



**EU-SK109&US-SK109&EU-OSK109&US-  
OSK109&EU-SK110&US-SK110**  
**Antenna test report**  
**Antenna model: 8720CMF PCB antenna**

GD Midea Air-Conditioning Equipment Co., Ltd.& Realtek Semiconductor Corp.  
2022.12

# antenna test report

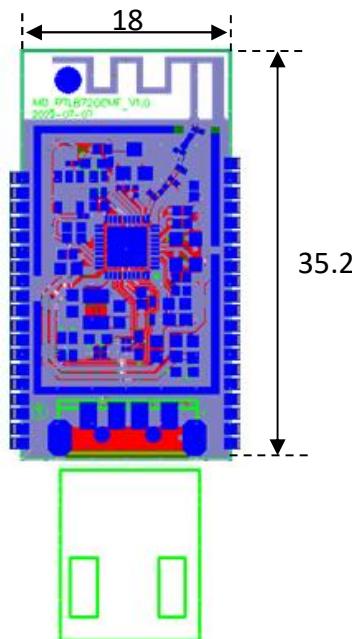
- **Antenna manufacturer**

Name: GD Midea Air-Conditioning Equipment Co., Ltd.

Address : Lingang Road, Beijiao, 528311 Shunde, Foshan, Guangdong,  
PEOPLE'S REPUBLIC OF CHINA

- **Antenna structure**

PCB onboard antenna:17.5mm\*3.8mm



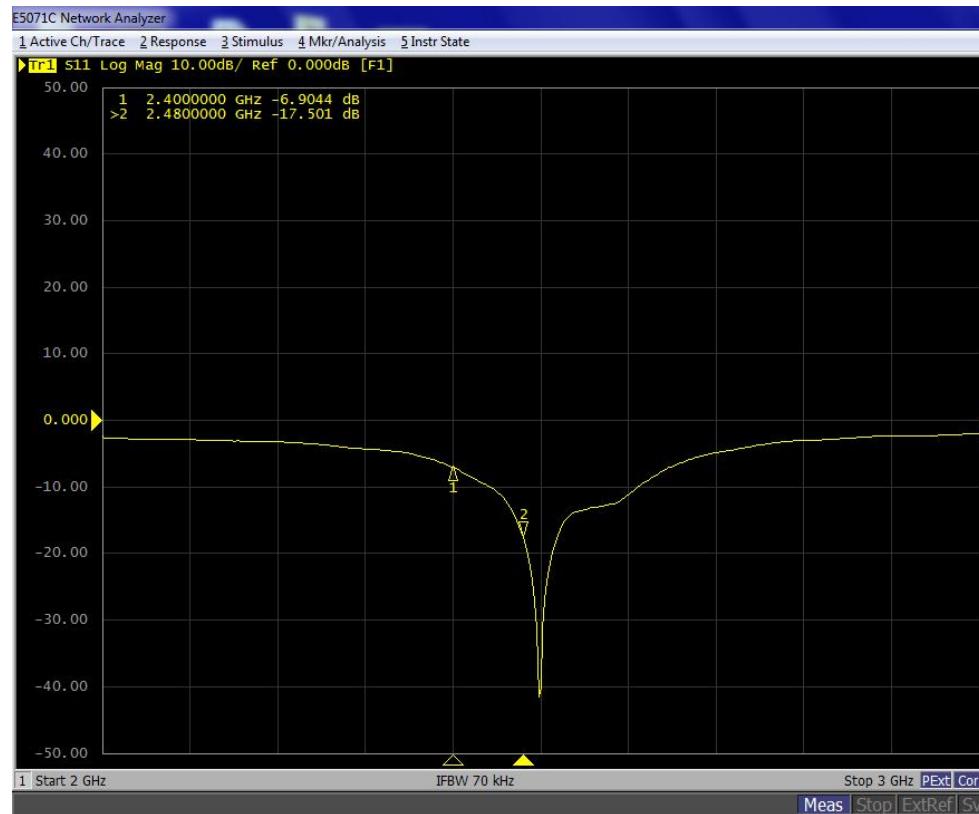
# antenna test report

## ■ Measurement Setup



# antenna test report

## ■ Return loss

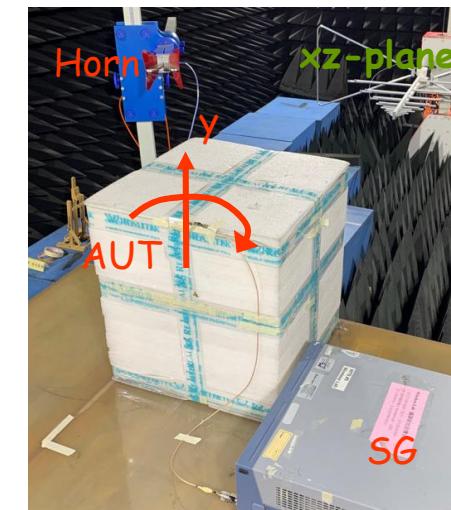
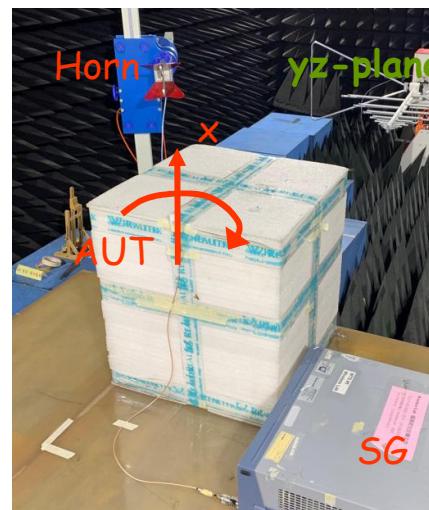
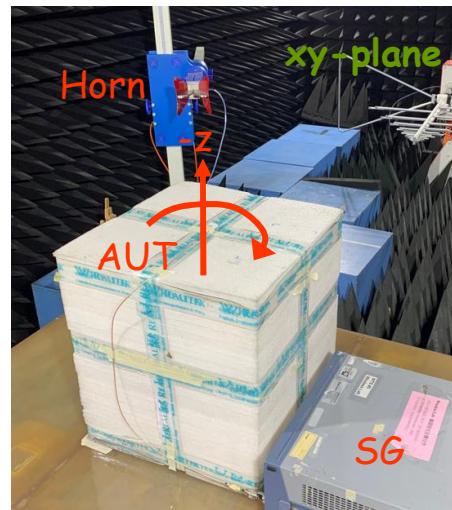
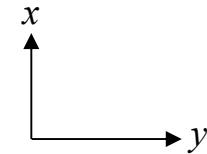


# antenna test report



## • Radiation Patterns

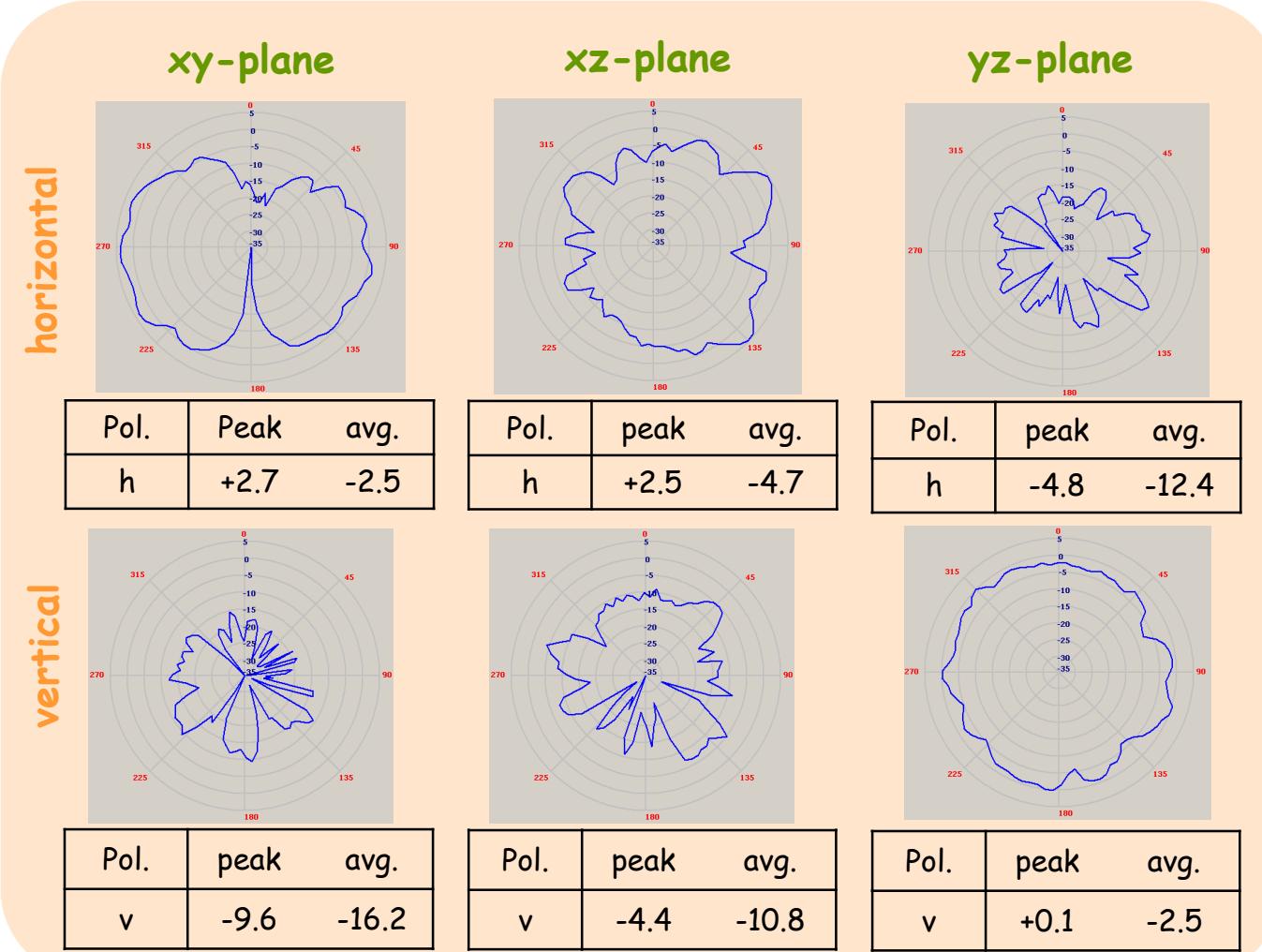
- Frequency : 2400MHz, 2450MHz and 2480MHz
- Test plane : xy-plane, xz-plane and yz-plane
- Input power : SG 0dBm
- Place: RTK 4F chamber
- Horn h: horizontal polarization
- Horn v: vertical polarization



# antenna test report



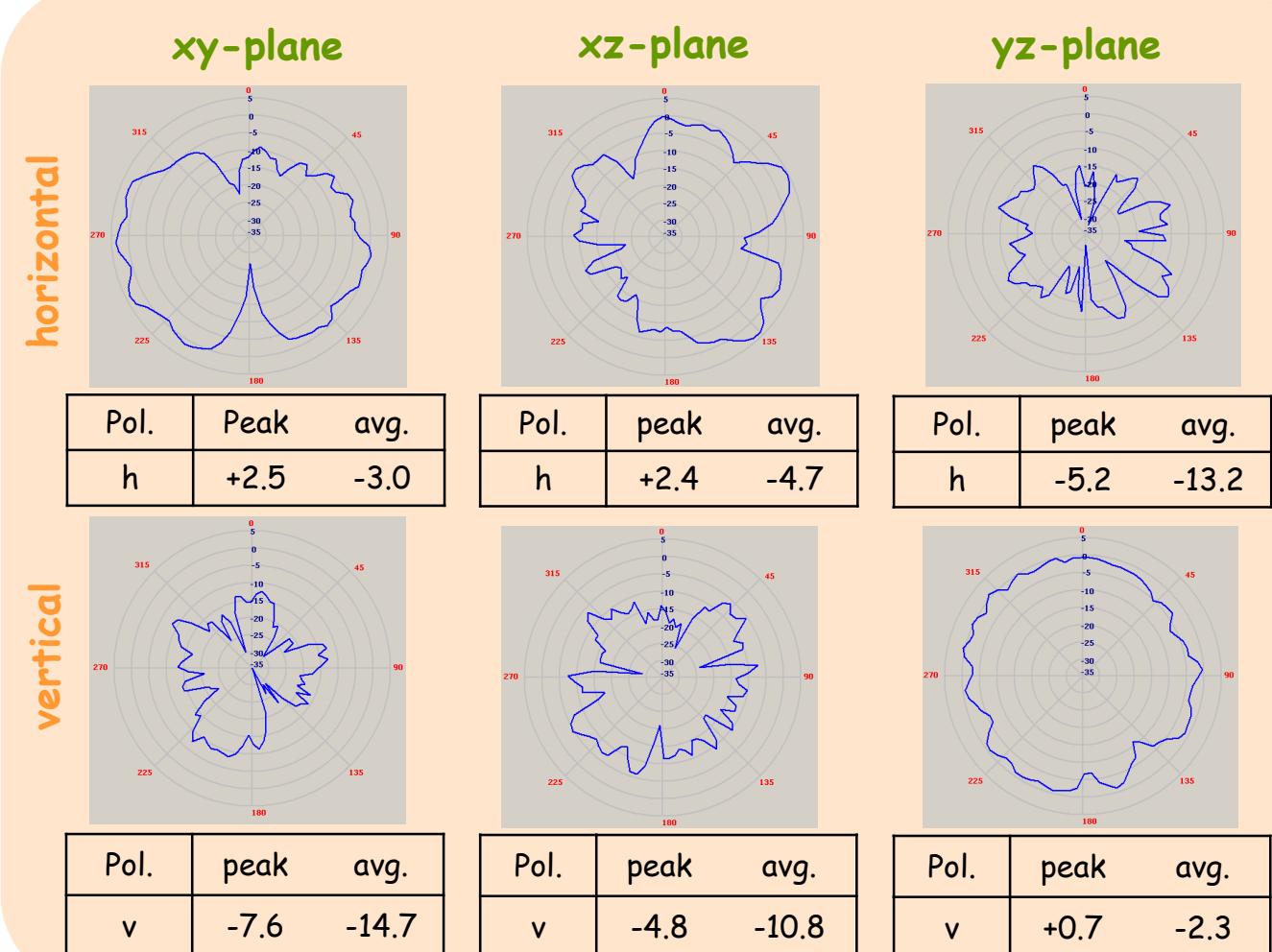
## • Radiation Patterns — 2400MHz



# antenna test report



## • Radiation Patterns — 2450MHz



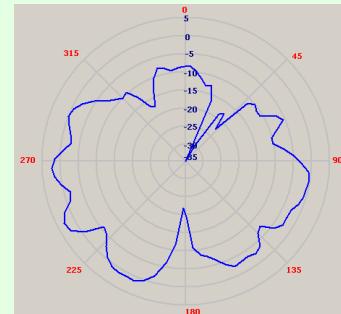
# antenna test report



## • Radiation Patterns — 2480MHz

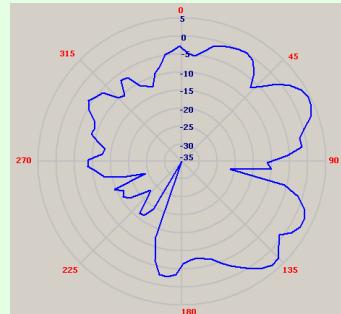
horizontal

xy-plane



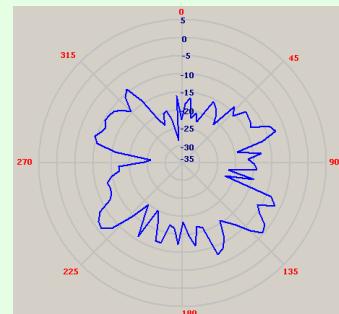
Pol.	Peak	avg.
h	+2.7	-3.5

xz-plane



Pol.	peak	avg.
h	+2.2	-4.9

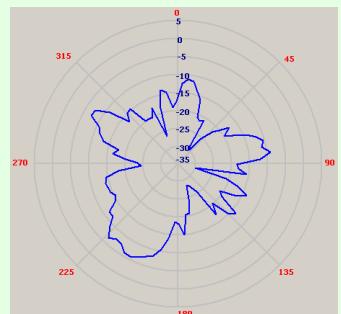
yz-plane



Pol.	peak	avg.
h	-5.5	-12.4

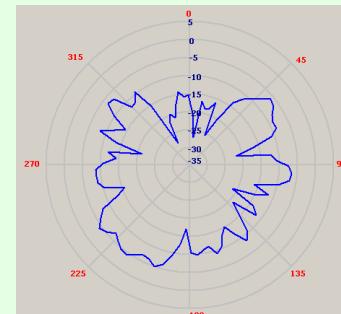
vertical

xy-plane



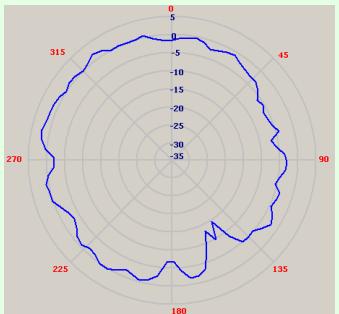
Pol.	peak	avg.
v	-6.1	-13.3

xz-plane



Pol.	peak	avg.
v	-4.4	-10.1

yz-plane



Pol.	peak	avg.
v	+1.9	-1.8

# antenna test report



- Antenna gain and efficiency

	2400MHz													
Plane	xy-plane				xz-plane				yz-plane				Eff.	
Pol.	h		v		h		v		h		v			
Gain	peak	avg.	peak	avg.	peak	avg.	peak	avg.	peak	avg.	peak	avg.		
	+2.7	-2.5	-9.6	-16.2	+2.5	-4.7	-4.4	-10.8	-4.8	-12.4	+0.1	-2.5	54	

	2450MHz													
Plane	xy-plane				xz-plane				yz-plane				Eff.	
Pol.	h		v		h		v		h		v			
Gain	peak	avg.	peak	avg.	peak	avg.	peak	avg.	peak	avg.	peak	avg.		
	+2.5	-3.0	-7.6	-14.7	+2.4	-4.7	-4.8	-10.8	-5.2	-13.2	+0.7	-2.3	53	

	2480MHz													
Plane	xy-plane				xz-plane				yz-plane				Eff.	
Pol.	h		v		h		v		h		v			
Gain	peak	avg.	peak	avg.	peak	avg.	peak	avg.	peak	avg.	peak	avg.		
	+2.7	-3.5	-6.1	-13.3	+2.2	-4.9	-4.4	-10.1	-5.5	-12.4	+1.9	-1.8	55	



谢谢