

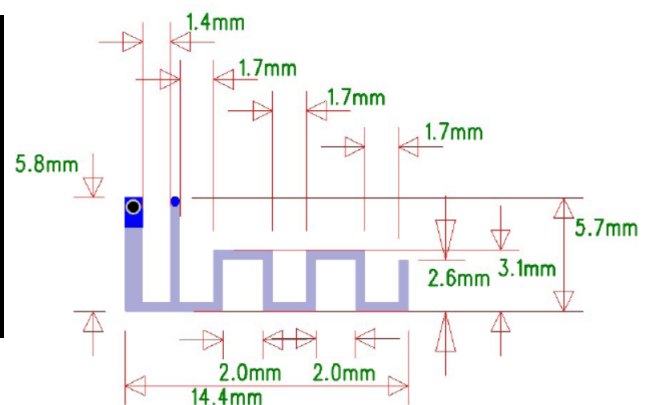
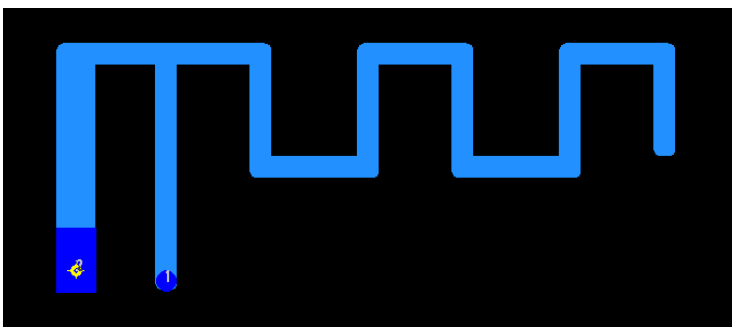
## Product specification

### Quick Reference Date

|                            |                                                    |
|----------------------------|----------------------------------------------------|
|                            | Antenna module on the system board                 |
| Frequency                  | 2.45GHz <sup>*1</sup>                              |
| Ant. Port Input Pwr. (dBm) | 0 (Typ. BT class 2 output power)                   |
| Tot. Rad. Pwr. (dBm)       | -2.3 (Input pwr – loss pwr)                        |
| Peak EIRP(dBm)             | 1.7                                                |
| Directivity (dBi)          | 1 (all direction antenna)                          |
| Efficiency (dB)            | -2.3 (58.5%)                                       |
| Gain (dBi)                 | 1.7 (Peak Gain XY-plane)                           |
| Maximum Power (dBm)        | 1.7 (XY-plane)                                     |
| Minimum Power (dBm)        | -4(XY-plane)                                       |
| Avg. Power (dBm)           | -0.5(XY-plane)                                     |
| Max/Min Ratio (dB)         | 5.3(XY-plane)                                      |
| Max/Avg Ratio (dB)         | 1.8(XY-plane)                                      |
| Min/Avg Ratio (dB)         | -3.5(XY-plane)                                     |
| Average Gain (dB)          | -0.5 (Avg Gain XY-plane)                           |
| Antenna Type               | PCB Antenna                                        |
| Manufacturer               | PowerStick.com Inc.                                |
| Address                    | 39 Camelot Drive, Ottawa, Ontario, Canada, K2G 5W6 |

All the technical data and information contained herein are subject to change without prior notice

### Antenna Layout & module on the system board

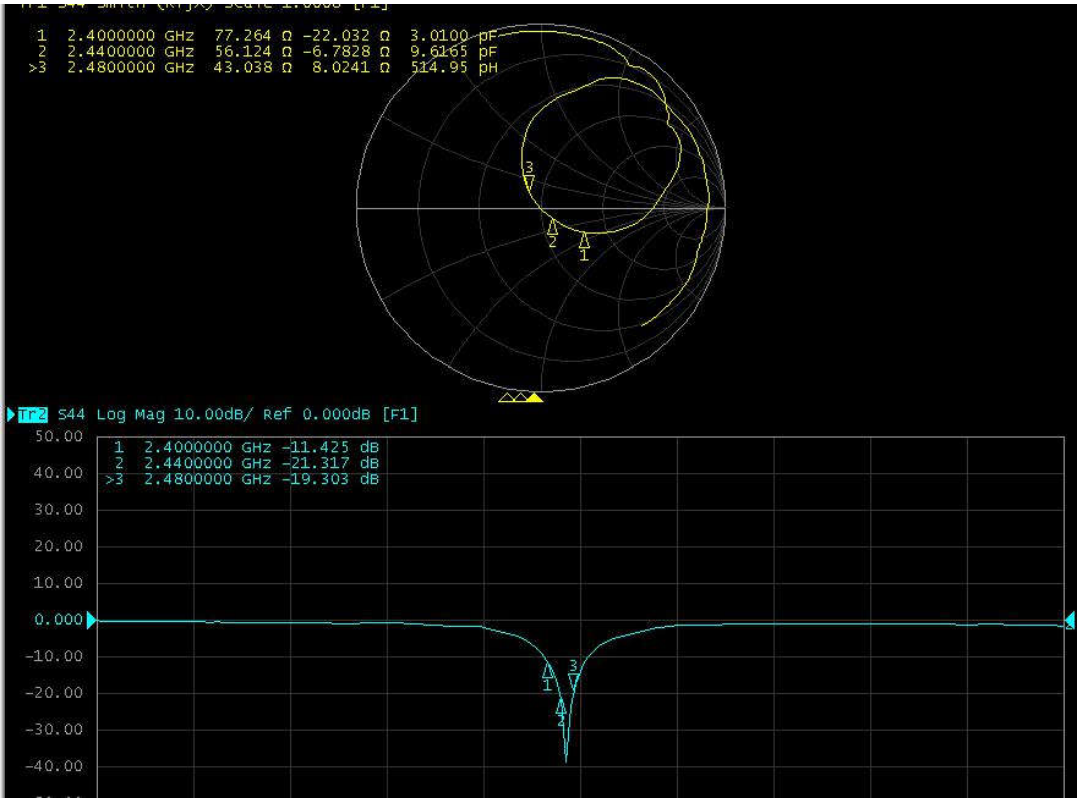


### Antenna Gain

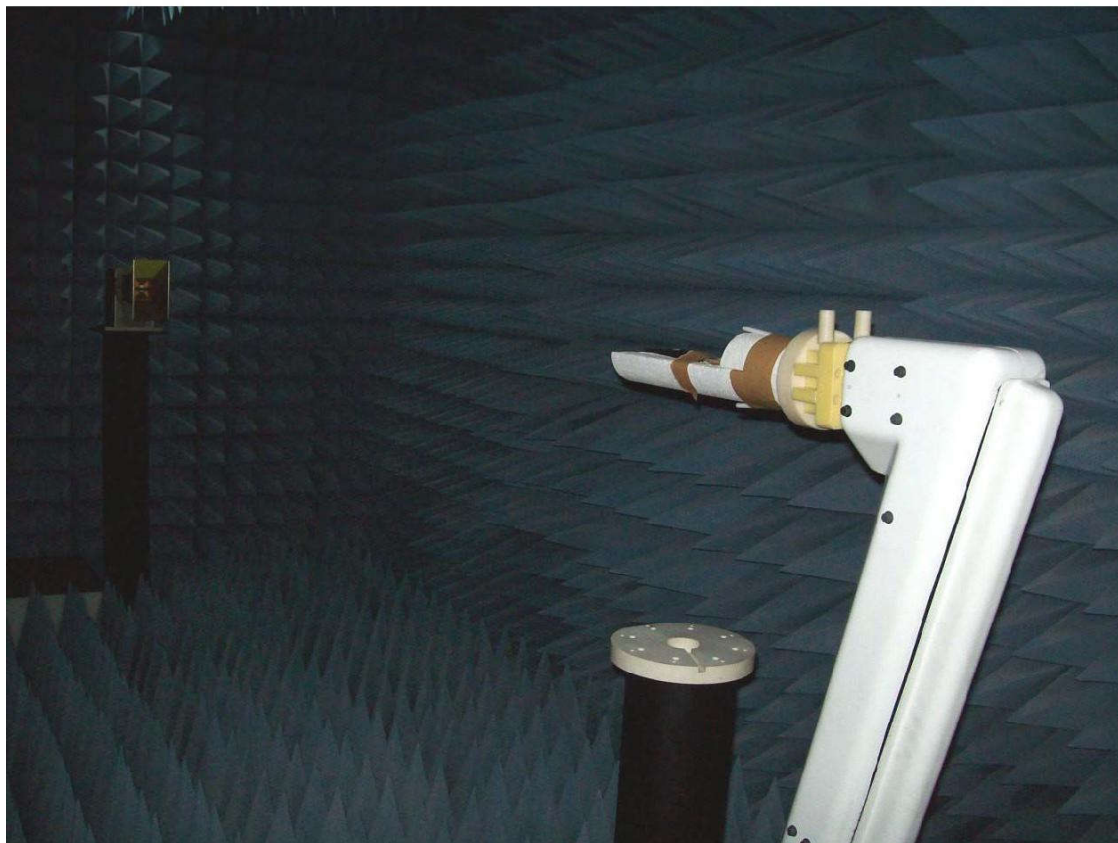
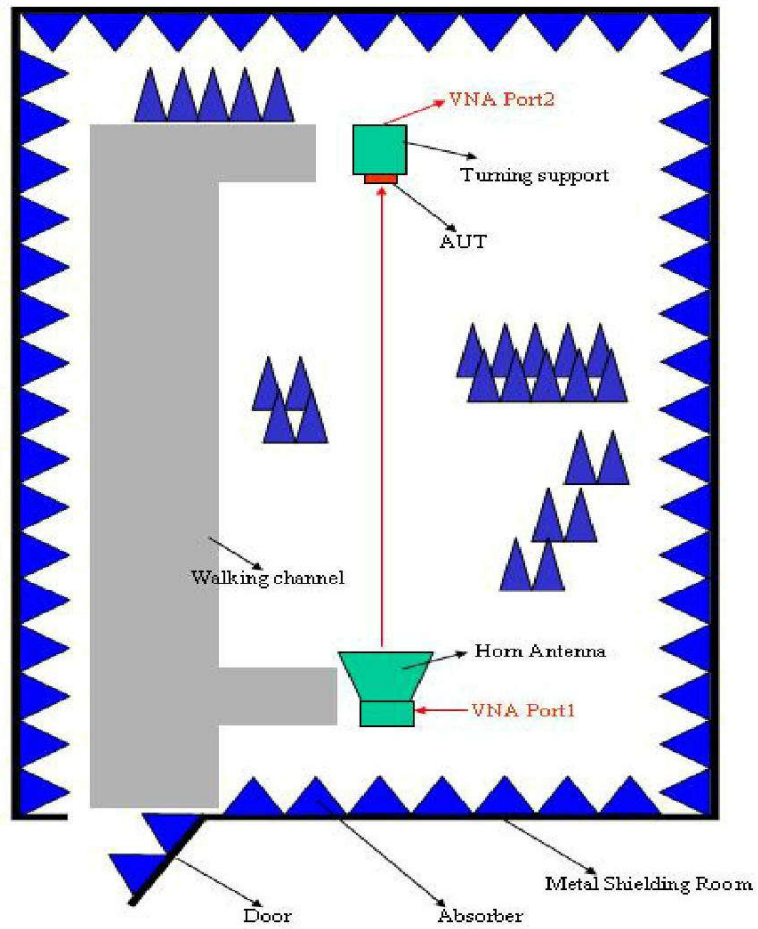
Gain Table

| Unit in dBi @2.44GHz | XY-plane |      | XZ-plane |      | YZ-plane |      | Efficiency |
|----------------------|----------|------|----------|------|----------|------|------------|
|                      | Peak     | Avg. | Peak     | Avg. | Peak     | Avg. |            |
| Module Board         | 1.3      | -0.5 | 1.7      | -3.8 | 1.1      | -3.0 | 58.5%      |

Return Loss



## The Environment of Antenna Radiation Pattern



3D radiation pattern diagram

