

## 12 dBi Pure Antenna

### SBA-U2512P

**SBA-U2512P** is a **12dBi high-gain UHF antenna** designed for RFID applications within the **902–928 MHz** frequency range. With its **pure horizontal polarization**, **rugged aluminum body**, and **weather-resistant IP64 rating**, it offers strong and stable performance for long-range and directional tag reading in both indoor and outdoor environments. The antenna is ideal for use in high-demand RFID setups like logistics, vehicle tracking, and industrial automation.

#### Features and Benefits:

- Frequency Range: 902–928 MHz (UHF)
- High Gain: 12dBi for extended read distance
- Horizontal Polarization for focused, consistent tag detection
- Beamwidth: 40° horizontal and vertical for directional coverage
- VSWR  $\leq 1.3$  for better signal efficiency
- Front-to-Back Ratio  $\geq 25$  minimizes interference from the rear side
- Connector Type: N-type socket
- High durability: Aluminium body, waterproof IP64, wind resistance up to 50m/s
- Wide operating temperature: -20°C to +60°C
- Mounts easily on poles with diameters between 40–80mm
- Lightning protection via DC grounding

#### Applications:

- Vehicle Tracking & Access Control (e.g., gate entry systems)
- Long-Range Inventory Management in warehouses or yards
- Industrial Automation in outdoor and factory settings
- Container and Asset Tracking in shipping/logistics areas
- Outdoor RFID Installations needing stable performance under tough conditions



## SPECIFICATIONS

<b>Physical Parameter</b>	
Dimensions	445mm X 445mm X 42mm
Colour	White
Weight	2.1 Kgs (Excluding Bracket)
Packaging Dimensions	600mm X 480mm X 110 mm
Antenna Gross Weight	3.92 Kgs
Pole Diameter	40-80mm
Material	Aluminium
IP Rating	IP 64
<b>UHF Technical Parameters</b>	
Operating Frequency	860-960 MHz
Gain	Up to 6 dBi
Maximum Wind Resistance	50 m/s
Beam Width	Horizontal: 40°, Vertical: 40°
VSWR	<=1.3
Front Back Ratio	>=25
Polarization	Horizontal
Input Impedance	50 Ω
Maximum Input Power	100 W
Lightening Protection	DC Grounding
Connector Type	N-type Socket
<b>Environmental Parameters</b>	
Operating Temperature	-40°C to +80°C
Storage Temperature	-40°C to +85°C
Working Humidity	5% to 95%RH No condensation

*Soochak Bharat, with its technical expertise in RFID technology, focuses on designing, developing, innovating, and deploying RFID hardware solutions.*

\*Read range is dependent on tag size and design.

\*Soochak Bharat reserves the right to make changes in the above specifications without notice.