

# PCB Trace Antenna – Repeater – ANT 1 (915MHz)

V1.0

## 1. Index

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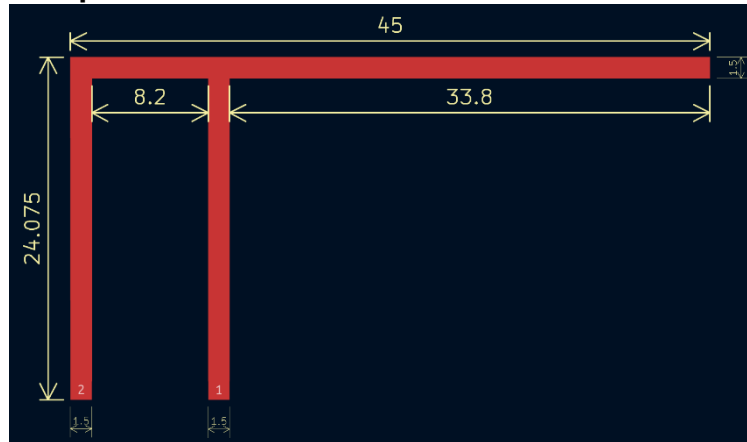
Manufacturer:

Address:

## 2. Specification

**Product Number: PCB Trace Antenna - Repeater – ANT 1 (915MHz)**

**Sample Photo:**



### A. Electrical Characteristics

|              |               |
|--------------|---------------|
| Frequency    | 900 – 930 MHz |
| Gain         | 0.31 dBi Max  |
| Efficiency   | 46.9 %        |
| Polarization | Linear        |
| Impedance    | 50 $\Omega$   |

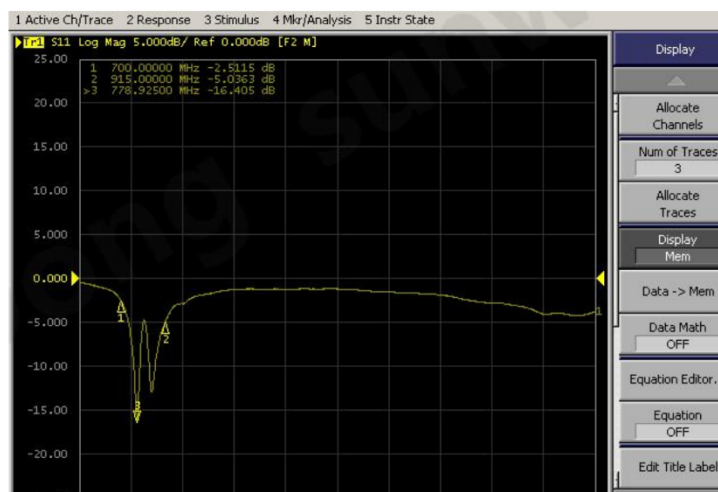
### B. Material & Mechanical Characteristics

|                      |                                                                            |
|----------------------|----------------------------------------------------------------------------|
| Material of Radiator | 1 oz copper trace on FR-4 ( $\epsilon_r \approx 4.5$ ), HASL / ENIG finish |
| Cable Type / Length  | N/A – direct 50 $\Omega$ microstrip feed on host PCB                       |
| Connector Type       | N/A – integrated PCB trace                                                 |

### C. Environmental

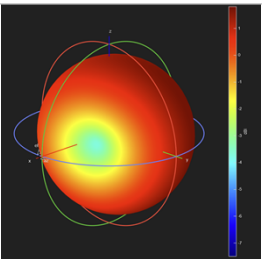
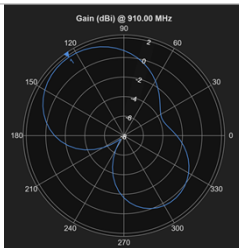
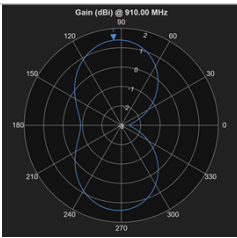
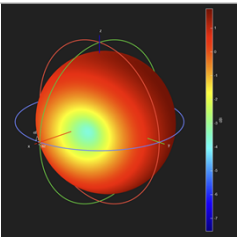
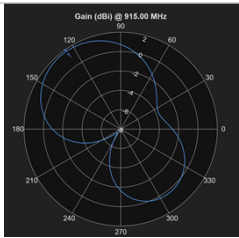
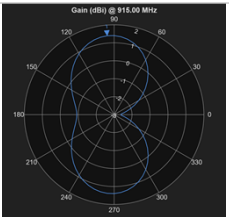
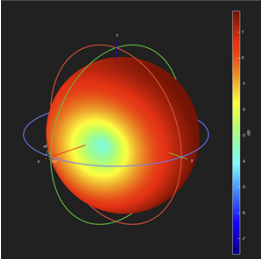
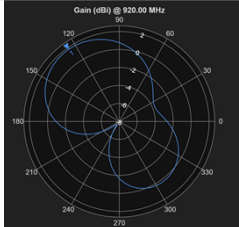
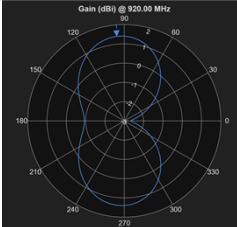
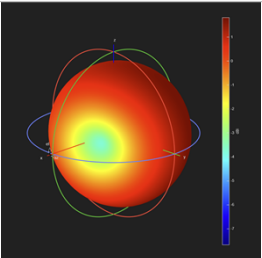
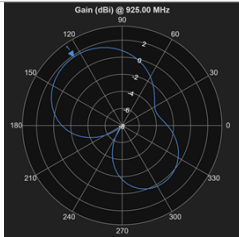
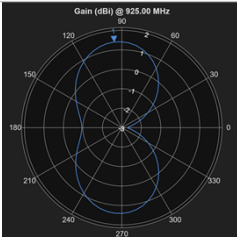
|                       |                  |
|-----------------------|------------------|
| Operation Temperature | -40 °C to +85 °C |
| Storage Temperature   | -40 °C to +85 °C |

## 3. Return Loss



## 4. Radiation Pattern

### Tuned Antenna

| Frequency   | Efficiency (%) | Efficiency (dB) | Gain (dBi)   | 3D Pattern                                                                          | AZ Pattern                                                                           | EL Pattern                                                                            |
|-------------|----------------|-----------------|--------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>900M</b> | <b>48.9</b>    | <b>-3.10</b>    | <b>0.31</b>  |    |    |    |
| <b>915M</b> | <b>46.9</b>    | <b>-3.28</b>    | <b>0.05</b>  |    |    |    |
| <b>920M</b> | <b>44.6</b>    | <b>-3.51</b>    | <b>-0.06</b> |   |   |   |
| <b>925M</b> | <b>43.0</b>    | <b>-3.66</b>    | <b>-0.06</b> |  |  |  |