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		Document Number:	515_2167
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Document Title:	Atmo Gas Capsule Antenna Design		
Project name	Finch		

Document Signoff

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Version History

Revision	Date	Description
01	Feb 28, 2024	Initial release.
02	Apr 12, 2024	Update to remove irrelevant information for FCC submission.

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1 Electrical Specification

The antenna used in the Atmo Gas Capsule is a proprietary patch-meander-patch (PMP) antenna with a 0.25mm meander line width and a 0.25mm gap. The ground patch is 24.3mm long and 6mm wide. The top patch is 26mm long and 2.5mm wide.

The antenna is tuned to a center frequency of 433.9 MHz by an 82nH series inductor.

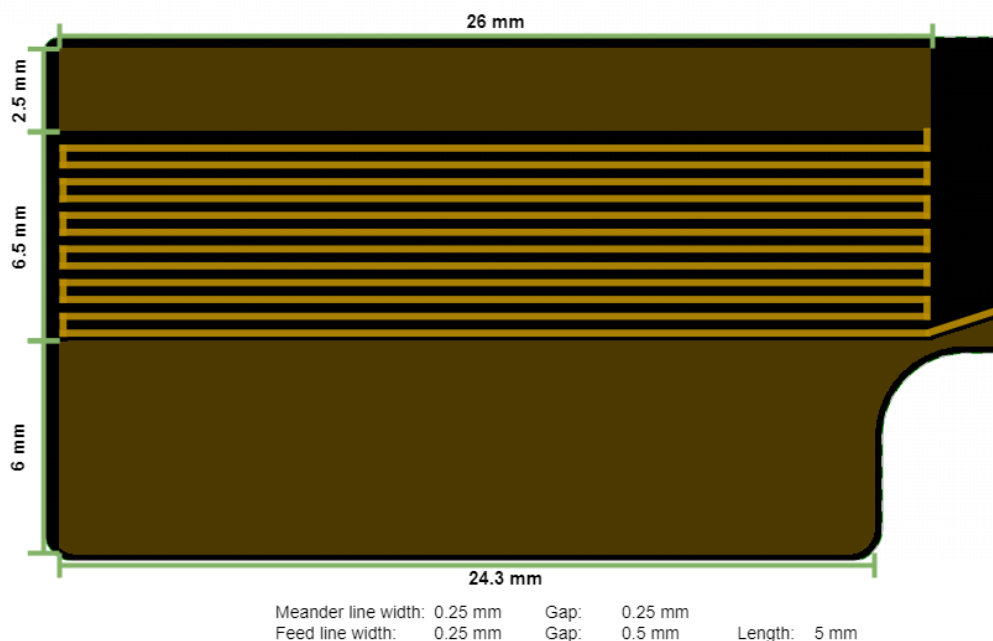


Figure 1 – 2D depiction of antenna.

The antenna is furled around the rigid sections of the printed circuit board assembly (PCBA) into the Capsule during assembly. This assembly is completely enclosed in plastic housing.

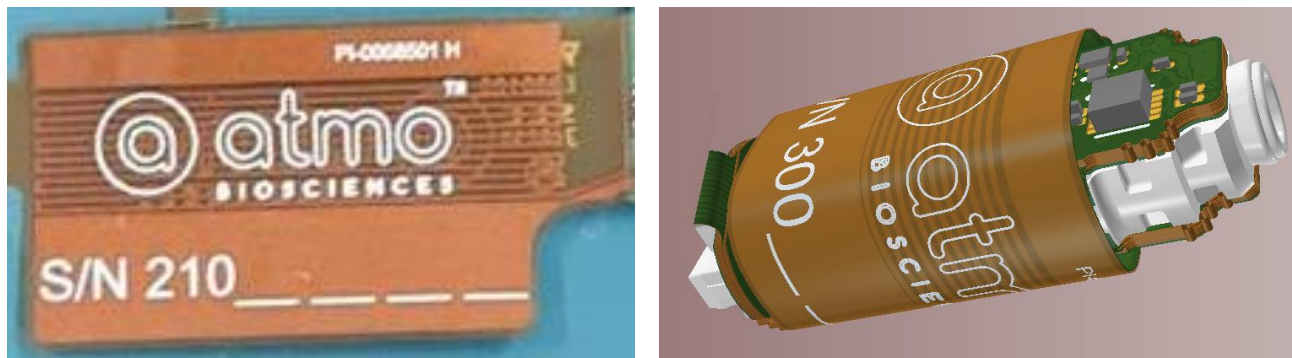


Figure 2 – Left: antenna, unfurled. Right: antenna, furled.

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