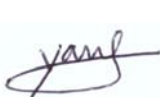


# Specifications of Air Patch Ant.

**MESSRS. (주)아이디로**

**ITEM :** Air Patch Antenna  
**PART NAME :** MACRO200-919  
**MODEL NAME**  
**FEATURES :** 900 MHz ISM Band  
Provide highly stabilized performance  
Rectangular microstrip patch antenna  
**DATE :** February 24, 2021  
**QUANTITY :** pcs

| SUPPLIER : MAC technologies Inc.                                                    |                                                                                     |                                                                                      |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| DRAWN                                                                               | CHECKED                                                                             | APPROVED                                                                             |
|  |  |  |

 **mac technologies**

# 615, Cheongju Techno S Tower, 530, Jikji-daero,

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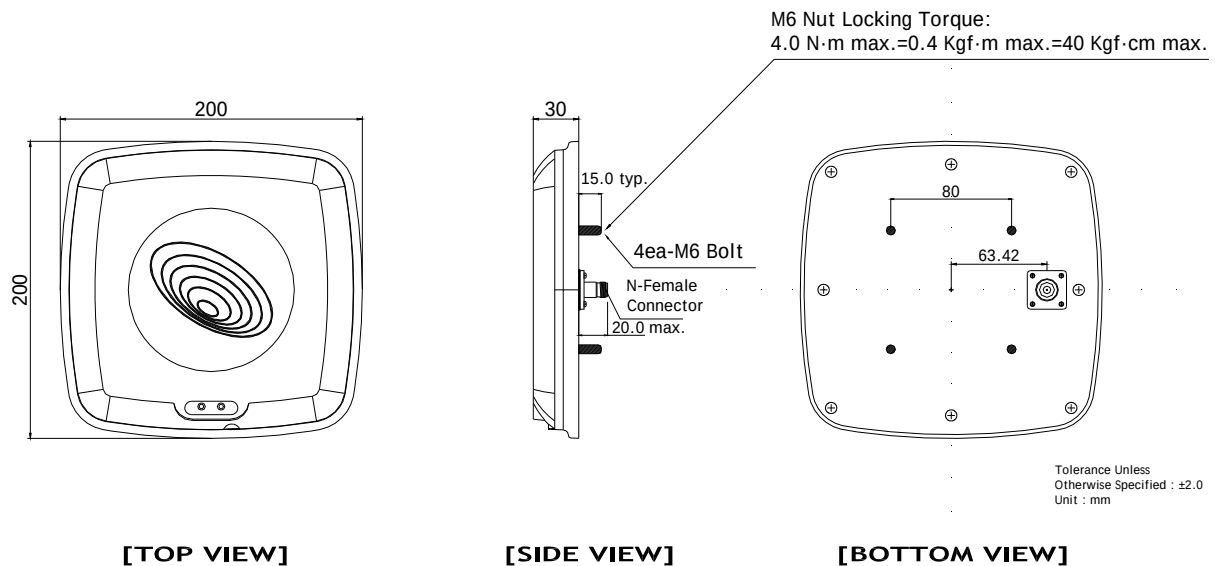
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|                 |                                               |
|-----------------|-----------------------------------------------|
| Title           | RFID Air Patch Ant. Preliminary Specification |
| Document Number | MACQM730-05-21XXX                             |
| Date            | February 24, 2021                             |

## 1. Electrical Specifications.

| NO. | Parameter        | Spec.        | Unit  | Remark |
|-----|------------------|--------------|-------|--------|
| 1   | Center Frequency | 919.0        | MHz   |        |
| 2   | Peak Gain        | 5.58 typ.    | dBi   |        |
|     |                  | 8.5 typ.     | dBic  |        |
| 3   | Polarization     | RHCP         |       |        |
| 4   | Beam Width       | 68 typ.      | Deg.  |        |
| 5   | Band Width       | 90 typ.      | MHz   |        |
| 6   | VSWR             | 1.3 : 1 max. | Ratio |        |
| 7   | Impedance        | 50           | Ohm   |        |

## 2. Mechanical Dimensions. (unit : mm)









|                 |                                               |
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#### 4-5. List of utilized test equipment (MAC technologies Inc.)

| NO | Kind of Equipment and Precision               | Manufacturer                        | Model No.                 | Serial Number | Calibration Date | Specification                                          | Note      |
|----|-----------------------------------------------|-------------------------------------|---------------------------|---------------|------------------|--------------------------------------------------------|-----------|
| 1  | Anechoic Chamber                              | MTG                                 | Mobile Chamber            | -             | N/A              | 4.0 m X 2.5 m X 2.5 m<br>(0.4 ~ 3 GHz)                 |           |
| 2  | Network Analyzer                              | Agilent                             | 8753ES                    | US39173213    | 16/08/23         | 30 KHz ~ 6 GHz                                         |           |
| 3  | Dual-Polarization Horn Antenna with RF Switch | MTG                                 | QRH-004060/<br>RSW-001060 |               | -                | 0.4 MHz ~ 6 GHz                                        | Source    |
| 4  | Calibration Antenna                           | Schwarzbeck<br>Mess -<br>Elektronik | BBHA 9120 A               | 1201          | 10/04/30         | 0.7 MHz ~ 3 GHz                                        | Reference |
| 5  | Absorber Installation                         | EMERSON &<br>CUMING                 | SABS-003<br>18"           |               |                  | Reflectivity :<br>-25 dB @ 0.8 GHz<br>-30 dB @ 1.0 GHz |           |