

1. General Information

1.1 Product Identification

Product Name: Bluetooth Secondary Antenna (BT Ant2)

Model No.: ANT-BT2-01

Application: 2.4 GHz Bluetooth (BT5.x / BLE) for automotive display mainboard

Connection: Connect to BT(Ant2) ANT port on main control PCB via custom wiring harness

1.2 Antenna Manufacturer

Company Name: SThird Floor No.C, Second Floor B209 and B211, HANG TIAN KE GONG YUAN, NO.8 Min Huan road, Fu Kang community, Longhua district, shenzhen city, Guangdong Province, China

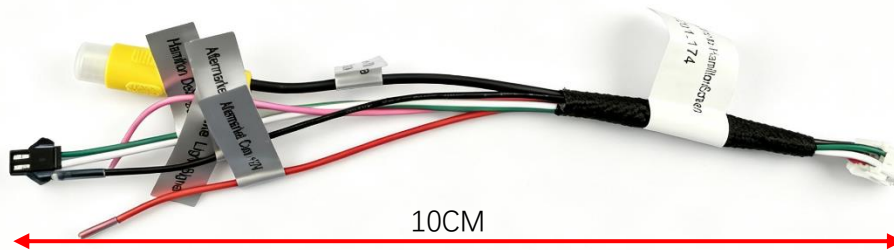
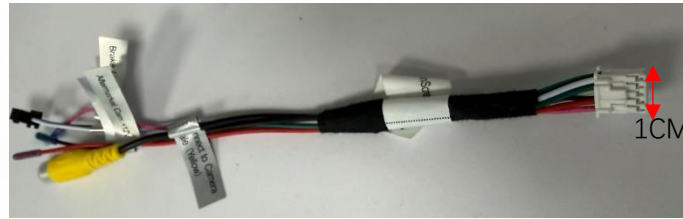
Contact Department: RF Engineering Department

2. Electrical Specifications

Parameter	Spec Value	Remarks
Operating Frequency Range	2402 MHz ~ 2480 MHz	ISM 2.4 GHz Bluetooth Band
Nominal Impedance	50 Ω	
VSWR	$\leq 2.0:1$ within operating band	
Polarization	Linear, Omni-directional	
Peak Antenna Gain	1.95 dBi	Free space measurement
Spherical Average Gain	-1.5 ~ 0.5 dBi	3D anechoic chamber test
Radiation Efficiency	$\geq 45\%$	Free space condition
Maximum RF Input Power	1 W (Continuous)	
Cable Type	Single-core shielded RF wire	Matched with assembly harness

3. Cable specifications (Unit: mm)

1. Antenna radiator length: 32 ± 1 mm
2. RF cable length for antenna element: 140 ± 5 mm
3. Cable outer diameter: 1.3 mm
4. Total length from PCB connector to antenna radiator: 155 ± 5 mm
5. Operating temperature range: $-40\text{ }^{\circ}\text{C} \sim +85\text{ }^{\circ}\text{C}$
6. Storage temperature range: $-45\text{ }^{\circ}\text{C} \sim +90\text{ }^{\circ}\text{C}$



4. Gain/Radiation Efficiency)

Frequency(MHz)	Max Gain(dBi)	Efficiency(%)
2400	1.14	34.04
2450	1.95	52.72
2500	1.38	41.98

5. 3D Radiation pattern

