

Antenna Data Sheet – VitalPro-01

Tyme Wear, Inc.

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Antenna Manufacturer Information

Antenna Type: Printed L-monopole

Mounting Location: Copper trace integrated into the internal PCB of Model VitalPro-01

Antenna Designer/Manufacturer: Tyme Wear, Inc. – Internal Design

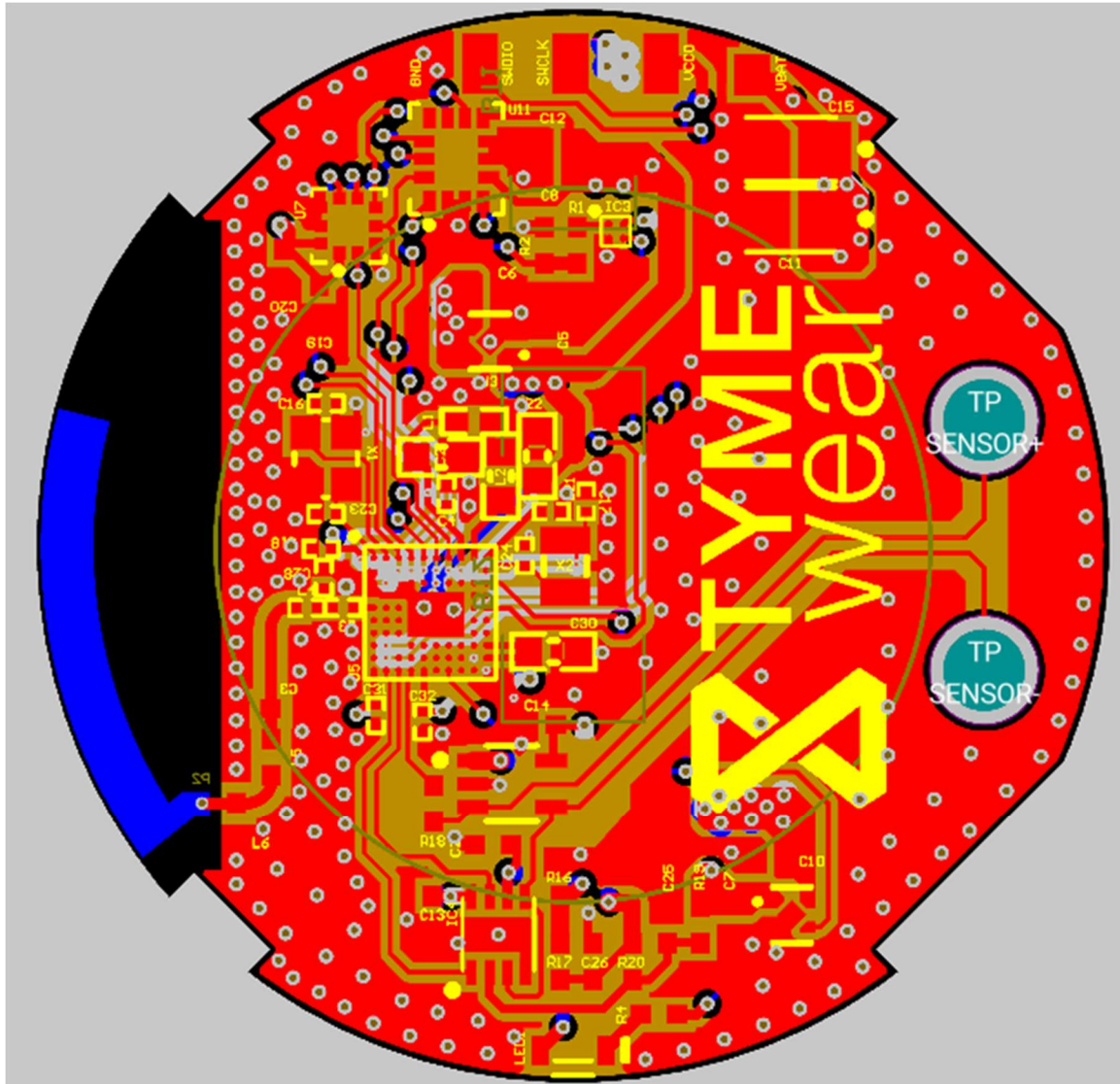


Fig. 1 – Copper trace antenna (highlighted in blue)

Antenna Description

This document provides antenna gain data for the integrated printed L-monopole antenna used in Model VitalPro-01. The antenna was internally designed by Tyme Wear, Inc. for optimized performance in the 2.4 GHz ISM band. All measurements were conducted under controlled laboratory conditions.

Table 1 below summarizes the antenna’s gain at key frequencies within the band. The approximate operational frequency range is based on the point at which the return loss (S11) reaches -10 dB, indicating efficient power transfer.

The antenna is permanently integrated into the product’s PCB, is not accessible to the end user, and is not replaceable or modifiable.

Antenna Type	Max Gain @ Frequency	Frequency Band (@ S11 ≤ -10 dB)
Printed L-monopole	0.17 dBi @ 2480 MHz	2395 – 2480 MHz
	-0.23 dBi @ 2440 MHz	
	0.00 dBi @ 2402 MHz	

Table 1 – Summary of Antenna Gain

Supporting Graphs and Figures

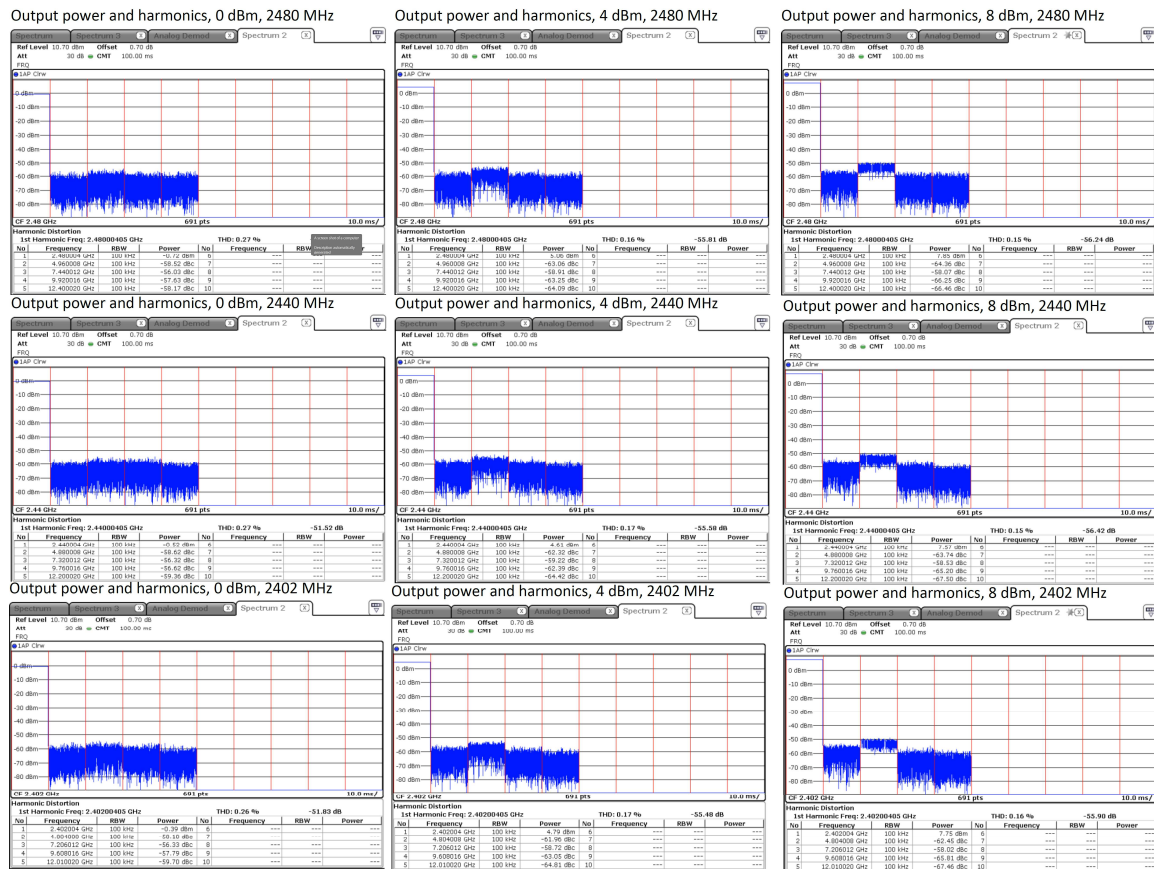


Fig. 2 – Output power and harmonics for different power outputs on key frequencies within the frequency band

Impedance & SWR – After tuning: L3=4.7nH, L4=4.7nH, C28=0.7pF ; L5=5.6nH, L6=2.7nH, C3=DNP

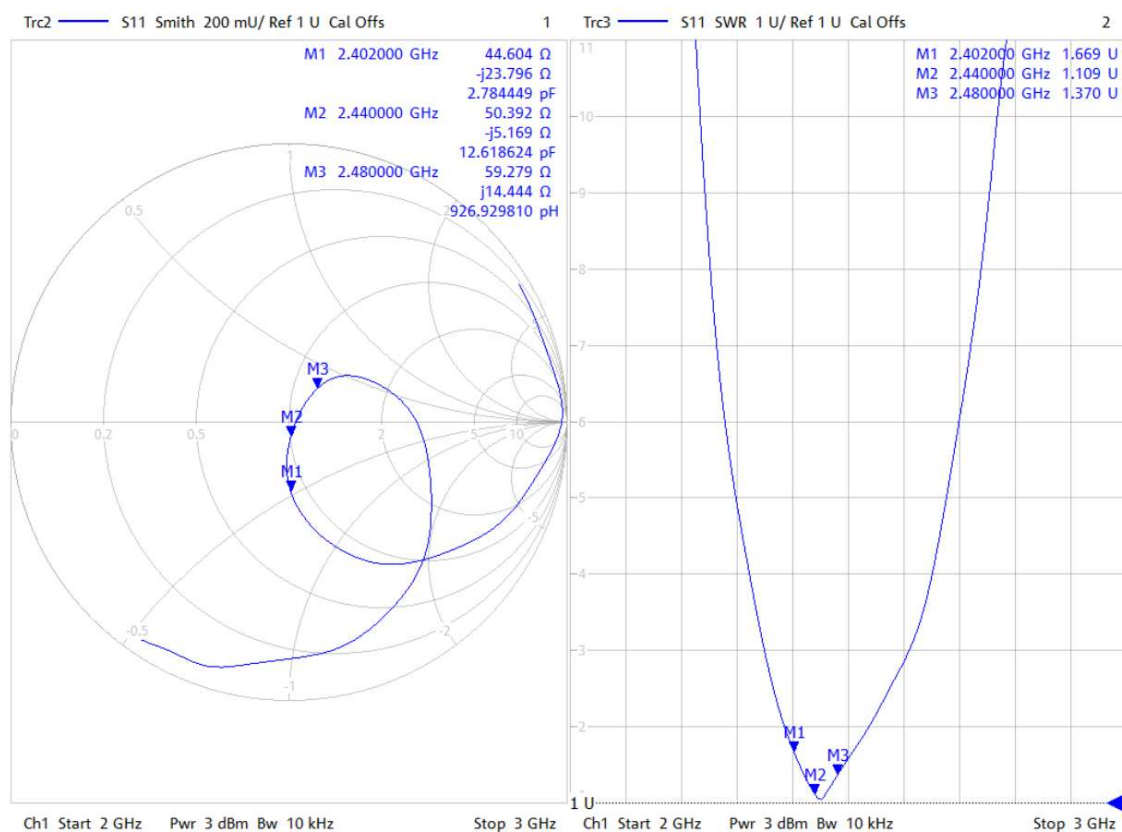


Fig. 3 – Impedance and SWR after tuning

Additional Notes

- Tuning Circuit: If used, the matching network is optimized for center frequency performance in the 2.4 GHz ISM band.
- Test Equipment and Setup: Measurements were performed in a calibrated anechoic chamber using a vector network analyzer and standard PCB fixture alignment.