

# Antenna Model: ATH-TWX7

FIC RnD

V1

26 May 2023

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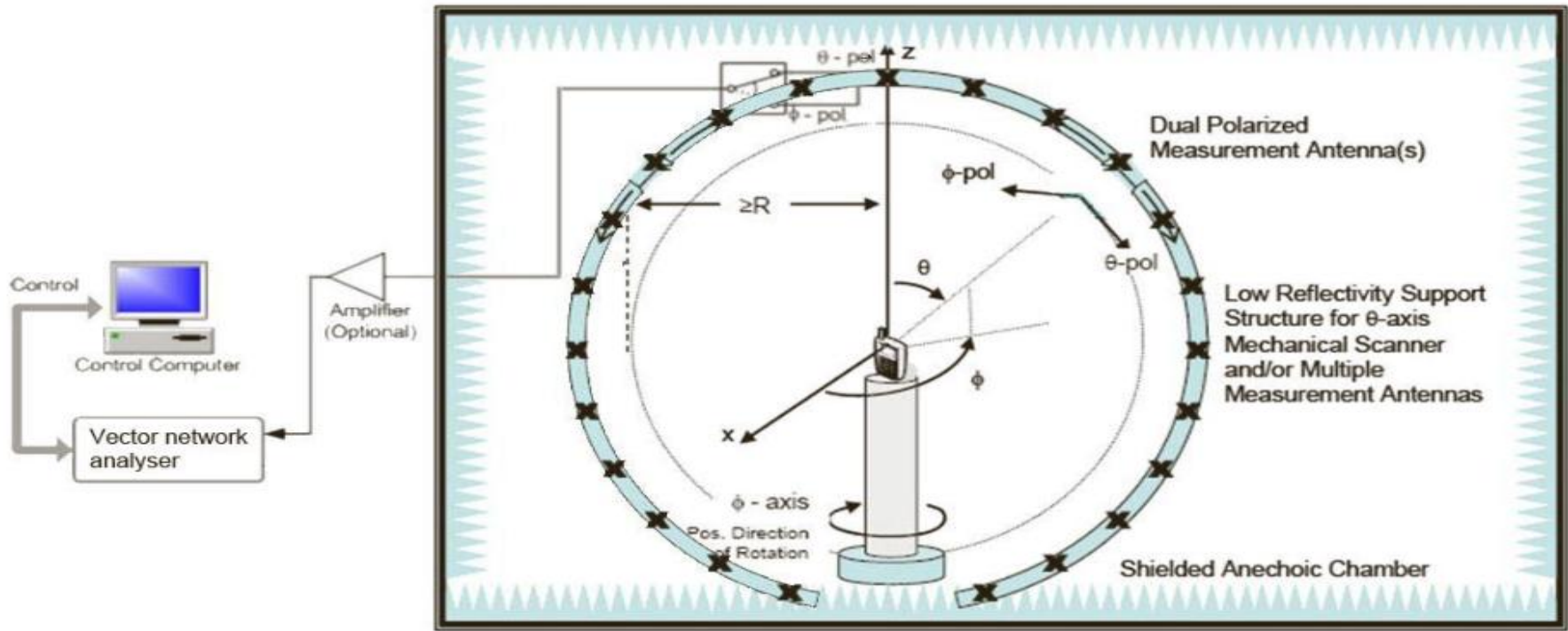
# Characteristics:

1. Antenna type: FPC Monopole
2. Gain and efficiency
3. Reflection coefficient
4. 2D antenna pattern at CH0, CH39 and CH78

# Test Environment Condition

- 1) Temperature: 18-30°C
- 2) Relative Humidity: 45-65%

Test Setup:



# Test environment



# EUT

## L CH

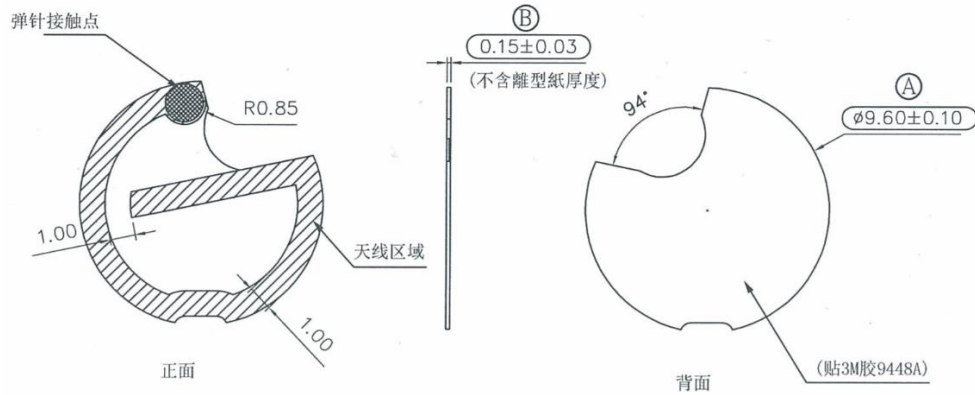


## R CH

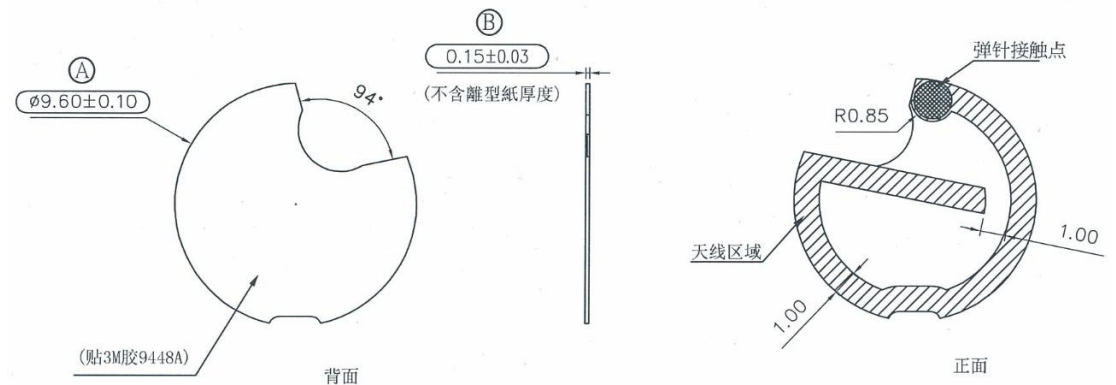


# Antenna size

## L CH



## R CH





# Gain and efficiency

## L CH

## R CH

Efficiency:

L-Free			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency
2400	-2.2	-6.7	21.4%
2410	-2.1	-6.7	21.3%
2420	-2.3	-6.8	20.7%
2430	-2.7	-7.3	18.9%
2440	-3.2	-7.8	16.8%
2450	-3.6	-8.0	15.7%
2460	-4.1	-8.5	14.1%
2470	-4.3	-8.7	13.4%
2480	-4.5	-9.0	12.7%
Average value	-3.2	-7.7	17.2%

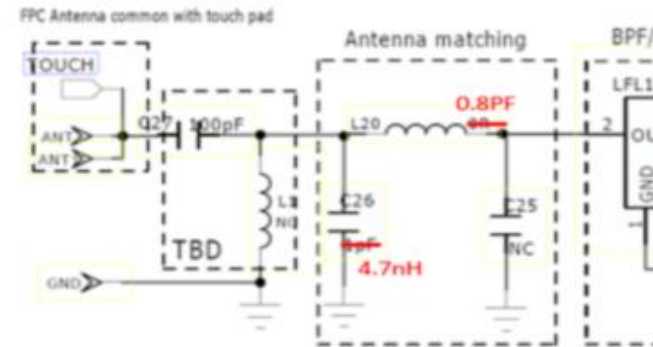
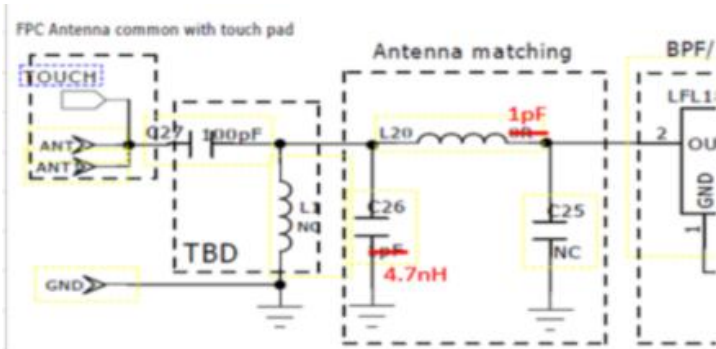
Efficiency:

R-Free			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	-2.5	-6.4	23.1%
2410	-2.6	-6.5	22.5%
2420	-2.6	-6.6	21.8%
2430	-3.0	-7.0	19.9%
2440	-3.5	-7.5	17.8%
2450	-3.8	-7.8	16.6%
2460	-4.3	-8.3	14.8%
2470	-4.5	-8.5	14.2%
2480	-4.5	-8.7	13.6%
Average value	-3.5	-7.5	18.2%

# Reflection coefficient

L CH

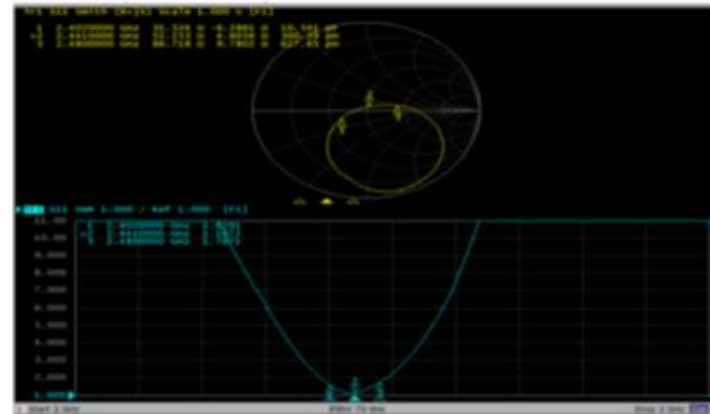
R CH



自由空間



自由空間

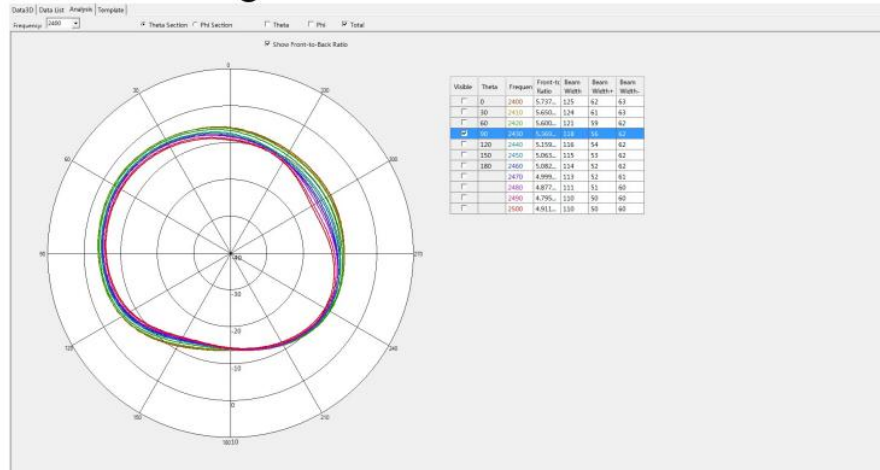




# Passive 2D antenna pattern

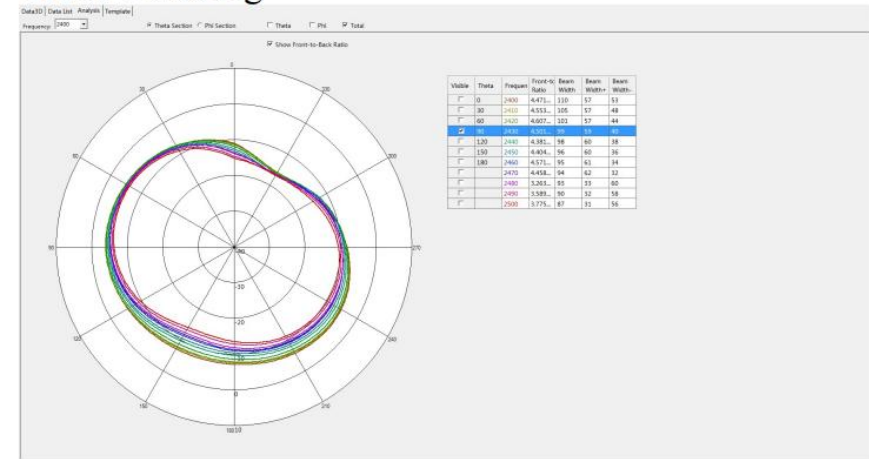
## L CH

Theta=90.00deg

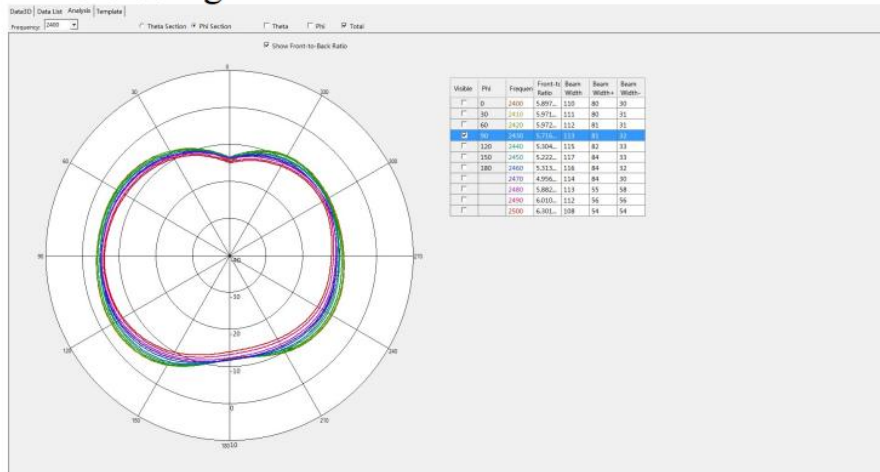


## R CH

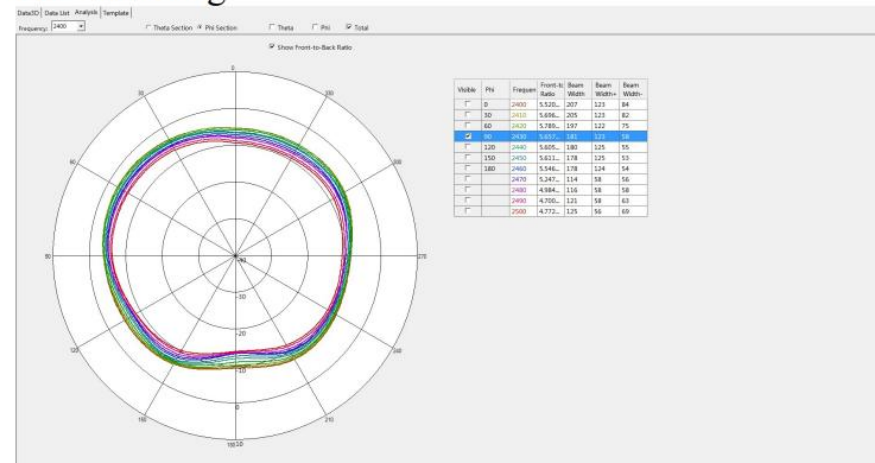
Theta=90.00deg



## Phi=90.00deg



## Phi=90.00deg

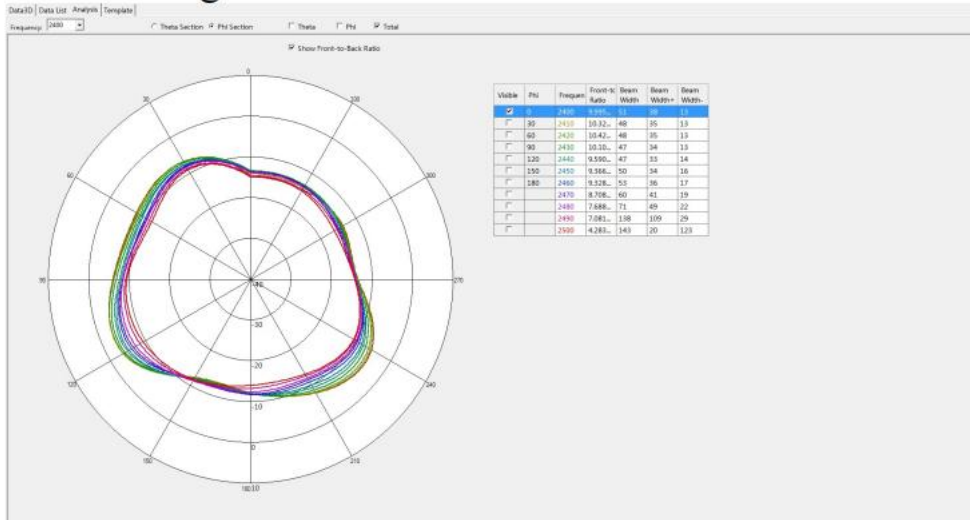


## Passive 2D antenna pattern

# L CH

# R CH

Phi=0.00deg



Phi=0.00deg

