

Antenna Info:

The TAP is a special design patch or microstrip antenna. Like the quarterwave patch antenna it has two sides that are grounded and two that are open with a bare dielectric margin area surrounding the antenna but it is not square in shape. It has a calculated gain maximum of -9.41 dB in free space, and it is mostly omni directional with a 10 dB bandwidth of 30 MHz. The free space return loss is quite high, on the order of -2.7 dB. When the antenna is placed close to the thorax, as it is specifically designed for very close placement 1.0 to 5.0 mm, the Tap has lower return loss, less than -20 dB. The tuned TAP has a 10 dB bandwidth of 14 MHz when tuned for close human thorax positioning and the TAP antenna gain may increase accordingly. The amount of RF energy entering the human body is calculated to 45% of the transmitter power coming from the TAP according to SAR calculations on REMCOM XFDTD 6.4 analysis software suite.

