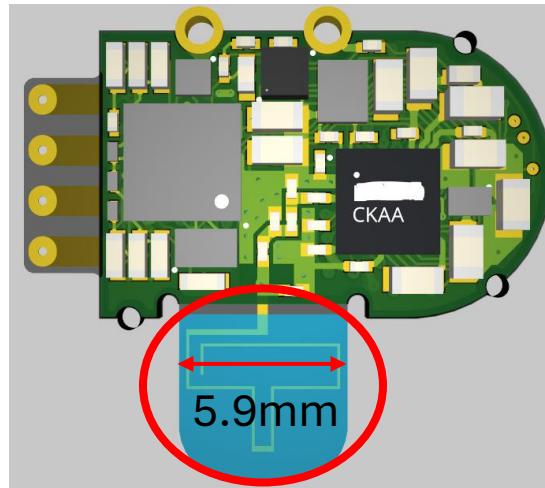


# X02,X01,X00 Flex Loop Antenna Test Data

The X02, X01, X00 Flex Loop Antenna is an antenna structure fabricated onto the implant's Flex portion of the PCB. The device under test (DUT) was performed in Speag broad band solution to emulate tissue with a wall depth of 5mm. The antenna is designed and tuned for implantation. Data represented at 2440MHz, highest gain between 2400-2480MHz BLE Spectrum.



| Frequency    | 2440MHz (Center of BLE Spectrum) |
|--------------|----------------------------------|
| Average Gain | -18.16dBi                        |
| Peak Gain    | -14.48dBi                        |
| Efficiency   | 1.53%                            |

# ACTIVE 3D ANTENNA PATTERN MEASUREMENTS



|                       |                                   |
|-----------------------|-----------------------------------|
| EUT:                  | OTA                               |
| Serial Number:        | 2-2                               |
| Customer:             | Data Sciences International, Inc. |
| Attendees:            | Dustin Morris                     |
| Customer Project:     | None                              |
| Tested By:            | Christopher Heintzelman           |
| Test Run Description: | 2-2_2440                          |

| OTA 2018.01.04     |            |
|--------------------|------------|
| Work Order:        | DSCI0004   |
| Date:              | 12/22/2023 |
| Temperature:       | 22.3 °C    |
| Relative Humidity: | 30.8% RH   |
| Bar. Pressure:     | 1020 mbar  |
| Job Site:          | MN10       |

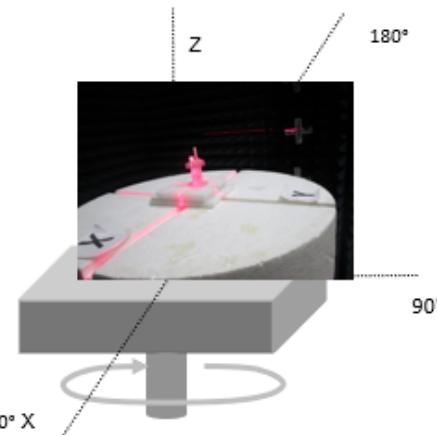
## COMMENTS

Mouse model. -4dBm APIP provided by the customer.

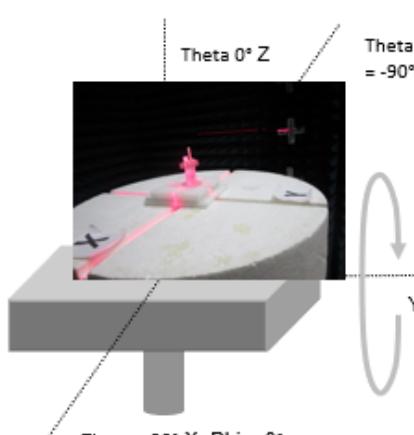
## 3D PATTERN DATA

|                            |        |
|----------------------------|--------|
| Frequency (MHz)            | 2440   |
| Ant. Port Input Pwr. (dBm) | -4.00  |
| Tot. Rad. Pwr. (dBm)       | -22.16 |
| Peak EIRP (dBm)            | -18.48 |
| Directivity (dBi)          | 3.68   |
| Efficiency (dB)            | -18.16 |
| Efficiency (%)             | 1.53   |
| Peak Gain (dBi)            | -14.48 |
| Average Gain (dB)          | -18.16 |
| E-Plane 3 dB BW (°)        | 132.00 |

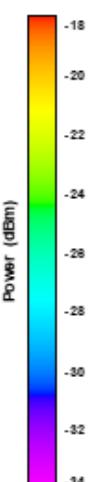
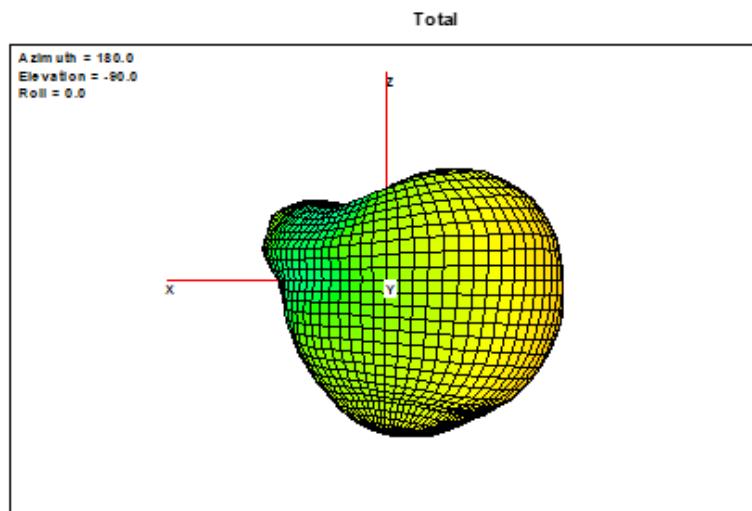
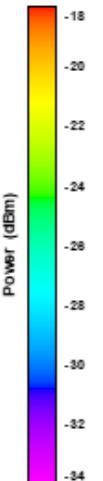
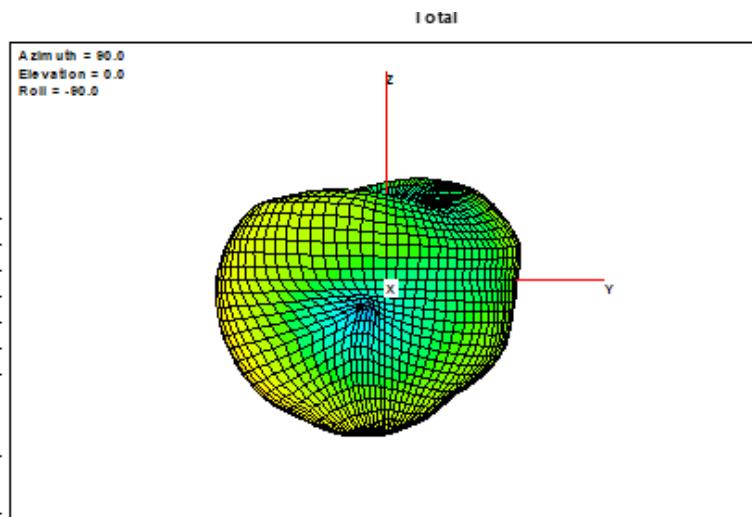
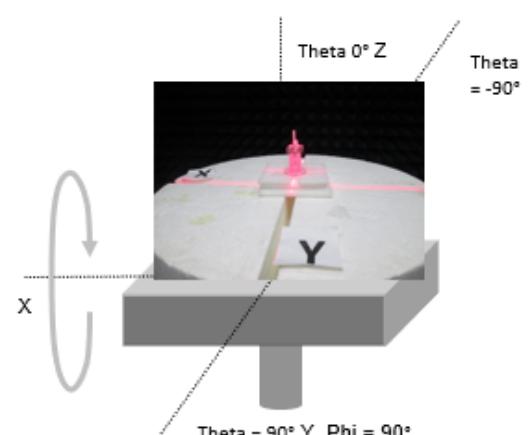
Azimuth Cut (Theta Axis = 90°)



Elevation Cut (Phi Axis = 0°)



Elevation Cut (Phi Axis = 90°)



# 2D Polar Plots

