

# SKA02M3525-30RPSJ

## Dual-Frequency Antenna

### Document Information

|                              |                                          |
|------------------------------|------------------------------------------|
| <b>Title</b>                 | SKA02M3525-30RPSJ Dual-Frequency Antenna |
| <b>Type</b>                  | Datasheet                                |
| <b>Code</b>                  | SL-24090463                              |
| <b>Code</b>                  | V1.02 (28-July-2025)                     |
| <b>Confidentiality Level</b> | Public                                   |

## Revision History

| Version | Description       | Writer | Date     |
|---------|-------------------|--------|----------|
| V1.01   | Original version  | Lena   | 20240911 |
| V1.02   | Update parameters | Taylor | 20250728 |

SKYLAB reserves all rights to this document and its information. SKYLAB owns all intellectual properties concerning products, names, logos, and designs in the document. Copying, using, modification, or disclosure of all or part of the document to third parties without SKYLAB's permission is prohibited.

SKYLAB assumes no liability for the use of the information contained in this document. No explicit or implicit warranties are provided, including, but not limited to, the precision, correctness, reliability, and suitability of the information. SKYLAB reserves the right to revise this document at any time. The latest update can be obtained from [www.skylab.com.cn](http://www.skylab.com.cn).

Copyright © 2025, Skylab M&C Technology Co., Ltd

SKYLAB® is a registered trademark of Skylab M&C Technology Co., Ltd. in China.

## Table of Contents

|                                         |   |
|-----------------------------------------|---|
| Table of Contents .....                 | 3 |
| 1 Product Appearance .....              | 4 |
| 2 Operating Conditions .....            | 4 |
| 3 Storage Conditions .....              | 4 |
| 4 GPS/BD Antenna Specifications .....   | 4 |
| 5 GPS/BD Amplifier Specifications ..... | 4 |
| 6 Product Photos .....                  | 5 |
| 7 Mechanical Drawings .....             | 5 |
| 8 Contact Information .....             | 7 |

## 1 Product Appearance

|             |              |                 |                |
|-------------|--------------|-----------------|----------------|
| Dimensions  | 48*48*19.5mm | Mounting Method | Adhesive       |
| Weight      | 90 g         | Connector Type  | SMA            |
| Shell Color | Black        | Cable           | RG174, 3meters |

## 2 Operating Conditions

Temperature: -40°C ~ +85°C

Humidity: 95 % ~ 100 %

## 3 Storage Conditions

Temperature: -40°C ~ +85°C

Humidity: 95 % ~ 100 %

## 4 GPS/BD Antenna Specifications

| NO. | Item                                                | Specification                      | Post-Environmental Tolerance* |
|-----|-----------------------------------------------------|------------------------------------|-------------------------------|
| 1   | Receiving Frequency Range (MHz)                     | 1166-1186 (MHz)<br>1555-1610 (MHz) | ±2.5 (MHz)                    |
| 2   | V.S.W.R (at Center Frequency)                       | ≤1.5                               | ±0.5                          |
| 3   | Gain (Zenith, dBi typ, with 70 mm square GND plane) | 3.5                                | ±0.5                          |
| 4   | Axial Ratio (with 70 mm square GND plane)           | 6.0dB                              | ±0.2                          |
| 5   | Polarization                                        | Right-Hand Circular Polarization   | ----                          |
| 6   | Characteristic Impedance (Ω)                        | 50                                 | ----                          |
| 7   | Frequency Temperature Coefficient (ppm/°C)          | 0±10                               | ----                          |

\* Post-Environmental Tolerance refers to allowable deviation after environmental tests.

## 5 GPS/BD Amplifier Specifications

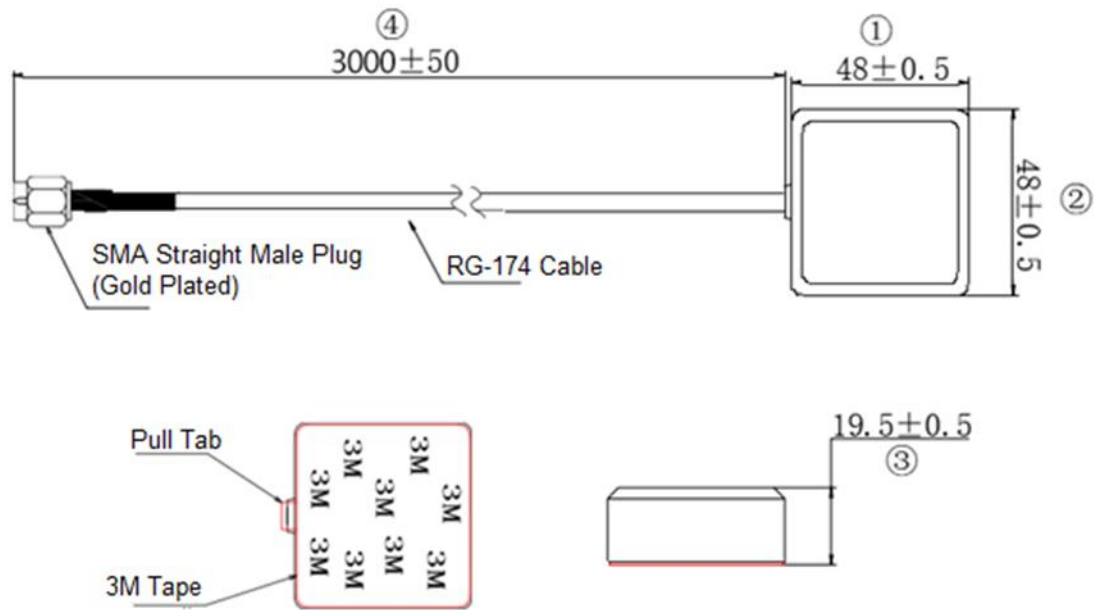
| Item          | Specification                                  |
|---------------|------------------------------------------------|
| LNA Gain (dB) | 28 ± 2 (tunable for specific frequency points) |

|                                                     |                          |           |
|-----------------------------------------------------|--------------------------|-----------|
| Output V.S.W.R                                      | <2.0                     |           |
| Output Impedance ( $\Omega$ )                       | 50                       |           |
| Passband Ripple (dB, 1575.42 $\pm$ 5 MHz, LNA only) | $\pm$ 1.0                |           |
| LNA Output 1 dB Compression Point (dBm, LNA only)   | >-2                      |           |
| Out-of-Band Suppression                             | 1575MHz $\pm$ 20MHz      | 45dBc min |
|                                                     | 1166-1186MHz $\pm$ 10MHz | 42dBc min |
| Supply Voltage (V)                                  | 2.7~3.6                  |           |
| Operating Current (mA)                              | <20                      |           |

## 6 Product Photos



## 7 Mechanical Drawings



Unless otherwise specified:

- $X = \pm 2$  mm
- $X.X = \pm 0.3$  mm
- $X.XX = \pm 0.05$  mm

Unit: mm

## 8 Contact Information

### **Skylab M&C Technology Co., Ltd**

**Address:** 11th Floor, Building 6, Hongchuang Science and Technology Center, Fucheng Street, Longhua District, Shenzhen, Guangdong, China.

**Phone:** 86-0755 8340 8210 ( Sales Support )

**E-Mail:** [sales1@skylab.com.cn](mailto:sales1@skylab.com.cn)

**Website:** [www.skylab.com.cn](http://www.skylab.com.cn) [www.skylabmodule.com](http://www.skylabmodule.com)