

3 dBi PCB Antenna

SBA-U2503PCB

SBA-U2503PCB is a compact **UHF PCB antenna** designed for RFID applications operating in the **902–928 MHz** frequency band. With a **3dBi gain**, **circular polarization**, and lightweight PCB construction, it offers reliable tag detection in close to mid-range setups. Its wide beam angle and small form factor make it a great fit for embedded or space-limited RFID projects such as smart cabinets, desktop systems, and kiosks.

Features and Benefits:

- Frequency Range: 902–928 MHz (UHF)
- 3dBi gain for short to moderate read ranges
- Circular polarization for better tag reading at different angles
- Wide beam coverage: 100° horizontal and 85° vertical
- Low VSWR (≤ 1.5) for efficient signal transfer
- Lightweight (0.3 kg) and compact
- SMA socket for standard coaxial connection
- Made from durable PCB material with a black radome
- Simple to integrate into custom devices or small enclosures
- Works in temperatures from -20°C to +60°C



Applications:

- Smart Cabinets & Drawers
- Retail Shelving and Inventory Displays
- Kiosks & Self-Checkout Systems
- Embedded RFID Devices
- Desktop RFID Readers
- Compact Access Control Units

SPECIFICATIONS

Physical Parameter

Dimensions	120mm X 110mm X 10mm
Colour	Black
Weight	0.5 Kgs
Radome Material	PCB

UHF Technical Parameters

Operating Frequency	902-928 MHz
VSWR	<=1.5
Gain	Up to 3 dBi
Polarization	Circular
Input Impedance	50 Ω
Connector Type	SMA Socket
Maximum Input Power	100 W
Bandwidth	Horizontal: 100° Vertical: 85°

Environmental Parameters

Operating Temperature	-20°C to +60°C
Storage Temperature	-20°C to +65°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.