

## FCC RF EXPOSURE SUMMARY SUPPLEMENT FOR PUMP-UP ANTENNA HOUSING

The 622ANHMW 802.11a/b/g/n WLAN Module is utilized within the iX104C5 Rugged Tablet PC with a transmit diversity antenna (MAIN/AUX) supporting MIMO operations. The MAIN transmit diversity antenna is located within the same housing as the co-located WWAN antenna. The co-located WWAN has two (2) alternate antenna types - "Pump-Up" (higher gain) and "Non Pump-Up" (lower gain). The two (2) alternate WWAN antennas have different housing and therefore the WLAN antenna is also located within the alternate housing of the "Pump-Up" and "Non Pump-Up" WWAN antenna. The WLAN antenna is the same part number as the WWAN antenna (SkyCross 25.90A14.001 for "Pump-Up" configuration and SkyCross 25.90A0P.001 for the "Non Pump-Up" configuration). Preliminary evaluations were performed for both WLAN antenna housing configurations and the "Non Pump-Up" WLAN housing configuration was determined to be the worst-case configuration. The SAR measurement data for the "Non Pump-Up" WLAN housing configuration is shown in the separate SAR test report exhibit (test report serial no. 092110Q2G-T1046-S15W). The MAIN (Chain A) transmit diversity antenna is located at the upper left hand side on the top edge of the tablet pc ("0-degrees landscape" LCD display orientation) above the display screen; the AUX (Chain B) transmit diversity antenna (SkyCross Part Number: 25.90A0Q.001) is located at the upper right hand side on the top edge of the tablet pc ("0-degrees landscape" LCD display orientation) above the display screen.

Below is a summary of the SAR evaluation for the WLAN MAIN transmit diversity antenna located within the iX104C5 Tablet PC between the "Pump-Up" antenna housing in comparison to the maximum SAR level evaluated for the "Non Pump-Up" WWAN antenna housing (test report serial no. 092110Q2G-T1046-S15W). The evaluation comparison results show that the SAR levels are significantly lower for the "Pump-Up" antenna housing configuration and therefore only the "Non Pump-Up" antenna housing configuration for the WLAN was fully evaluated for SAR as shown in the separate SAR test report (test report serial no. 092110Q2G-T1046-S15W). Note: the WLAN AUX transmit diversity antenna and location is identical for both configurations and therefore comparison evaluations for the AUX antenna are not reported.

| BODY (LAP-HELD) SAR MEASUREMENT COMPARISON SUMMARY |                  |                             |      |       |     |             |                                      |                                      |                                 |                                   |                       |                    |      |
|--|------------------|-----------------------------|------|-------|-----|-------------|--------------------------------------|--------------------------------------|---------------------------------|-----------------------------------|-----------------------|--------------------|------|
| ANTENNA HOUSING CONFIG. & PART NO.                 | Freq. Band (GHz) | Mode                        | Mod. | Freq. | Ch. | Data Rate   | Tablet PC Position to Planar Phantom | Tablet PC Distance to Planar Phantom | WLAN Transmit Diversity Antenna | Cond. Power Before Test           | SAR Drift During Test | Measured SAR Level |      |
|  |                  |                             |      | MHz   |     | Mbps        |                                      |                                      |                                 | dBm                               |                       | dB                 | W/kg |
| NON PUMP-UP 25.90A0P.001                           | 2.4              | 802.11n                     | OFDM | 2442  | 7   | HT0         | Bottom Side                          | Touch                                | MAIN                            | 16.8                              | -0.035                | 0.460              | 1g   |
| PUMP-UP 25.90A14.001                               | 2.4              | 802.11n                     | OFDM | 2442  | 7   | HT0         | Bottom Side                          | Touch                                | MAIN                            | 16.8                              | -0.029                | 0.147              | 1g   |
| NON PUMP-UP 25.90A0P.001                           | 5.3              | 802.11n                     | OFDM | 5300  | 60  | HT0         | Bottom Side                          | Touch                                | MAIN                            | 16.8                              | -0.150                | 0.606              | 1g   |
| PUMP-UP 25.90A14.001                               | 5.3              | 802.11n                     | OFDM | 5300  | 60  | HT0         | Bottom Side                          | Touch                                | MAIN                            | 16.8                              | -0.082                | 0.262              | 1g   |
| <b>SAR LIMIT(S)</b>                                |                  |                             |      |       |     | <b>BODY</b> |                                      | <b>SPATIAL PEAK</b>                  |                                 | <b>RF EXPOSURE CATEGORY</b>       |                       |                    |      |
| FCC 47 CFR 2.1093                                  |                  | Health Canada Safety Code 6 |      |       |     | 1.6 W/kg    |                                      | averaged over 1 gram                 |                                 | General Population / Uncontrolled |                       |                    |      |

**WLAN - 11n - HTO - 2442 MHz - Main - Bottom Side - XPL 04 - Pump Up/Area Scan (9x13x1):** Measurement grid:  
dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.179 mW/g

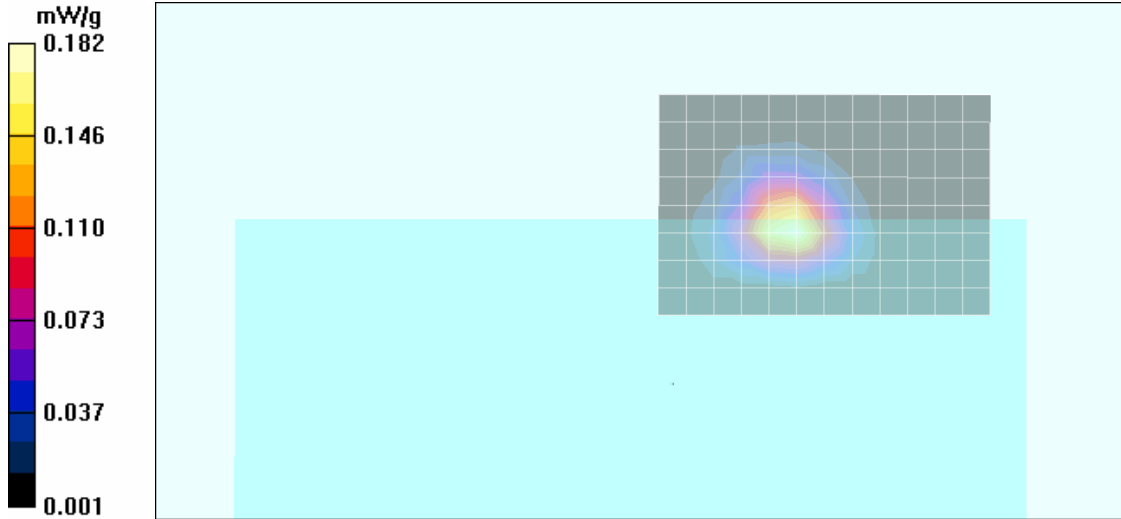
**WLAN - 11n - HTO - 2442 MHz - Main - Bottom Side - XPL 04 - Pump Up/Zoom Scan (8x8x8)/Cube 0:** Measurement grid:  
dx=4mm, dy=4mm, dz=3mm

Reference Value = 9.41 V/m; Power Drift = -0.029 dB

Peak SAR (extrapolated) = 0.261 W/kg

**SAR(1 g) = 0.147 mW/g; SAR(10 g) = 0.072 mW/g**

Maximum value of SAR (measured) = 0.182 mW/g



**WLAN - 11n - HTO - 2442 MHz - Main - Bottom Side - XPL 04 - Non Pump Up/Area Scan (9x13x1):** Measurement grid:  
dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.609 mW/g

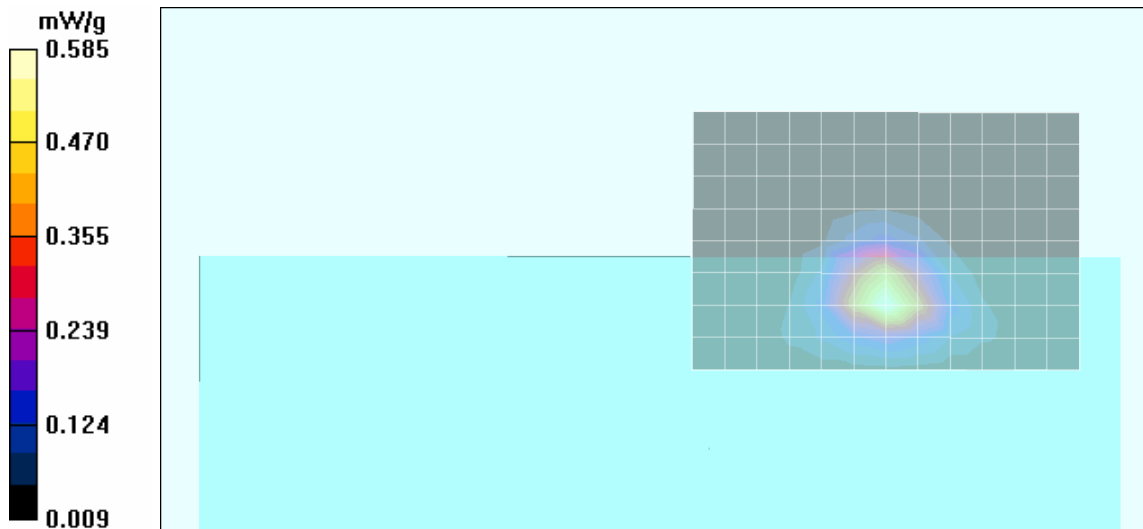
**WLAN - 11n - HTO - 2442 MHz - Main - Bottom Side - XPL 04 - Non Pump Up/Zoom Scan (8x8x8)/Cube 0:** Measurement grid:

Reference Value = 17.5 V/m; Power Drift = -0.035 dB

Peak SAR (extrapolated) = 0.955 W/kg

**SAR(1 g) = 0.460 mW/g; SAR(10 g) = 0.207 mW/g**

Maximum value of SAR (measured) = 0.585 mW/g



**WLAN - 11n -HT0 - 5300 MHz - Main - Bottom Side - XPL 04 - Pump-Up/Area Scan (9x13x1):** Measurement grid:  
dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.385 mW/g

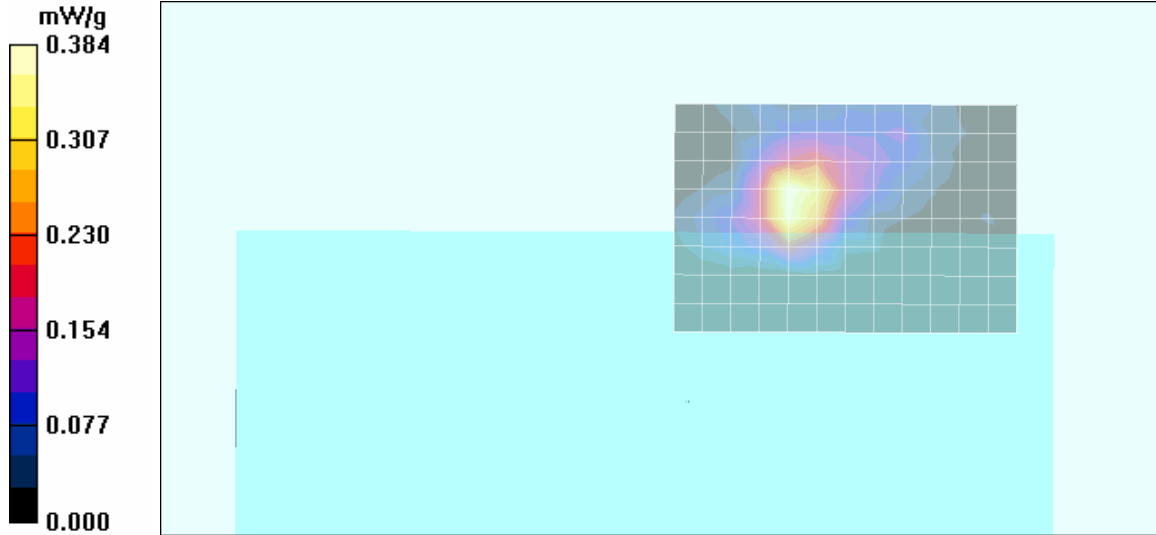
**WLAN - 11n -HT0 - 5300 MHz - Main - Bottom Side - XPL 04 - Pump-Up/Zoom Scan (8x8x8)/Cube 0:** Measurement grid:  
dx=4mm, dy=4mm, dz=3mm

Reference Value = 8.80 V/m; Power Drift = -0.082 dB

Peak SAR (extrapolated) = 0.699 W/kg

**SAR(1 g) = 0.262 mW/g; SAR(10 g) = 0.082 mW/g**

Maximum value of SAR (measured) = 0.384 mW/g



**WLAN - 11n -HT0 - 5300 MHz - Main - Bottom Side - XPL 04 - Pump-Up/Area Scan (9x13x1):** Measurement grid:  
Maximum value of SAR (measured) = 0.832 mW/g

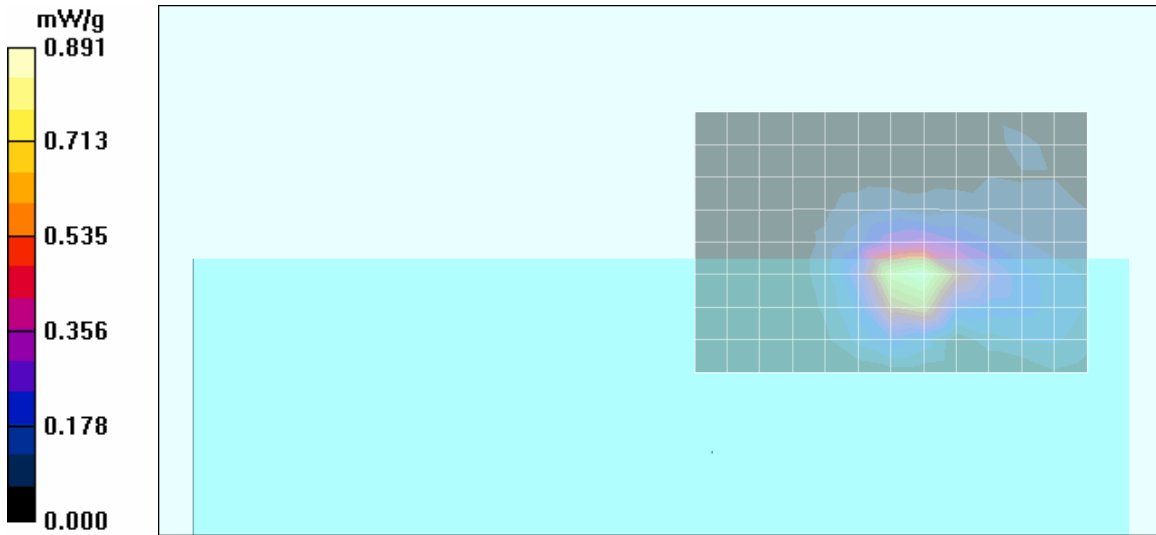
**WLAN - 11n -HT0 - 5300 MHz - Main - Bottom Side - XPL 04 - Pump-Up/Zoom Scan (8x8x8)/Cube 0:** Measurement grid:

Reference Value = 13.2 V/m; Power Drift = -0.150 dB

Peak SAR (extrapolated) = 1.54 W/kg

**SAR(1 g) = 0.606 mW/g; SAR(10 g) = 0.231 mW/g**

Maximum value of SAR (measured) = 0.891 mW/g



**WLAN MAIN Transmit  
Antenna Housing  
(WWAN Pump-Up)**

**Tablet PC Model: iX104C5 - "0 Degrees Landscape" LCD Display Orientation - "PUMP-UP" ANTENNA HOUSING**



|                         |  |                |              |            |                |             |
|-------------------------|--|----------------|--------------|------------|----------------|-------------|
| <b>Applicant:</b>       | Xplore Technologies Corp.  | <b>FCC ID:</b> | Q2GI6200-XPL | <b>IC:</b> | 4596A-I6200XPL |             |
| <b>DUT Type:</b>        | Model: 622ANHMW 802.11abgn WLAN Mini-PCI Express Card installed in iX104C5 Tablet PC (LMA)                           |                |              |            |                |             |
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**Tablet PC Model: iX104C5 - "90 Degrees Portrait" LCD Display Orientation**



**WLAN MAIN Transmit Antenna Housing (WWAN Pump-Up)**

**WWAN "PUMP-UP" ANTENNA HOUSING**

|                         |  |                |                     |            |                       |  |
|-------------------------|--|----------------|---------------------|------------|-----------------------|--|
| <b>Applicant:</b>       | <b>Xplore Technologies Corp.</b>   | <b>FCC ID:</b> | <b>Q2G16200-XPL</b> | <b>IC:</b> | <b>4596A-I6200XPL</b> |  |
| <b>DUT Type:</b>        | <b>Model: 622ANHMW 802.11abgn WLAN Mini-PCI Express Card installed in iX104C5 Tablet PC (LMA)</b>                    |                |                     |            |                       |  |
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**Top Edge of Tablet PC with WWAN “PUMP-UP” Antenna Housing**

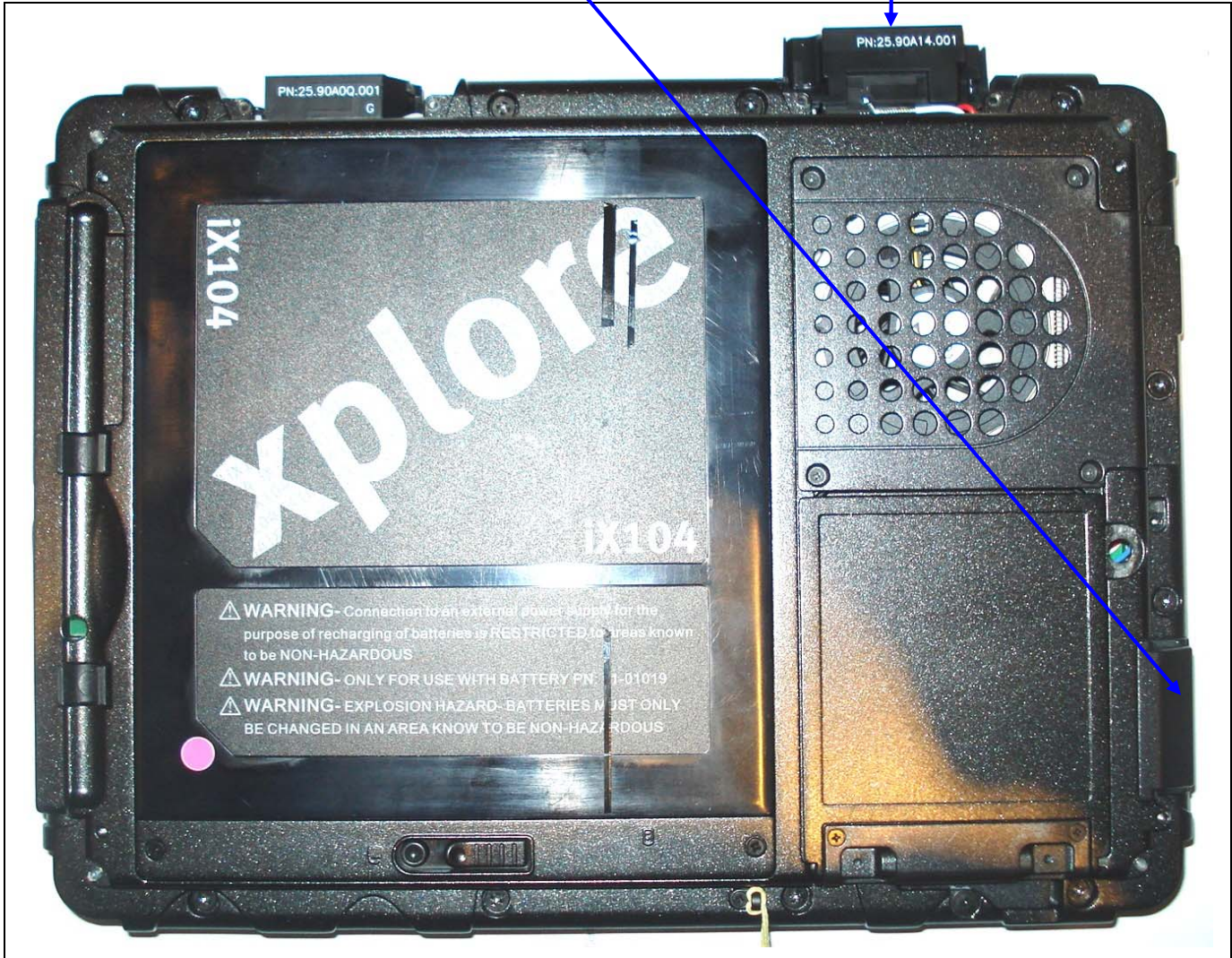


**Bottom Side of Tablet PC with WWAN “PUMP-UP” Antenna Housing**


|                         |  |                |              |            |                |             |
|-------------------------|--|----------------|--------------|------------|----------------|-------------|
| <b>Applicant:</b>       | Xplora Technologies Corp.  | <b>FCC ID:</b> | Q2G16200-XPL | <b>IC:</b> | 4596A-I6200XPL |             |
| <b>DUT Type:</b>        | Model: 622ANHMW 802.11abgn WLAN Mini-PCI Express Card installed in iX104C5 Tablet PC (LMA)                           |                |              |            |                |             |
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Bluetooth  
Antenna  
Location

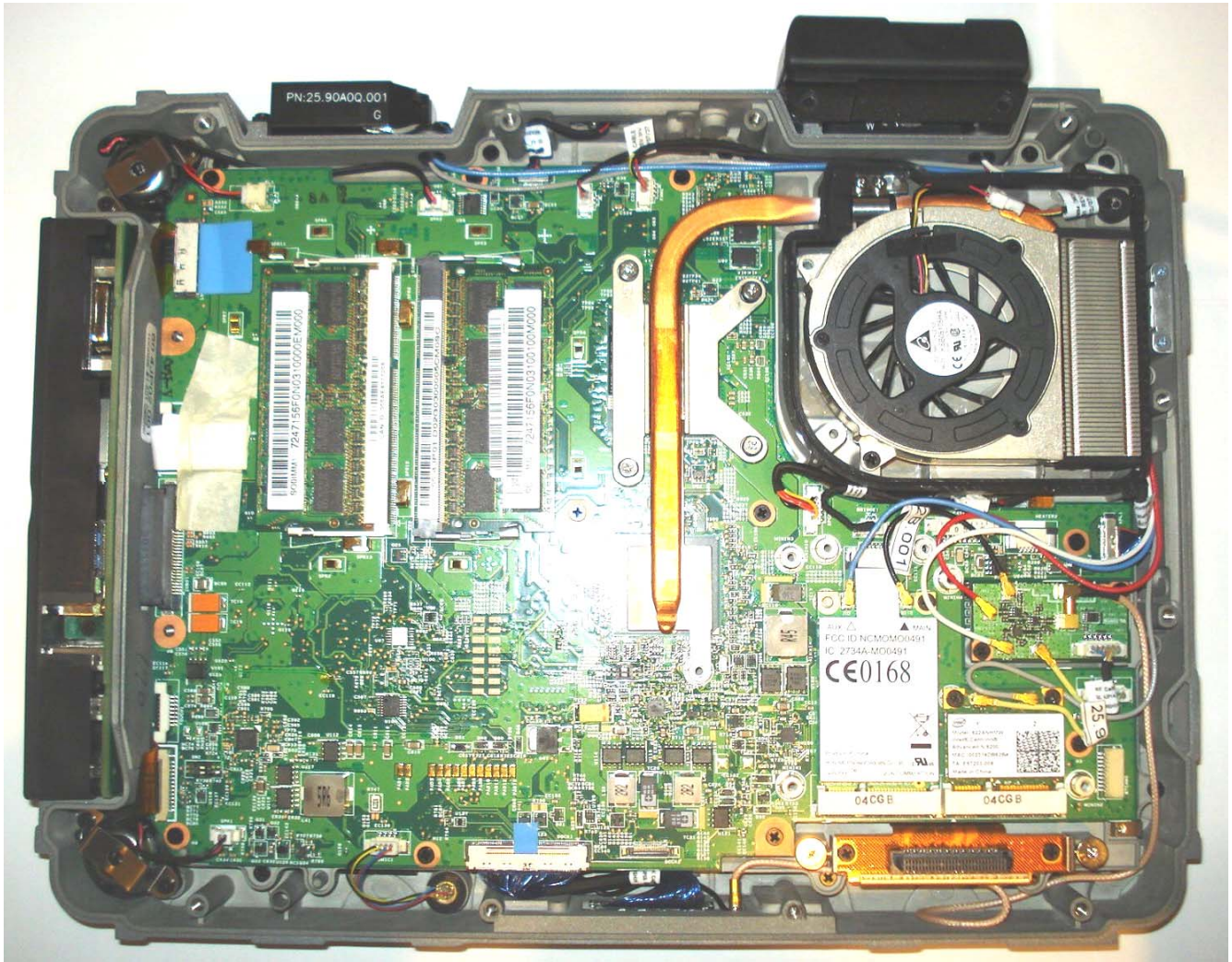
WLAN MAIN Transmit  
Antenna Location  
(WWAN Pump-Up)



**ANTENNA LOCATION(S) – BOTTOM SIDE OF ix104C5 TABLET PC**

|                         |  |                |              |            |                |   |
|-------------------------|--|----------------|--------------|------------|----------------|---|
| <b>Applicant:</b>       | Xplore Technologies Corp.  | <b>FCC ID:</b> | Q2GI6200-XPL | <b>IC:</b> | 4596A-I6200XPL |  |
| <b>DUT Type:</b>        | Model: 622ANHMW 802.11abgn WLAN Mini-PCI Express Card installed in ix104C5 Tablet PC (LMA)                           |                |              |            |                |   |
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**Internal View of Tablet PC with WWAN "PUMP-UP" Antenna Housing**



|                         |  |                |              |            |                |             |
|-------------------------|--|----------------|--------------|------------|----------------|-------------|
| <b>Applicant:</b>       | Xplore Technologies Corp.  | <b>FCC ID:</b> | Q2GI6200-XPL | <b>IC:</b> | 4596A-I6200XPL |             |
| <b>DUT Type:</b>        | Model: 622ANHMW 802.11abgn WLAN Mini-PCI Express Card installed in iX104C5 Tablet PC (LMA)                           |                |              |            |                |             |
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