

## 12dBi Panel Antenna

### SBA-U2512PN

**SBA-U2512PN** is a high-performance 12dBi vertically polarized UHF panel antenna designed for the 806–960 MHz frequency band. Its wide horizontal beam and narrow vertical spread deliver stable, long-range coverage ideal for RFID and wireless communication applications. Built with a rugged aluminum housing and IP65-rated weather protection, it performs reliably in demanding outdoor environments.

#### Features and Benefits:

- Frequency Range: 806–960 MHz
- Gain: 12dBi for extended directional coverage
- Vertical Polarization for precise and consistent signal alignment
- Beamwidth: 70° horizontal / 30° vertical
- VSWR  $\leq 1.5$  for efficient signal transmission
- Front-to-Back Ratio  $\geq 20$  minimizes rear interference
- Connector Type: N-type socket
- Max Input Power: 100W
- Durable aluminum construction with IP65 waterproof rating
- Operating Temperature: -20°C to +60°C
- DC grounding for integrated lightning protection
- Mounts on poles ( $\Phi 40$ –100mm) with wind resistance up to 50m/s

#### Applications:

- Outdoor long-range RFID and IoT gateways
- Wireless communication and telemetry systems
- Vehicle tracking at access control points
- Industrial area network extension
- Infrastructure and smart city deployments



## SPECIFICATIONS

### **Physical Parameter**

Dimensions	600mm X 280mm X 80mm
Colour	White/Black/Grey
Weight	6.2 Kgs (Gross)
Packaging Dimensions	650mm X 345mm X 220mm
Material	Aluminium
Pole Diameter	φ40-100mm
Waterproof Rating	IP65
Maximum Wind Resistance	50 m/s

### **UHF Technical Parameters**

Operating Frequency	806-960 MHz
Gain	Up to 12 dBi
Beam Width	Horizontal: 70°, Vertical: 30°
VSWR	≤1.5
Front Back Ratio	≥20
Polarization	Vertical
Input Impedance	50 Ω
Maximum Input Power	100 W
Lightening Protection	DC Grounding
Connector Type	N-Type Socket

### **Environmental Parameters**

Operating Temperature	-20°C to +60°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.