

# ANTENNAS

## DUAL AND SINGLE FREQUENCY

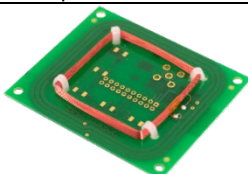
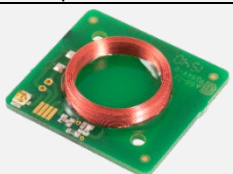
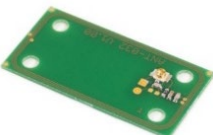
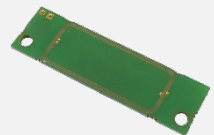
### LOW FREQUENCY AIRCOIL<sup>1)</sup> ANTENNAS (125 KHZ)

| ORDER CODE                      | ANT-002                                                                           | ANT-004                                                                           | ANT-006                                                                           | ANT-010 <sup>1)</sup>                                                              | ANT-036                                                                             | ANT-039                                                                             |
|---------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| INNER Ø <sup>2)</sup> (MM/INCH) | 47 / 1.85                                                                         | 5.1 / 0.2                                                                         | 17 / 0.67                                                                         |                                                                                    | 16 / 0.63                                                                           | 14.1 / 0.56                                                                         |
| OUTER Ø <sup>2)</sup> (MM/INCH) | 52 / 2.05                                                                         | 5.17 / 0.21                                                                       | < 20.8 / 0.82                                                                     | 8.5 / 0.34                                                                         | 20.4 / 0.8                                                                          | 16.3 / 0.64                                                                         |
| HEIGHT <sup>2)</sup> (MM/INCH)  | 4 / 0.16                                                                          | 4 / 0.16                                                                          | 4 / 0.16                                                                          | 21 / 0.83                                                                          | 2 / 0.08                                                                            | 2.2 / 0.09                                                                          |
| INDUCTANCE                      | 490 µH ± 5%                                                                       | 490 µH ± 5%                                                                       | 490 µH ± 5%                                                                       | 490 µH ± 5%                                                                        | 490 µH ± 5%                                                                         | 490 µH ± 5%                                                                         |
| PICTURE                         |  |  |  |  |  |  |

### LOW FREQUENCY AIRCOIL ANTENNAS (125 KHZ)

| ORDER CODE                     | ANT-005                                                                            | ANT-007                                                                            | ANT-013                                                                            | ANT-015                                                                             | ANT-031                                                                              | ANT-033                                                                              |
|--------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| LENGTH <sup>3)</sup> (MM/INCH) | 40 / 1.57                                                                          | 57 / 2.27                                                                          | 41 / 1.61                                                                          | 30 / 1.18                                                                           | 31 / 1.22                                                                            | 27.5 / 1.08                                                                          |
| WIDTH <sup>3)</sup> (MM/INCH)  | 20 / 0.79                                                                          | 36 / 1.42                                                                          | 30 / 1.18                                                                          | 28 / 1.1                                                                            | 31 / 1.22                                                                            | 15 / 0.59                                                                            |
| HEIGHT <sup>3)</sup> (MM/INCH) | 3.2 / 0.13                                                                         | 3 / 0.12                                                                           | 2 / 0.08                                                                           | 3 / 0.12                                                                            | ~2 / 0.08                                                                            | 2.5 / 0.1                                                                            |
| INDUCTANCE                     | 490 µH ± 5%                                                                        | 490 µH ± 5%                                                                        | 490 µH ± 5%                                                                        | 490 µH ± 5%                                                                         | 490 µH ± 5%                                                                          | 490 µH ± 5%                                                                          |
| PICTURE                        |  |  |  |  |  |  |

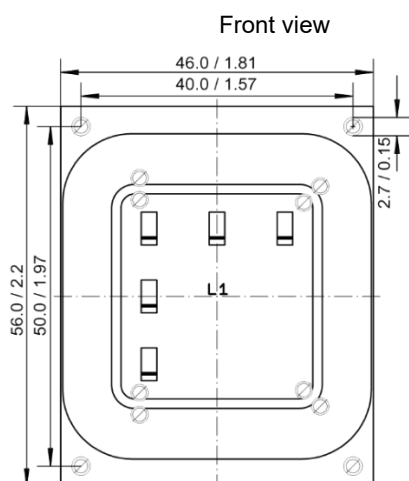
### PCB ANTENNAS<sup>4)</sup>

| ORDER CODE       | ANT-022                                                                             | ANT-023                                                                             | ANT-032                                                                              | ANT-037                                                                               |
|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| FREQUENCY        | 125/134.2 kHz + 13.56 MHz                                                           | 125/134.2 kHz + 13.56 MHz                                                           | 13.56 MHz                                                                            | 13.56 MHz                                                                             |
| LENGTH (MM/INCH) | 56 / 2.20                                                                           | 33 / 1.30                                                                           | 20 / 0.79                                                                            | 54 / 2.13                                                                             |
| WIDTH (MM/INCH)  | 46 / 1.81                                                                           | 30 / 1.18                                                                           | 40 / 1.57                                                                            | 15 / 0.59                                                                             |
| HEIGHT (MM/INCH) | 6 / 0.24                                                                            | 6 / 0.24                                                                            | 2.2 / 0.09                                                                           | 2.2 / 0.09                                                                            |
| IMPEDANCE (HF)   | 50 Ohm                                                                              | 50 Ohm                                                                              | 50 Ohm                                                                               | 50 Ohm                                                                                |
| INDUCTANCE (LF)  | 490 µH ± 5%                                                                         | 490 µH ± 5%                                                                         |                                                                                      |                                                                                       |
| CONNECTORS       | LF: Pin Header<br>HF: UMCC/U.FL<br>SMA SMB, SMC, MCX                                | LF: pads 1 mm / 0.04 inch<br>HF: UMCC/U.FL,<br>pads 1 mm / 0.04 inch                | HF: UMCC/U.FL                                                                        | HF: UMCC/U.FL                                                                         |
| CABLES           | CAB-L1 <sup>5)</sup> , CAB-F1 <sup>6)</sup>                                         | CAB-L1 <sup>5)</sup> , CAB-F1 <sup>6)</sup>                                         | CAB-L1 <sup>5)</sup> , CAB-F1 <sup>6)</sup>                                          | CAB-L1 <sup>5)</sup> , CAB-F1 <sup>6)</sup>                                           |
| 3D MODEL (STEP)  | On request                                                                          | On request                                                                          | On request                                                                           | On request                                                                            |
| PICTURE          |  |  |  |  |

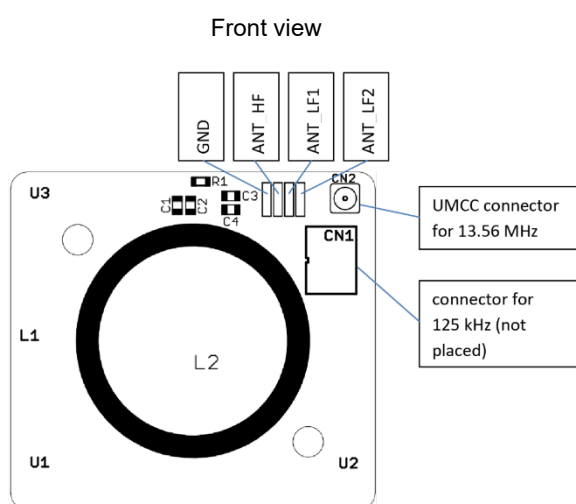
1) ANT-010 is a ferrite antenna 2) Dimensions 3) Outer dimensions 4) Drawings for PCB antennas are on next page 5) UMCC antenna cable, 100mm, female to female for 13.56 MHz, right angle 6) Flat ribbon antenna cable, 100mm, AWG26, 2-pol, 3mm tinned on both sides for 125 kHz

## DRAWINGS FOR PCB ANTENNAS (ALL MEASURES IN MM)

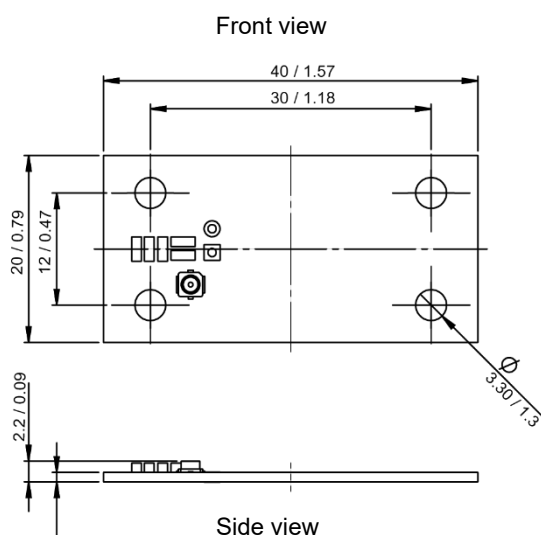
ANT-022



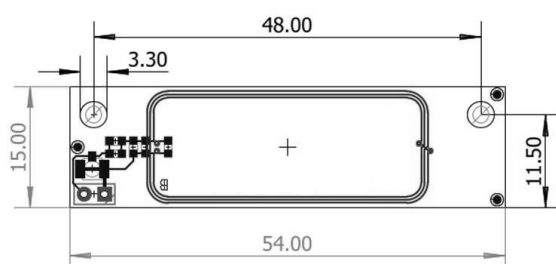
ANT-023



ANT-032



ANT-037



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