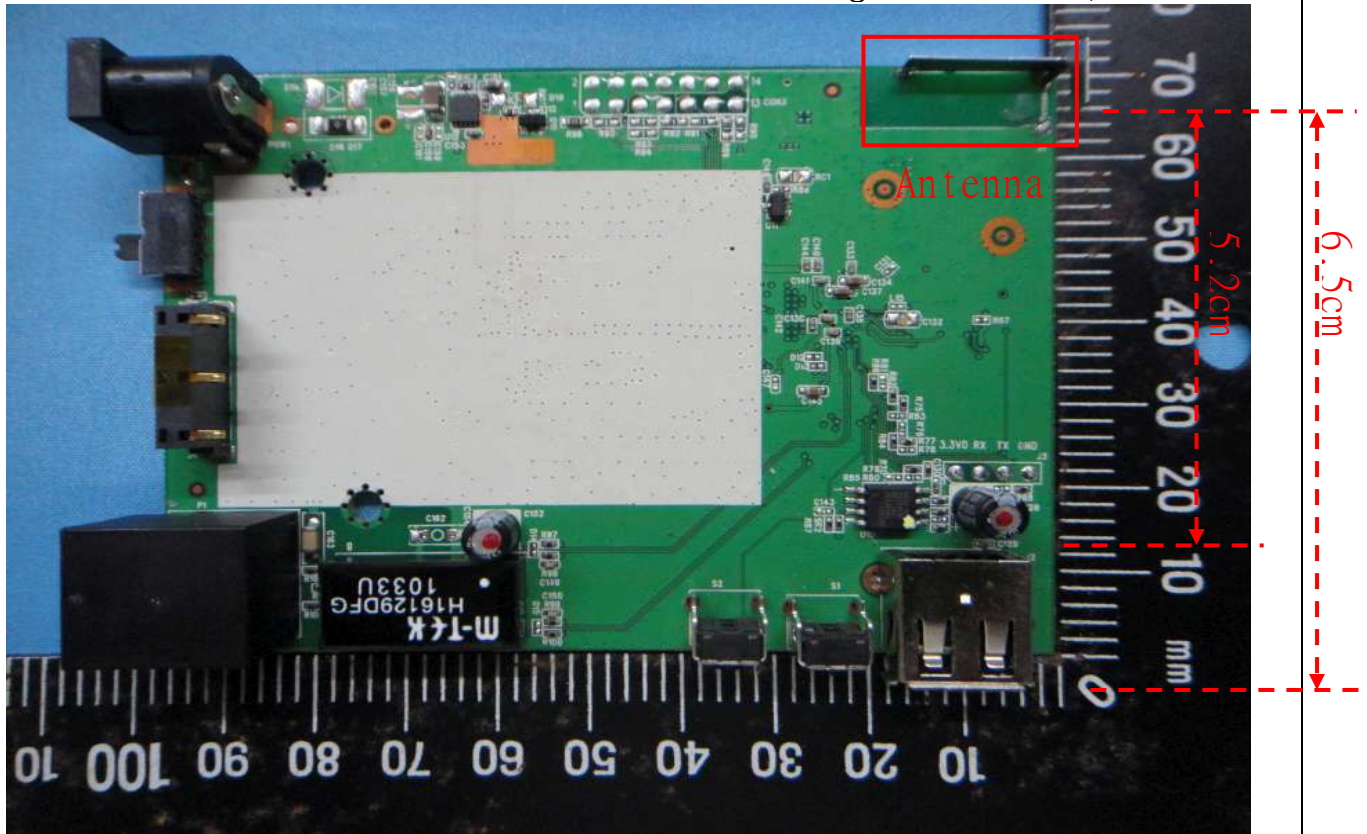
2. EUT photos and antenna locations

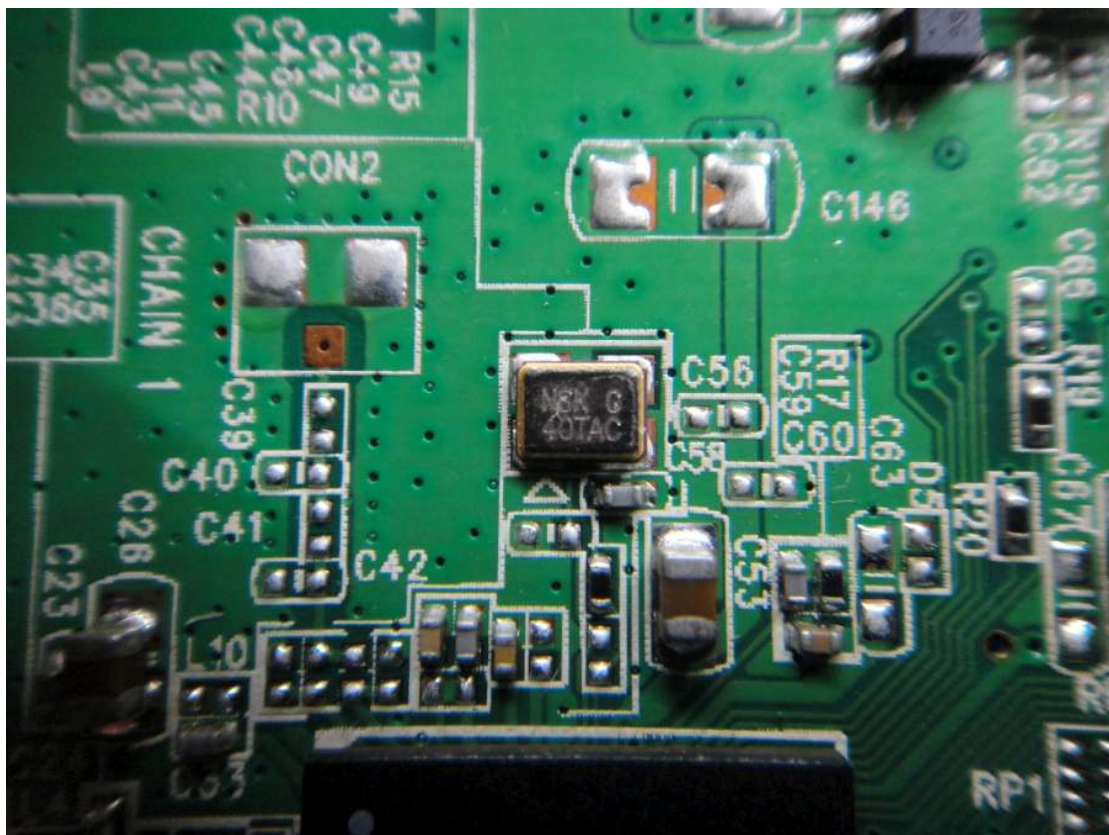






WLAN antenna location and WLAN antenna distance to the end of USB connector (which is the shortest distance where the certified 3G dongle connected.)







3. Conducted average output power

802.11b mode

Channel	Frequency (MHz)	Average Power Chain0 (dBm)
Low	2412	13.65
Middle	2437	13.68
High	2462	13.77

802.11g Normal Mode

Channel	Frequency (MHz)	Average Power Chain0 (dBm)
Low	2412	10.34
Middle	2437	10.45
High	2462	10.35

802.11n HT-20 Mode

Channel	Frequency (MHz)	Average Power Chain0 (dBm)
Low	2412	8.12
Middle	2437	8.27
High	2462	8.15

802.11n HT-40 Mode

Channel	Frequency (MHz)	Average Power Chain0 (dBm)
Low	2422	8.08
Middle	2437	8.24
High	2452	7.93



4. Summary of the RF evaluation result

4.1 Justification of Stand-alone SAR evaluation

The maximum average output power of 802.11bgn:

b mode: 13.77dBm (23.82mW)

g mode: 10.45dBm (11.09mW)

HT-20 : 8.27dBm (6.71mW)

HT-40 : 8.24dBm (6.67mW)

According to KDB 447498 D01 Mobile Portable RF Exposure v04, Stand-alone SAR evaluation for WLAN is not required because the output power is lower than the power threshold=60/f :

$$60/2.437=24.62\text{mW}$$

No stand-alone SAR evaluation required

4.2 Justification of the co-location simultaneous transmission SAR evaluation

- 3G dongle is not a part of the EUT
- any certified 3G dongle can be connected to the EUT
- based on current WLAN antenna distance to the USB connector as indicated in page 6, the min. distance is 5.2 cm;
- and assume the max. SAR value of 3G dongle is 1.6W/kg
- per KDB 648474 D01 Mobile Portable RF Exposure v04, item 3) b) ii) (1):
Min. WLAN Antenna- 3G antenna = 5.2cm > 5cm
- Per KDB 941225 procedure, the simultaneous SAR can be exempted.

No co-location simultaneous transmission SAR evaluation required.