



BITEL CO., LTD.

# APPROVAL SHEET


UC200			
NO	MODEL	FREQUENCY	
1	UC200	Bluetooth	2402 ~ 2484 MHz

SUPPLIER			CUSTOMER		
Engineer	Review	Approved	Engineer	Review	Approved
					



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## HISTORY SHEET

Item	PATTERN ANTENNA	Developed by	Taehyeon. Nam	
Part Name	UC200	Director		
Rev. No.	Date	Description		Etc.
0	2023-11-03	Initial Version		

# ANTENNA SPECIFICATION

1. MODEL: UC200

2. APPLICATION:

This specification is provided for Bluetooth ANTENNA.

3 ANTENNA used condition

Portable  Fixing  Movement  Out-door  In-door  Etc( )

4. ANTENNA Drawing

#3. Attached : Drawing paper

5. Electrical specification and performance

Satisfied next data with real used or similar environment conditions.

No.	ELECTRICAL DATA	SPECIFICATIONS		REMARK
5. 1	FREQUENCY RANGE	2402 ~ 2484 MHz		
5. 2	IMPEDANCE	50 Ω NOMINAL		
5. 3	V. S. W. R	2402~2484 MHz	Less than 2.0 : 1	#1. Attached
5. 4	PEAK GAIN(Min)	2402~2484 MHz	1.4 dBi	#2. Attached
5. 5	RADIATION PATTERN	OMNI - DIRECTIONAL		
5. 6	POLARIZATION	LINEAR		

6. Hardware specification and mechanical

No.	MECHANICAL	SPECIFICATIONS	REMARK
6. 1	Dimension	10.5 X 9.5 X 1.0	

7. SINUSOIDAL VIBRATION

Vibration Frequencies : 5- 55 Hz (1 cycle)  
Sweep Rate : 1 cycle/min  
Maximum Amplitude : A - 1 mm  
Maximum Acceleration : 2 g

Measuring method

Antenna is combined in the test equipment.

The vibration is done X and Y direction (left, right, up and down) according to below image.

It continued for 2 hours each direction.

8. OPERATING TEMPERATURE

Temperature : - 30℃ / +70℃

Demands : Set Antenna and Cable for 48 hours each temperature.

No visual and mechanical changes.

The fitting and mold will be unchanged mechanically during the test.

The antenna shall satisfy the electrical data

9. HUMIDITY

Condition : 90% ~ 95% / +40℃

Measuring method

Antenna is placed in climatic chamber for 48 hours.

Antenna is taken out from the chamber and measured after another 24 hours in room temperature

Demands : No visual and mechanical changes.

The fitting and mold will be unchanged mechanically during the test.

The antenna shall satisfy the electrical data.

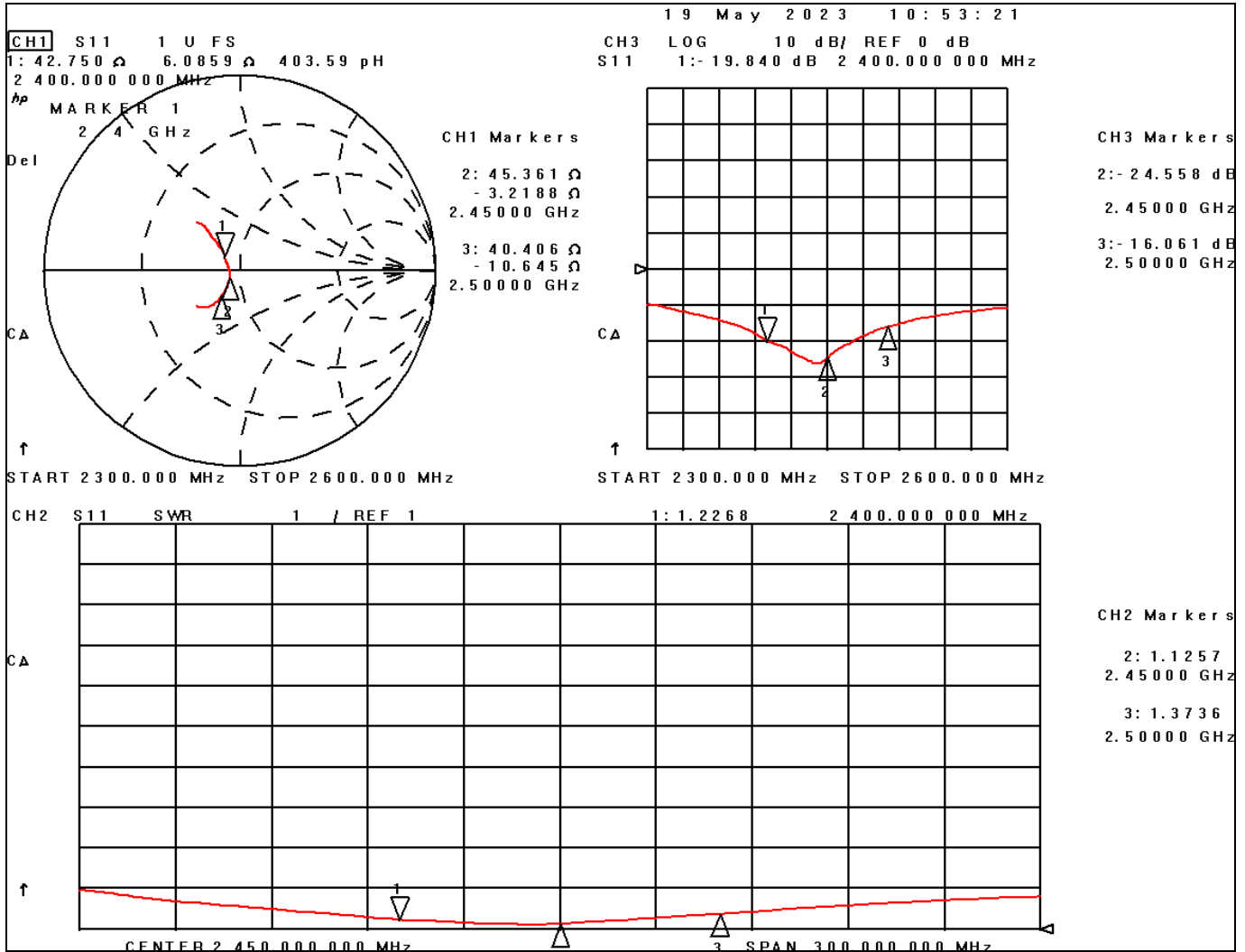
10. TEST and Q/C

This specification is according to fixed demands and suitable Hanwool technology Q/C provision.

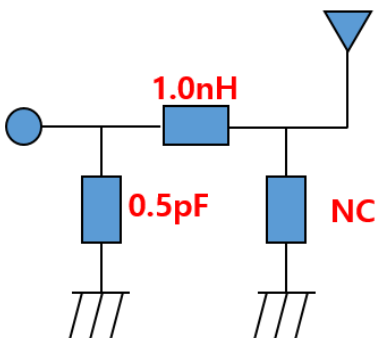
But it is possible to skip No. 7~9 demands, after consultation with buyer.

DQ No.	HW-231103-70	Modify No.		Write	Taehyeon. Nam
Supply to	BITEL CO., LTD.	Date	2023-11-03	Approval	Chang-gi. Nam

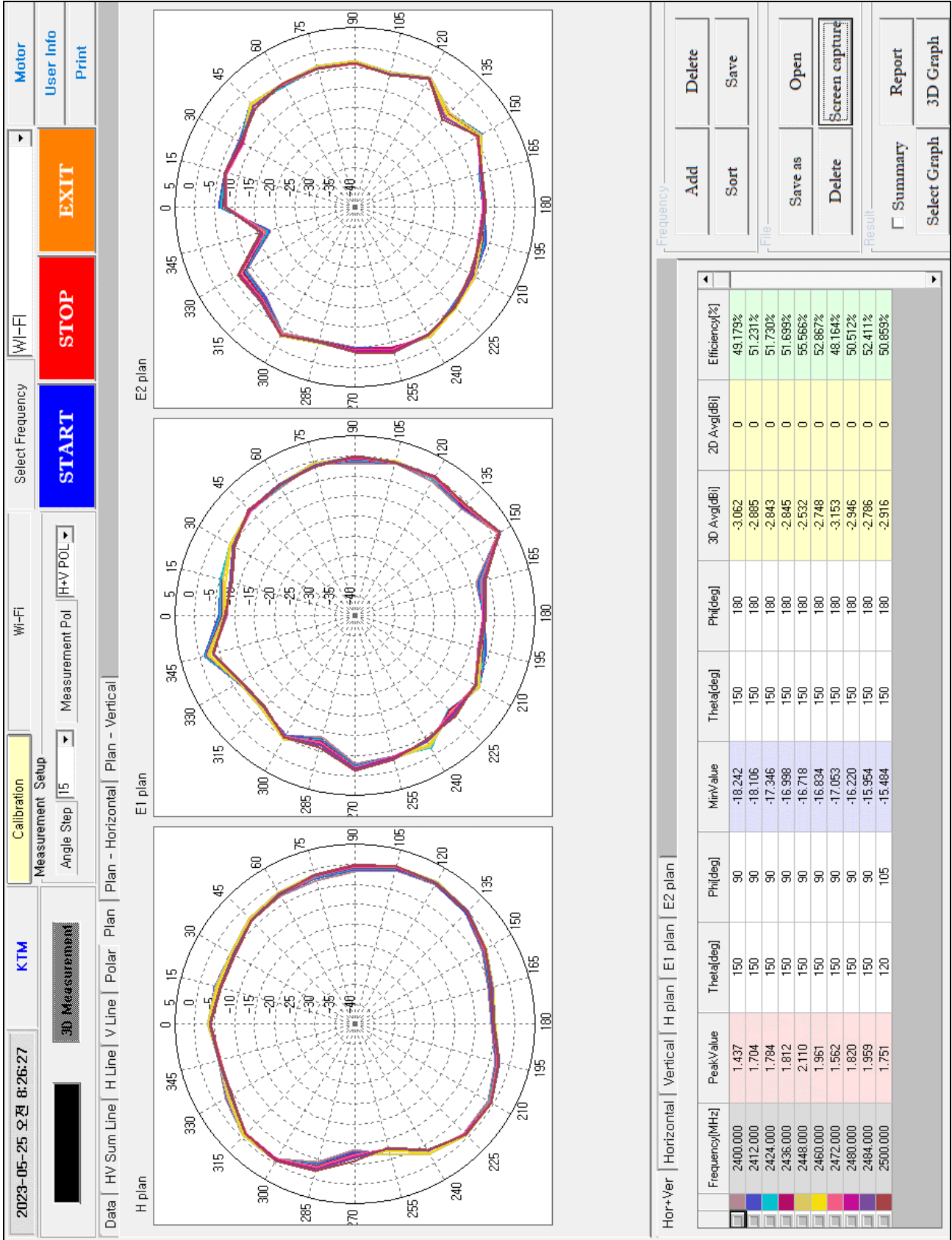
- #1. Attached : VSWR



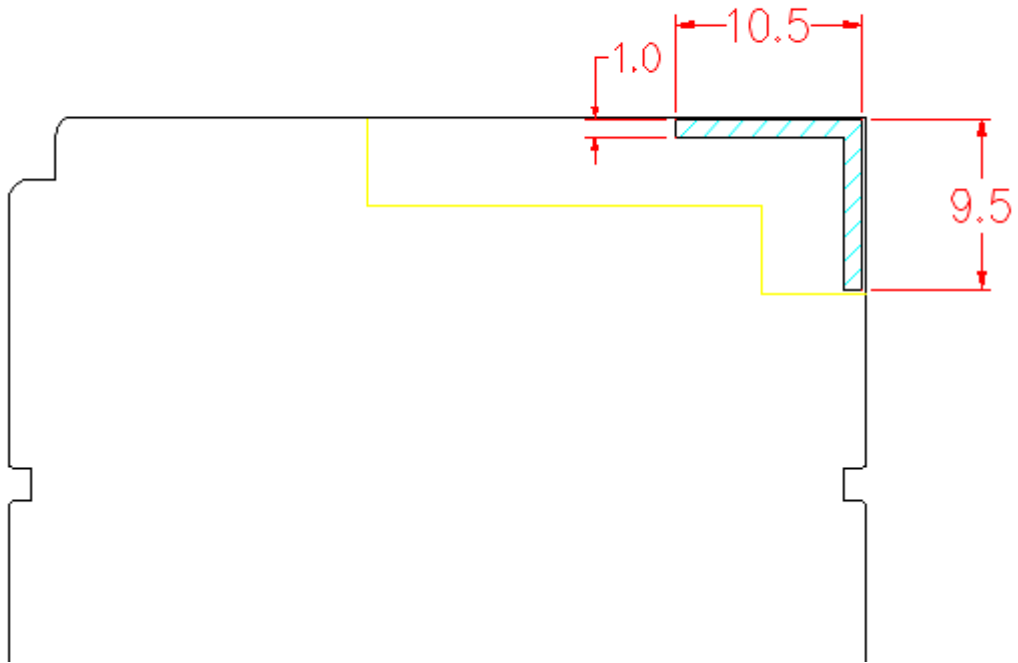
- Antenna Matching



- #2. Attached : RADIATION PATTERN(GAIN)



- #3. Attached : Drawing paper



# Specifications

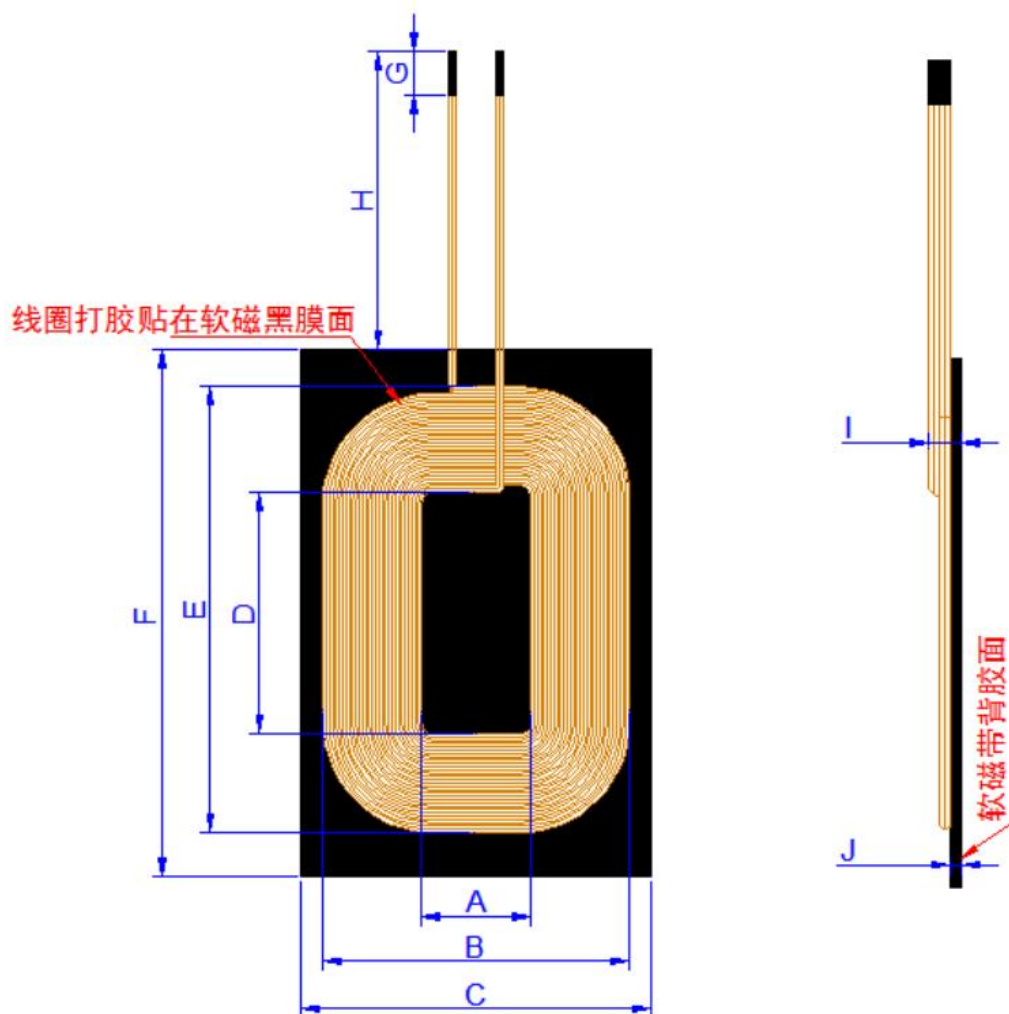
Reference Designs

Version1.0.0

part 2 of 4

Model Number	Rx coil 48*32	CustomerP/N	
		SupplierP/N	

## 1. Appearance Size: mm



A	10±0.5
B	28.5±1
C	32±1
D	22±0.5
E	40.5±1
F	48±1
G	3.5±1.5
H	30±2
I	1.5MAX
J	0.4±0.1



# Specifications

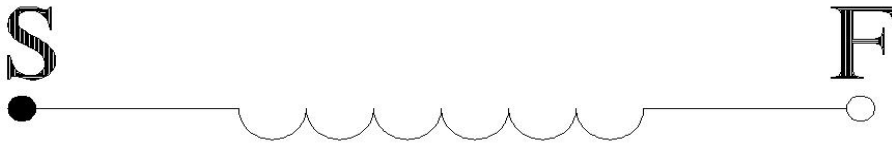


Version1.0.0

Reference Designs

## 2. Schematic Diagram:

part 3 of 4



## 3. Winding Parameters:

Winding	Start	Finish	Turns	Line Diameter	Winding Way	Winding Direction	Layer&Circle
	S	F	17	0.25*2P	Close winding		

## 4. Electrical Characteristics:

Item	Terminal	Test Conditions	Test Instrument	Parameter	Unit	Numerical Value
Inductance	S-F	100KHz/ 1.00V	3250	Inductance@1 00KHz/1V	$\mu$ H	16 $\mu$ H-18 $\mu$ H
Q Factor	S-F	100KHz/ 1.00V	3250	Q@100KHz/1V		10 REF
Resistance	S-F	100KHz/ 1.00V	3250	RS@100KHz/1 V	m $\Omega$	400 REF