



[PKE8720DF-A00-F10] module antenna test report

Jeany Ling

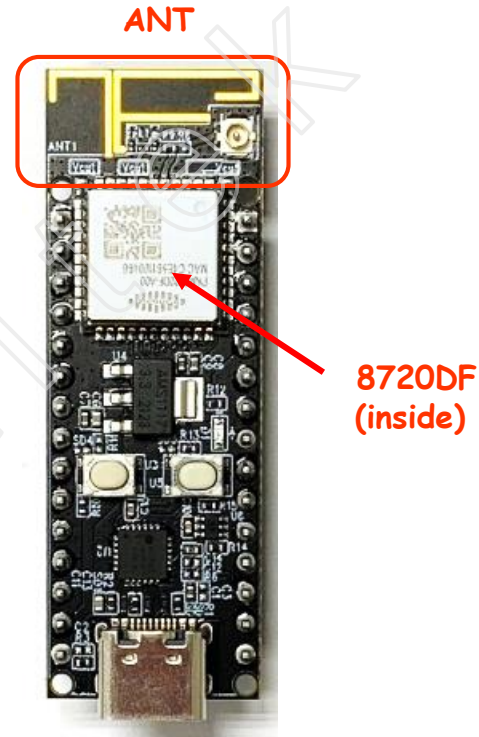
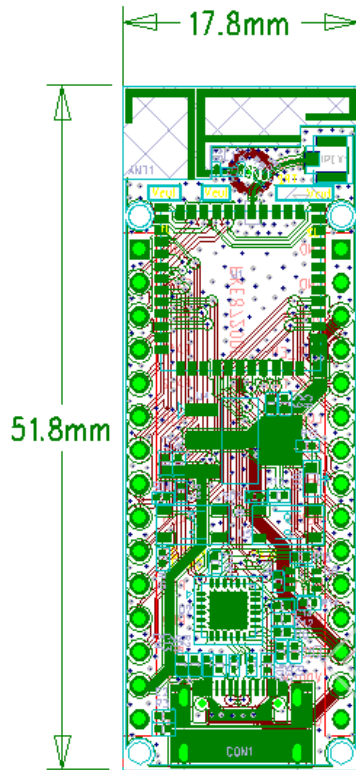
Nov. 23, 2022





[PKE8720DF] module antenna test report

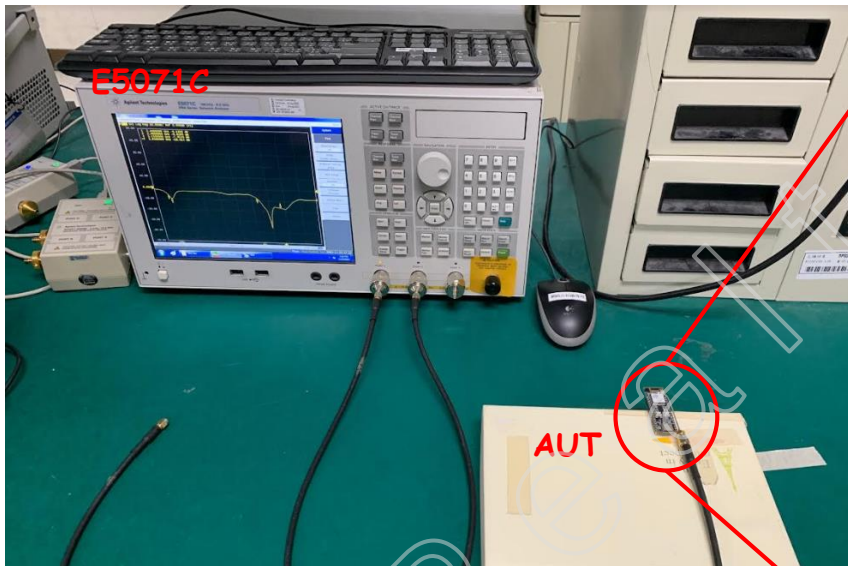
- Antenna structure
- Photo



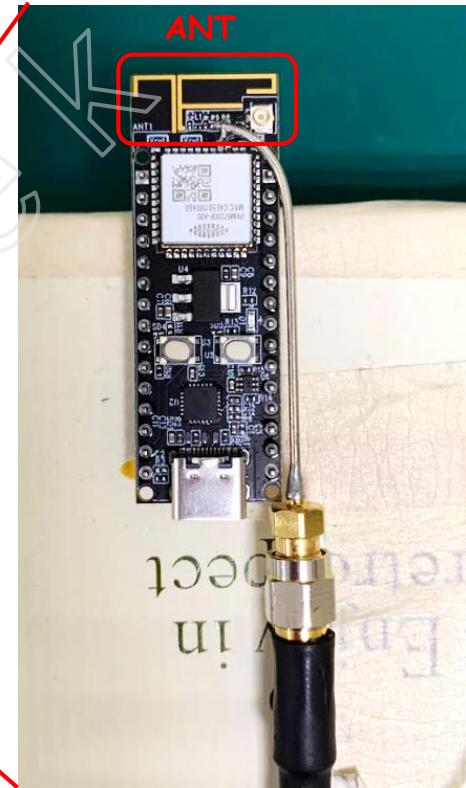


[Gree][8720DF] module antenna test report

- Setup Environment



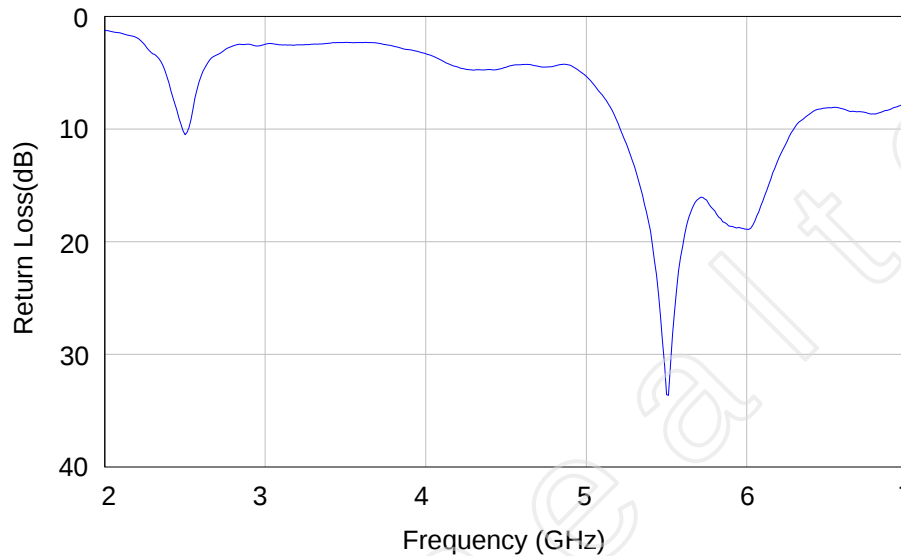
@RTK Lab





[PKE8720DF] module antenna test report

- Return Loss



* C4=C5=NC, L1=0ohm

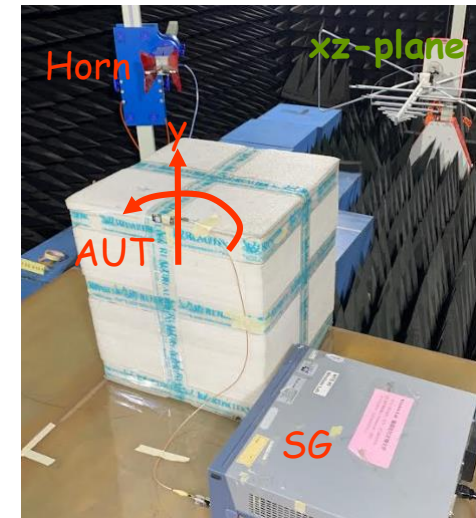
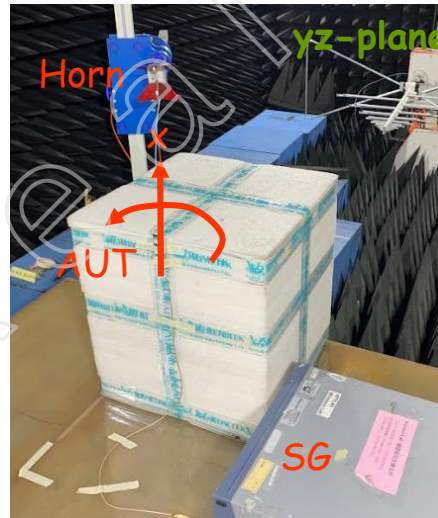
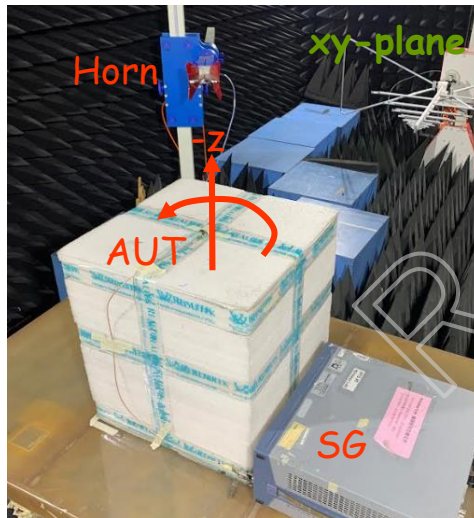
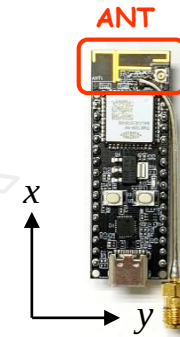




[PKE8720DF] module antenna test report

• Radiation Patterns

- Frequency : 2400MHz, 2450MHz, 2480MHz, 5150MHz, 5500MHz, 5850MHz and 5925MHz
- 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



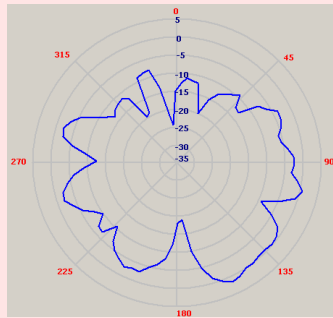


[PKE8720DF] module antenna test report

- Radiation Patterns – 2400 MHz

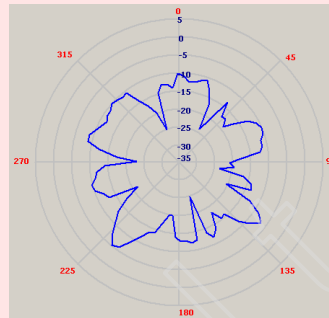
horizontal

xy-plane



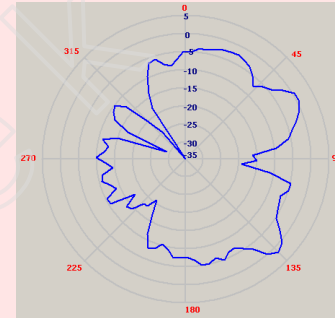
Pol.	Peak	avg.
h	+1.8	-4.8

yz-plane



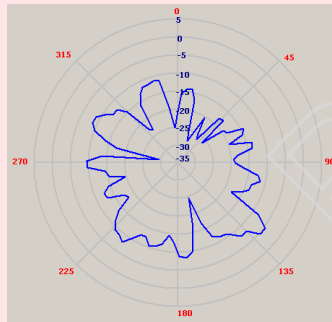
Pol.	peak	avg.
h	-5.5	-12.4

xz-plane

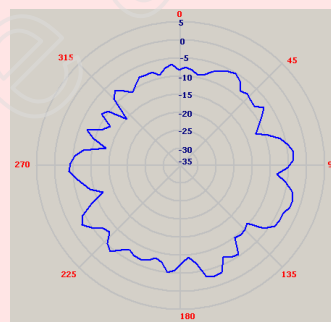


Pol.	peak	avg.
h	+1.4	-6.1

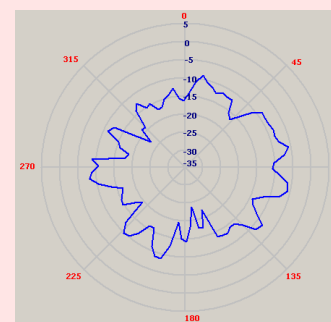
vertical



Pol.	peak	avg.
v	-4.8	-12.6



Pol.	peak	avg.
v	-2.5	-6.7



Pol.	peak	avg.
v	-5.8	-11.8



REALTEK

High Performance · Low Power

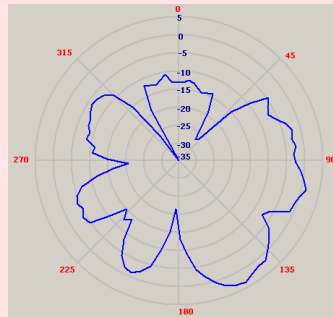


[PKE8720DF] module antenna test report

- Radiation Patterns – 2450 MHz

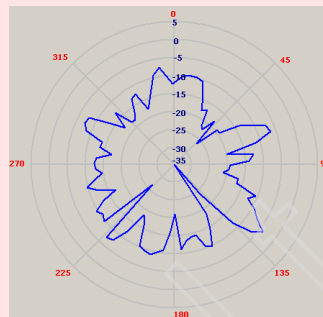
horizontal

xy-plane



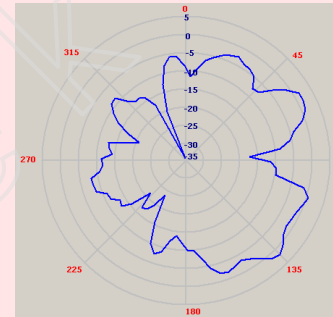
Pol.	Peak	avg.
h	+3.5	-4.4

yz-plane



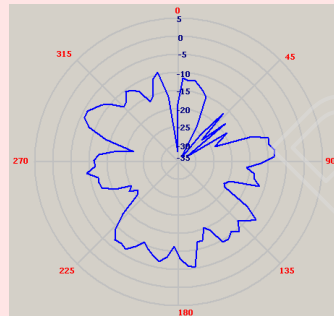
Pol.	peak	avg.
h	-4.2	-11.8

xz-plane

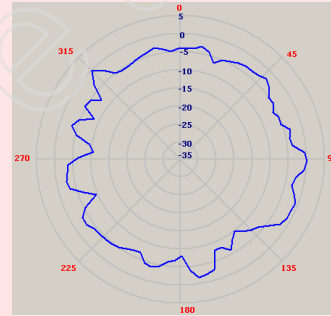


Pol.	peak	avg.
h	+1.7	-5.2

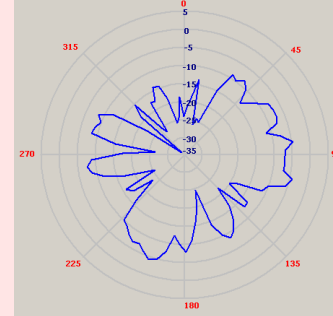
vertical



Pol.	peak	avg.
v	-5.4	-11.3



Pol.	peak	avg.
v	+0.1	-4.2



Pol.	peak	avg.
v	-4.4	-10.6



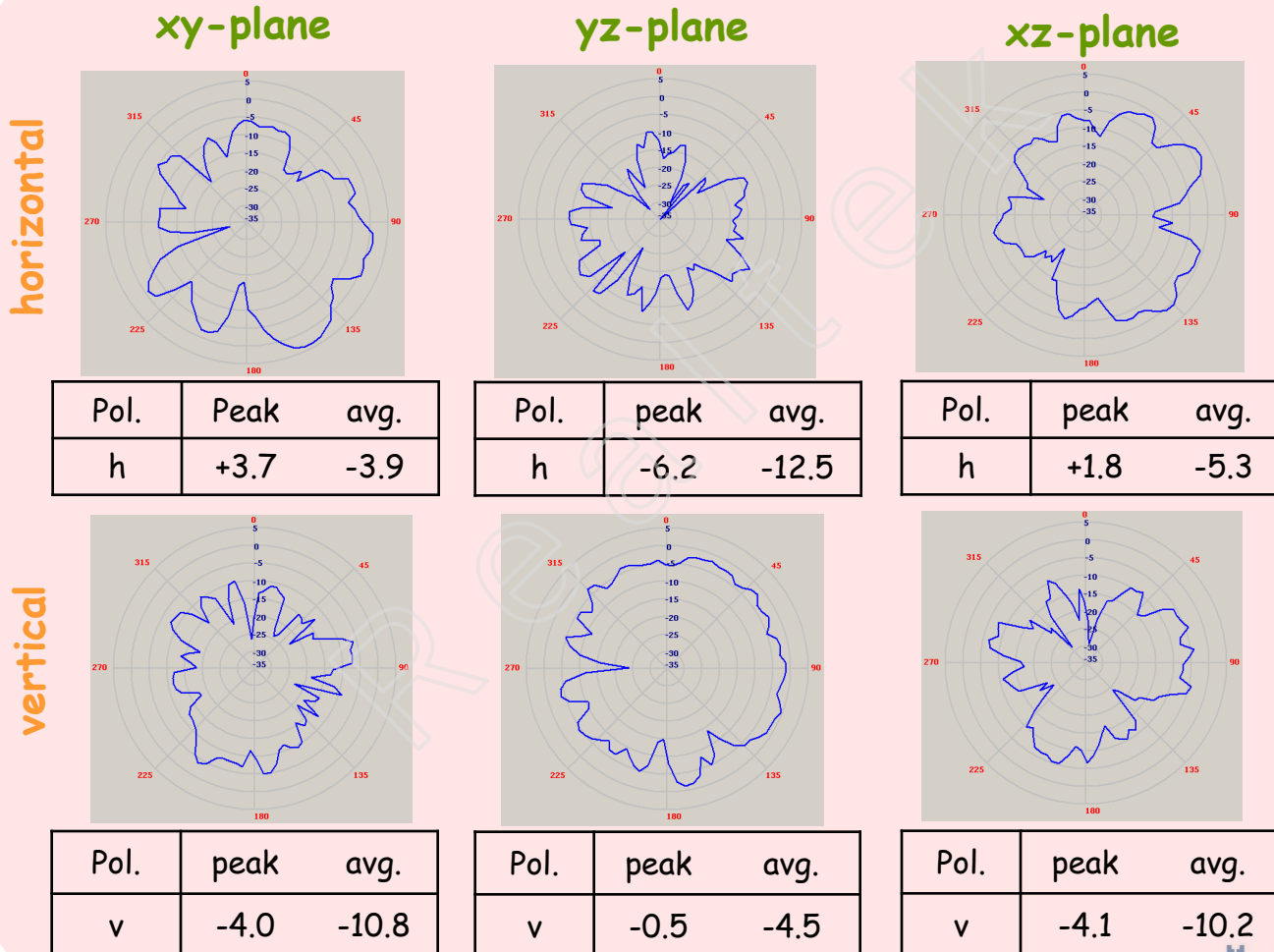
REALTEK

High Performance · Low Power



[PKE8720DF] module antenna test report

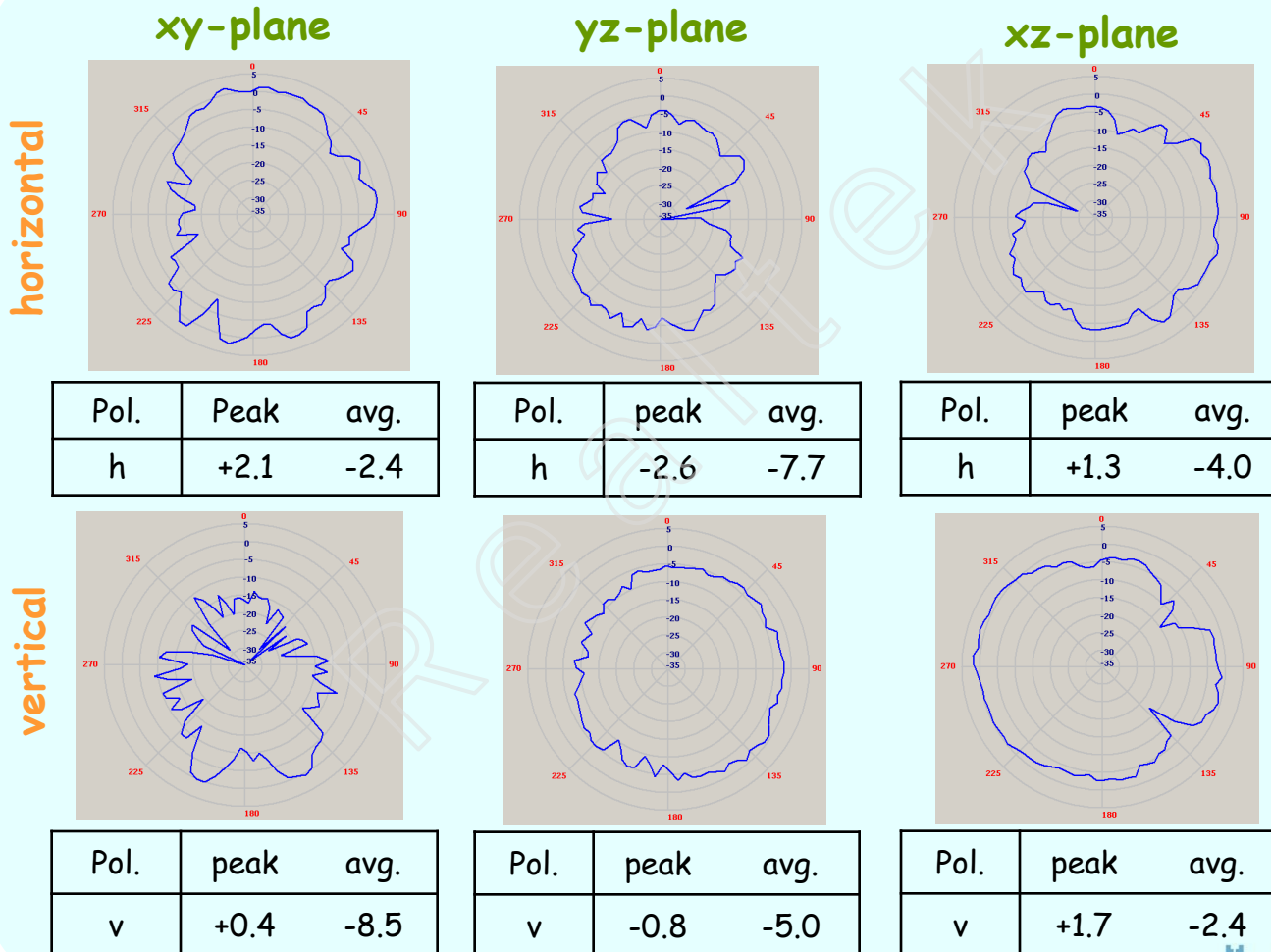
- Radiation Patterns – 2480 MHz





[PKE8720DF] module antenna test report

- Radiation Patterns – 5150 MHz



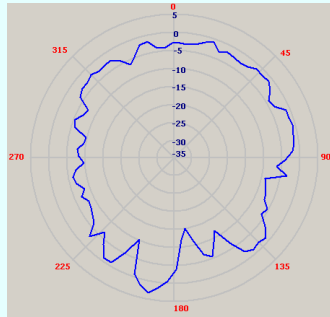


[PKE8720DF] module antenna test report

- Radiation Patterns – 5500 MHz

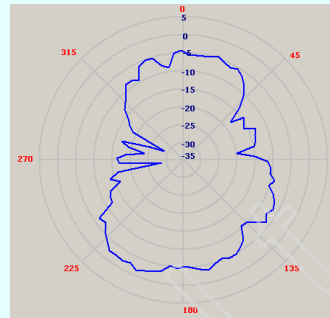
xy-plane

horizontal



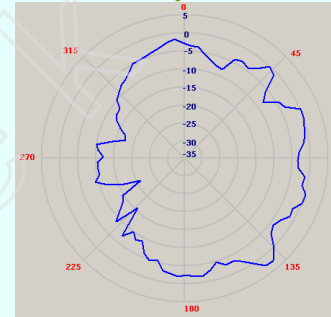
Pol.	Peak	avg.
h	+3.1	-3.6

yz-plane



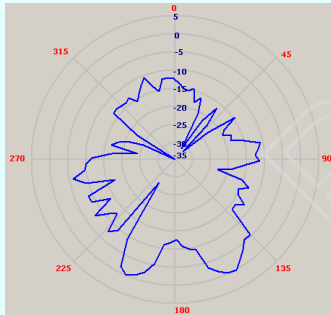
Pol.	peak	avg.
h	-1.6	-7.3

xz-plane

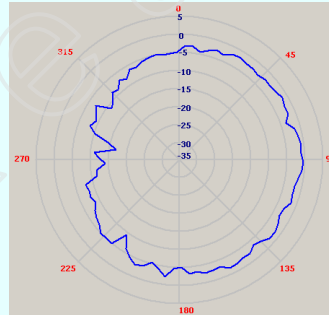


Pol.	peak	avg.
h	+2.6	-4.0

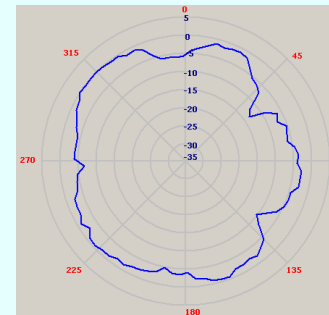
vertical



Pol.	peak	avg.
v	-0.1	-8.9



Pol.	peak	avg.
v	-0.6	-4.1



Pol.	peak	avg.
v	-0.1	-3.1



REALTEK

High Performance · Low Power

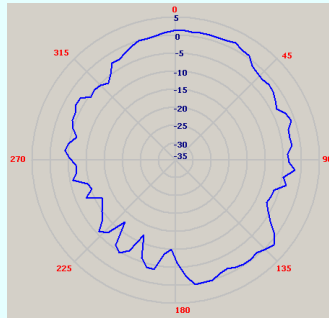


[PKE8720DF] module antenna test report

- Radiation Patterns – 5850 MHz

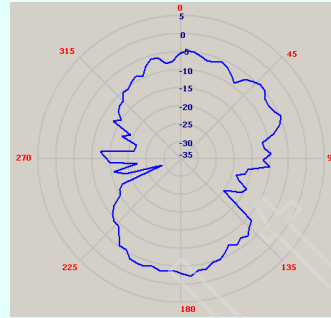
xy-plane

horizontal



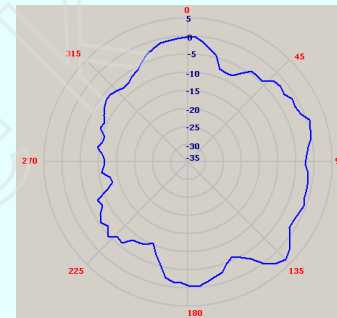
Pol.	Peak	avg.
h	+1.5	-2.5

yz-plane



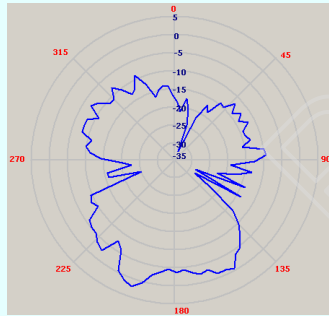
Pol.	peak	avg.
h	-2.3	-7.7

xz-plane

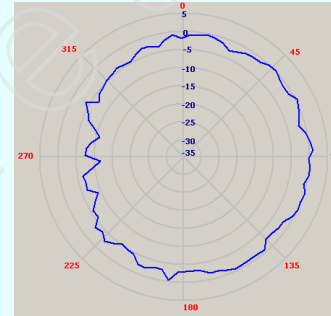


Pol.	peak	avg.
h	+3.1	-3.2

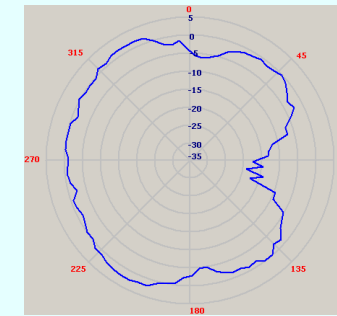
vertical



Pol.	peak	avg.
v	+2.1	-7.2



Pol.	peak	avg.
v	+0.9	-2.5



Pol.	peak	avg.
v	+2.2	-1.5



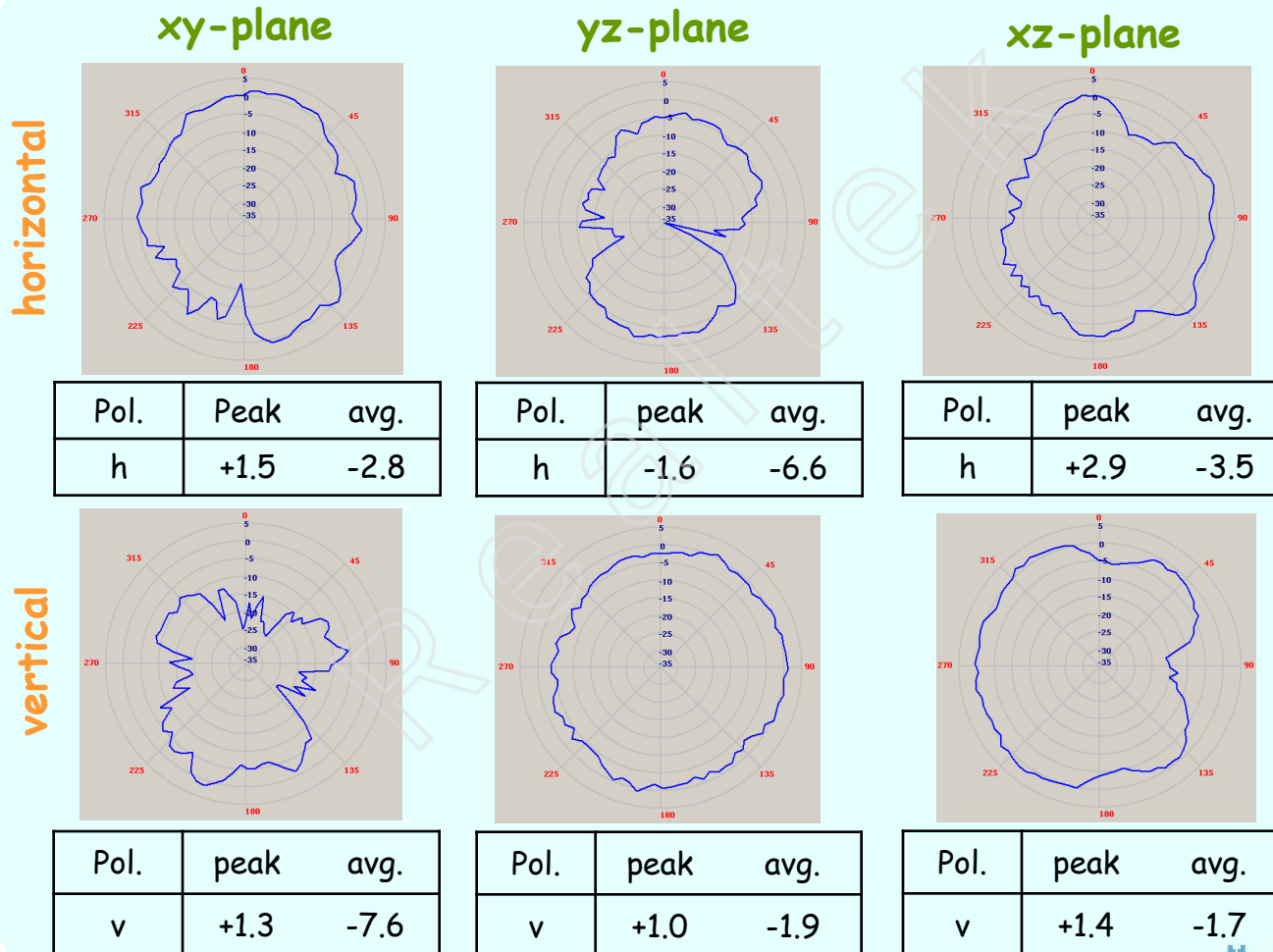
REALTEK

High Performance · Low Power



[PKE8720DF] module antenna test report

- Radiation Patterns – 5925 MHz



REALTEK

High Performance · Low Power



[PKE8720DF] module antenna test report

- Antenna Gain Table

Frequency (MHz)	Peak gain (dBi)
2400	+1.8
2450	+3.5
2480	+3.7

Frequency (MHz)	Peak gain (dBi)
5150	+2.1
5500	+3.1
5850	+3.1
5925	+2.9

