

# Antenna Data Sheet – VitalPro-01

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Tyme Wear, Inc.

Date: 04/16/2025

## 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

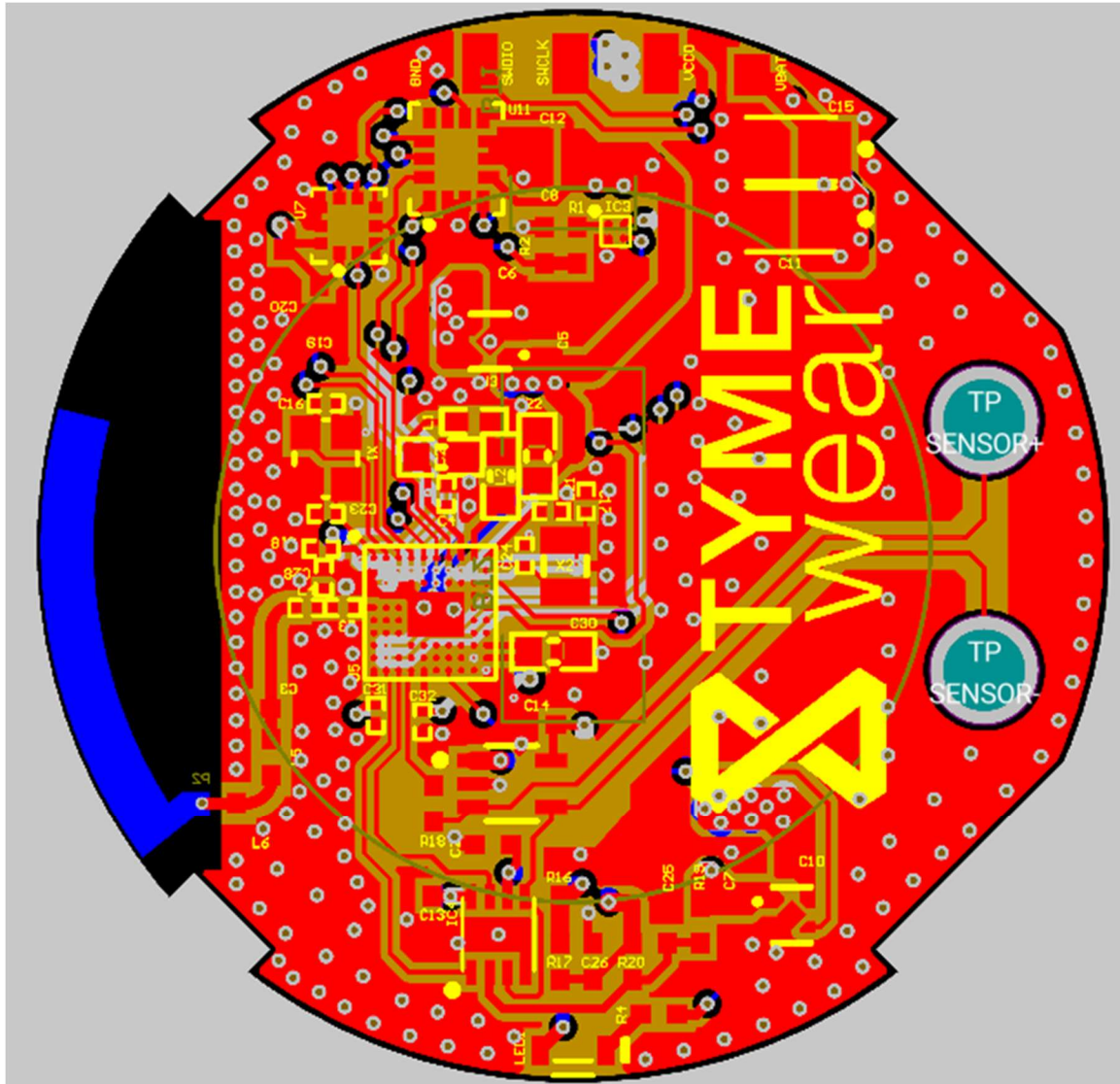


Fig. 1 – Copper trace antenna (highlighted in blue)

## 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

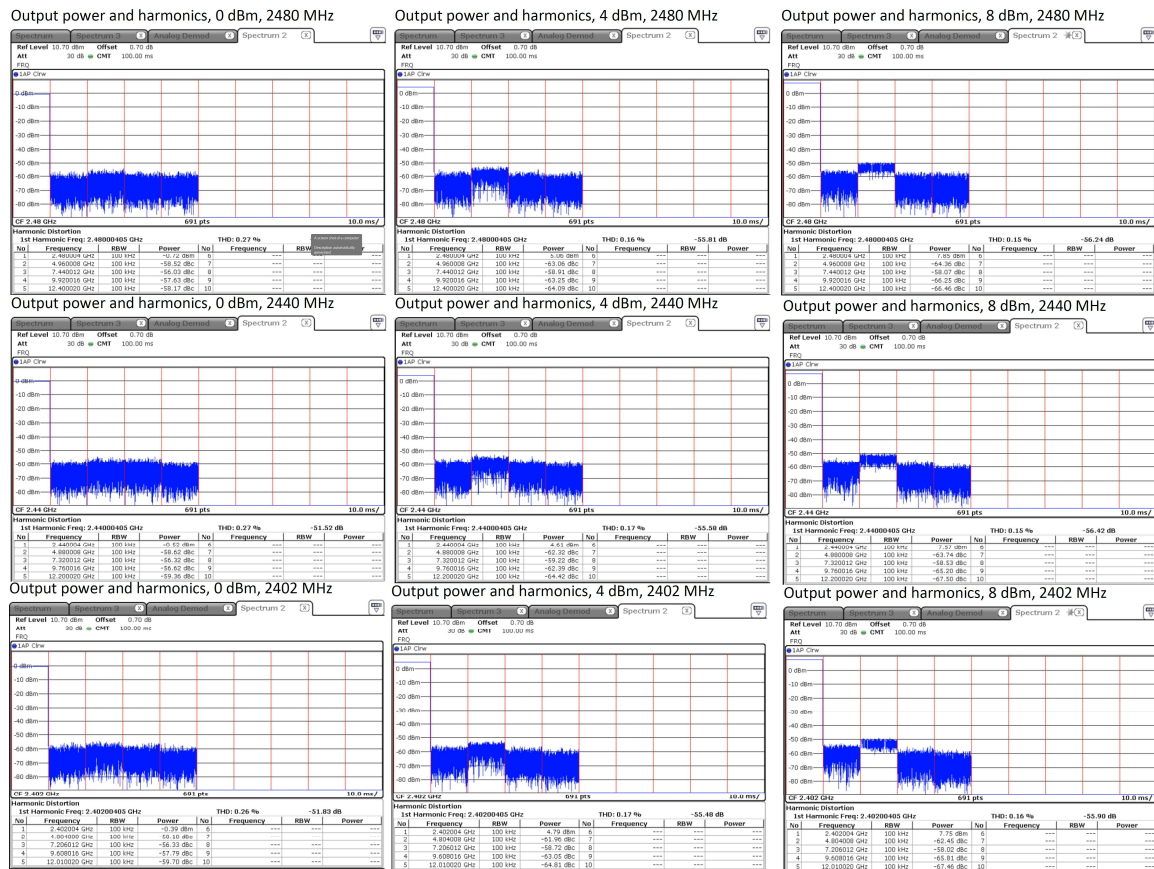


Fig. 2 – Output power and harmonics for different power outputs on key frequencies within the frequency band

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

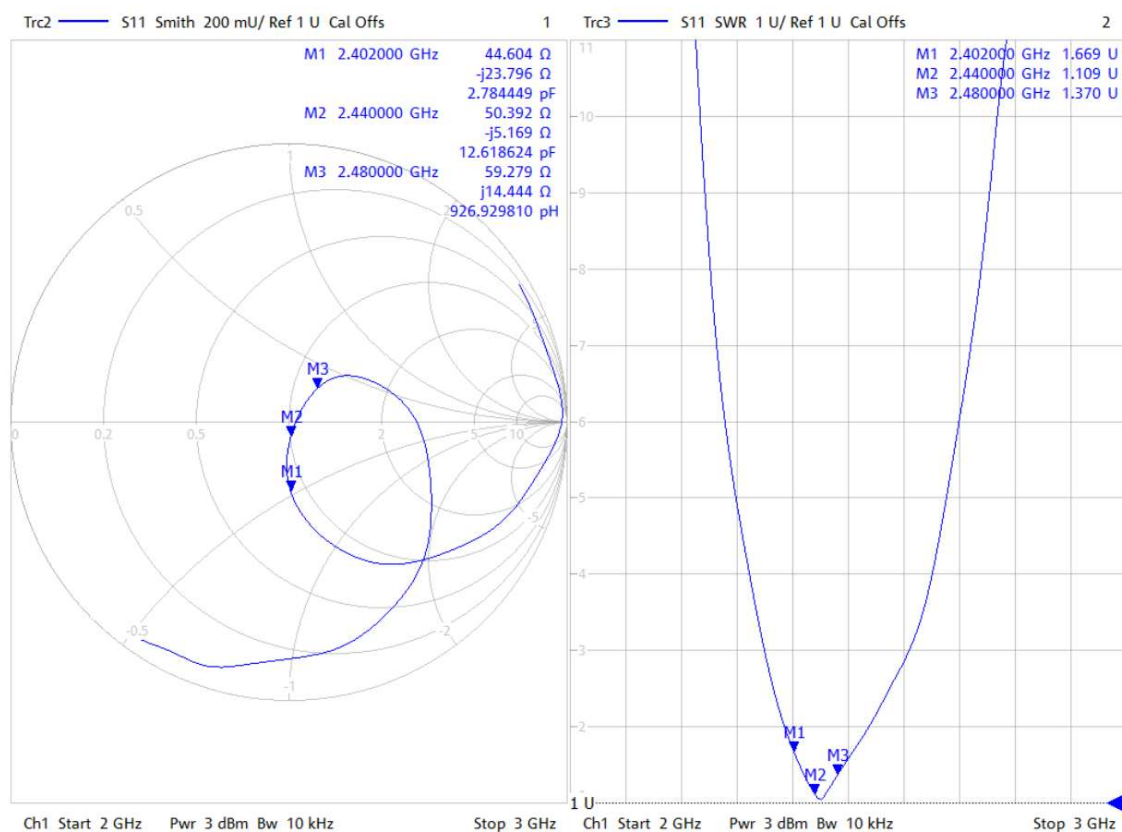


Fig. 3 – Impedance and SWR after tuning

### 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.