


DOC. NO	C-070501	<b>ANTENNA SPECIFICATIONS</b>	REV. NO	0
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Product Name : 27MHz Band 1/4λ Monole Antenna

Model Name: ST-50N

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Release				
Sign.	Written	Checked	Checked	Approved
	J.R.Park	/	/	
Date	2007-5-7			

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### 1. Descriptions

This monopole Antenna has the 1/4 wavelength helical coil elements on the plastic bobbin covered TPE, designed for 27MHz band wireless communication unit.

### 2. Application

Hand Held    Fixed    Mobile    Out Door    In Door    Others

### 3. Antenna Shape

See attached

### 4. Electrical Performance

#### 4.1 Frequency Range

27 MHz Band (Fc=26.75MHz)

#### 4.2 Impedance

Nominal Value      50 Ohm

#### 4.3 V.S.W.R

Less than 1 : 7.0 (at Fc)

#### 4.4 Antenna Radiation Pattern

Omni-Directional

#### 4.5 Antenna Polarization

Vertical

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#### 4.6 Antenna Gain ( dBi )

Unity ( -28dBi)

### 5. Mechanical Specifications

#### 5.1 Element

Material	φ0.10 Cu
Finish	UEW
Electrical Length	1/4 Wavelength

#### 5.2 Connector

Type	Stud (M6x0.75)
Material	Brass
Finish	Ni-plating

#### 5.3 Bobbin

Material	PA 66
Finish	-

#### 5.4 Sleeve

Material	TPE
Finish	Black

#### 5.5 Antenna total length

See Attached

#### 5.6 Antenna Weight

11 gram

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## 6. Environmental Resistance Performance

### 6.1 Operating Temperature

- 30°C ~ 70°C

### 6.2 Storage Temperature

- 40°C ~ 80°C

### 6.3 Humidity

95% RH / 50°C

## 7. Attached

1. Antenna Specifications Drawing
2. Antenna Performance Data
  - V.S.W.R

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**[Attached] 1. Antenna Specifications Drawing**

Technical drawing of an antenna assembly. The drawing shows a cross-section of the antenna with four callouts: 1 (Sleeve), 2 (Coil), 3 (Bobbin), and 4 (STUD). Dimensions are provided: 13.0 (width of sleeve), 5.6 (height of sleeve), 50 (total length), 6.0 (width of bobbin), and M6x0.75 (thread specification). A scale of 1:1 is indicated.

Title	Rev.No	DWG. No.	Tolerance	Unnoted	Scale	Unit
ST-50	0	0001	x=0.2 x.xx=0.1		N/S	mm
File name	Date	Designed	x.xx=0.05	Checked	Approved-date	
st50-Ass'y	070417	J.R.Park		한승기		

No	Title/Name	Material	Finish/Color	Remarks
4	Sleeve	TPE	Black	
3	Coil	Cu	UEW	
2	Bobbin	PBT		
1	STUD	Brass	Ni-plating	

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## 2. Antenna Performance Data

( Test Equipment : HP-8753ES )

- . VSWR

