

FCC ID: A3LSMF721U

## Power Density Simulation Report

Revision A

June 10, 2022

SAMSUNG ELECTRONICS

## 1. Simulation methodology for Power Density (PD)

### 1.1 Simulation tool

#### 1.1.1 Tool description

For the simulation approach to calculating power density (PD) evaluation for mobile phone with mmWave antenna modules, ANSYS Electromagnetics suite version 2021.R2 (HFSS) is used. ANSYS HFSS is one of several commercial tools for 3D full-wave electromagnetic simulation used for antenna and RF structure design of high frequency component. ANSYS Electromagnetics suite version 2021.R2 (HFSS) is implemented based on Finite Element Method (FEM), which operates in the frequency domain.

#### 1.1.2 Mesh and Convergence criteria

To solve the PD analysis using FEM, volume area containing simulated objects should be subdivided into electrically small parts that are called finite elements as the unknown functions. To subdivide system, the adaptive mesh technique in ANSYS Electromagnetics suite version 2021.R2 (HFSS) is used. ANSYS Electromagnetics suite version 2021.R2 (HFSS) starts to refine the initial mesh based on wavelength and calculate the error to iterative process for adaptive mesh refinement. The determination parameter of the number of iteration in ANSYS Electromagnetics suite version 2021.R2 (HFSS) is defined as convergence criteria, delta S, and the iterative adaptive mesh process repeats until the delta S is met. In ANSYS Electromagnetics suite version 2021.R2 (HFSS), the accuracy of converged results depends on the delta S. Figure 1 is an example of final adaptive mesh of the device (cross-section of top view).

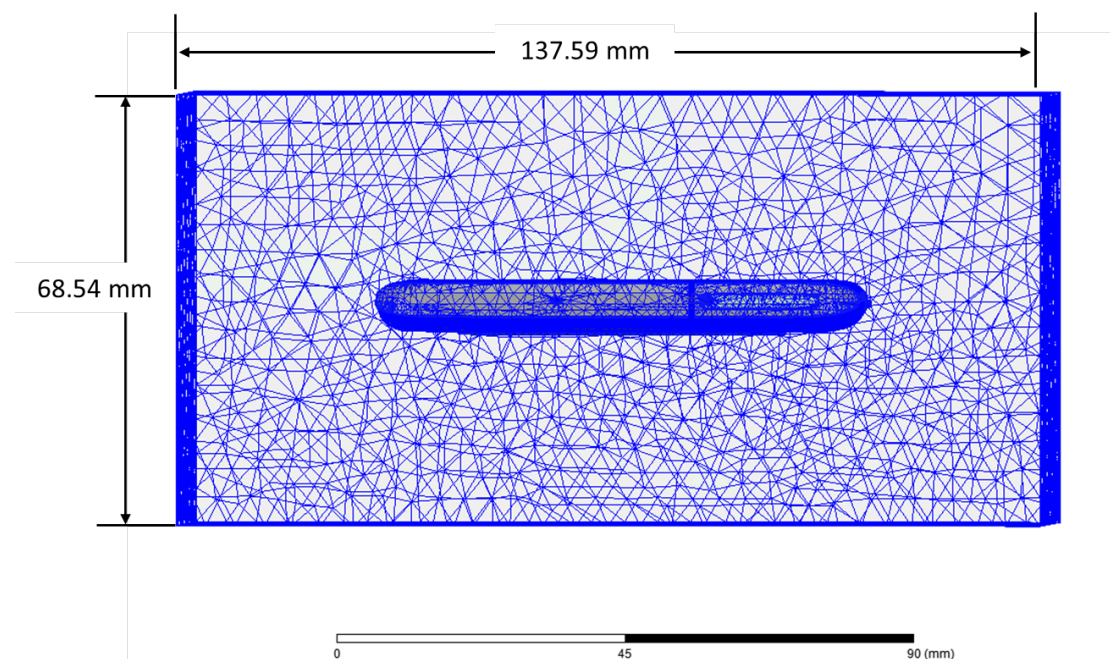


Figure 1 Example of the adaptive mesh technique (Top view)

### 1.1.3 Power density calculation

After solving 3D full-wave electromagnetic simulation, various kinds of physical quantities can be obtained. To calculate PD evaluation, two physical quantities, an electric field ( $\vec{E}$ ) and a magnetic field ( $\vec{H}$ ) are needed. The actual consumption power can be expressed as the real term of the Poynting vector ( $\vec{S}$ ) from the cross product of  $\vec{E}$  and complex conjugation of  $\vec{H}$  as shown below:

$$\langle \vec{S} \rangle = \text{Re} \left( \frac{1}{2} \vec{E} \times \vec{H}^* \right)$$

$\langle \vec{S} \rangle$  can be expressed as point power density based on a peak value of each spatial point on mesh grids, and obtained directly from ANSYS Electromagnetics suite version 2021.R2 (HFSS).

From the point power density  $\langle \vec{S} \rangle$ , the spatial-averaged power density ( $PD_{av}$ ) on an evaluated area ( $A$ ) can be derived as shown below:

$$PD_{av} = \frac{1}{A} \int_A \langle \vec{S} \rangle \cdot d\vec{s} = \frac{1}{2A_{av}} \iint_{A_{av}} \| \text{Re}\{E \times H^*\} \| dA$$

, where the spatial-averaged power density ( $PD_{av}$ ) is total power density value considering on x, y and z components of point power density  $\langle \vec{S} \rangle$  and the evaluated area ( $A$ ) is  $4\text{cm}^2$ .

## 1.2 Simulation setup

### 1.2.1 3D modeling

Figure 2 shows the simulation model which is mounted one mmWave antenna module. The simulation modeling includes most of the entire structure of device itself such as PCB, metal frame, battery, cables, and legacy antennas as well as mmWave antenna module called as Ant K. For a folder open status (Fig. 2-1), Ant K is placed on the left side and antennas are facing the left side. For a folder closed status (Fig. 2-2), Ant K is placed same of the folder open status.

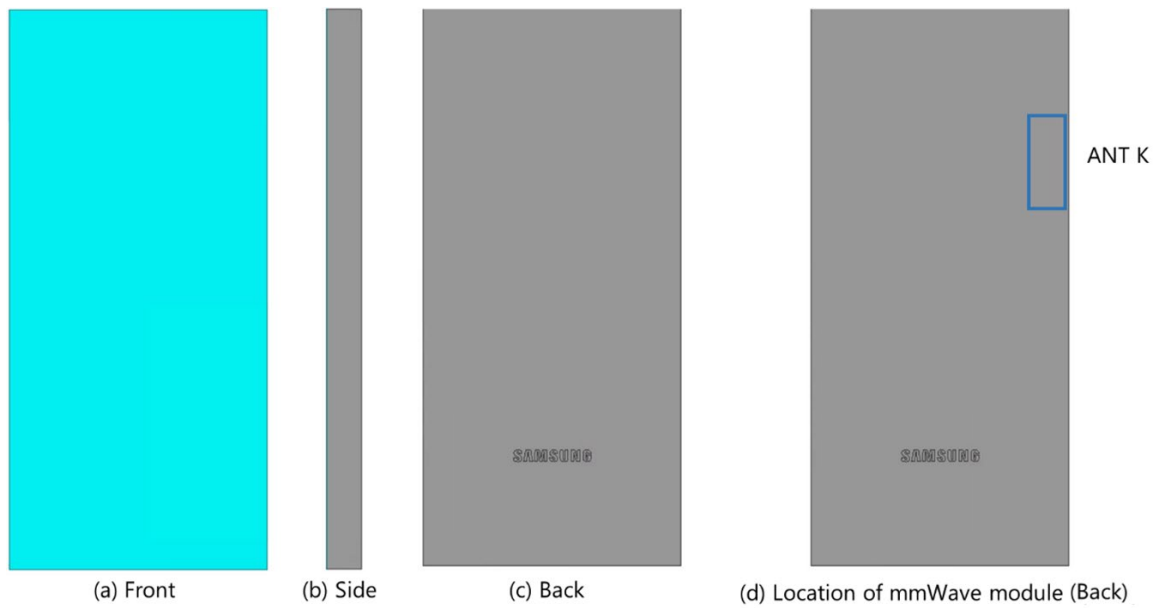


Figure 2-1. Simulation model which is mounted one mmWave antenna module (Folder Open Status)

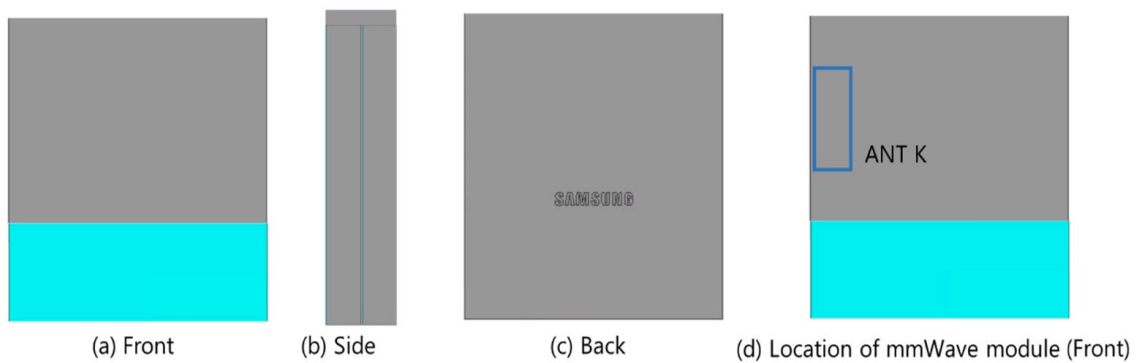


Figure 3-2. Simulation model which is mounted one mmWave antenna module (Folder Closed Status)

### 1.2.2 PD evaluation planes

Table 1 shows the PD evaluation planes for mmWave antenna module and Figure 3 shows the PD evaluation planes and whole area of the simulation model to find worst case of beamforming cases.

Please note that the “right” and “left” edge of mentioned in this report are defined from the perspective of looking at the device from the front side.

Table 1. PD evaluation planes

Module	Front	Back	Left From Front View	Right From Front View	Top	Bottom
	S1	S2	S3	S4	S5	S6
Ant K	O	O	O	O	O	O

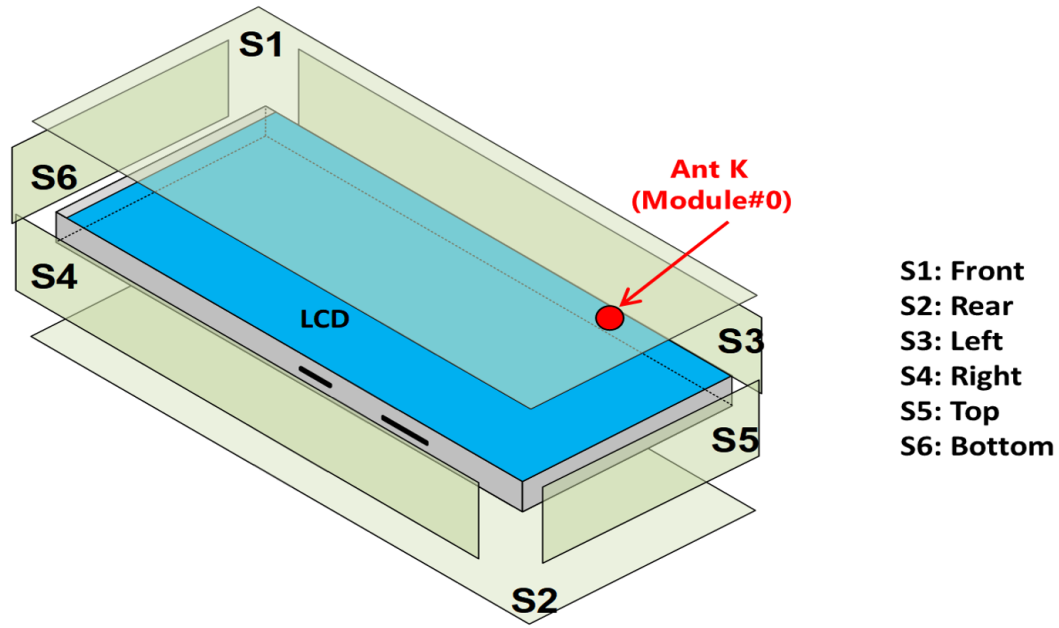


Figure 4. PD evaluation planes

### 1.2.3 Boundary condition

To simulate electromagnetic tool based on FEM, the boundary condition allows electromagnetic waves to be electrically open at the boundary and radiated far away without reflection. ANSYS Electromagnetics suite version 2021.R2 (HFSS) can support the absorbing boundary condition (ABC) for radiation boundary and make normally a quarter wave length from the radiating structure. In this report, to cover all beamforming cases of mmWave antenna module, 40 mm spacing from each surfaces of the device were used.

### 1.2.4 Source excitation condition

The number of antenna ports of ANT K for source excitation are the same. The antenna port of ANT K is divided into 10 ports for n261 1 x 5 patch array antennas, 10 ports for n260 1 x 5 patch array

antennas. In the 10 ports included in each patch antenna, 5 ports are divided into vertical polarization feeding, and the other 5 ports are divided into horizontal polarization feeding.

Figure 4 shows the ANT K module structure and surrounding structure. The ANT K module is encrypted in the ANSYS Electromagnetics suite (HFSS) and can only check the feeding position.

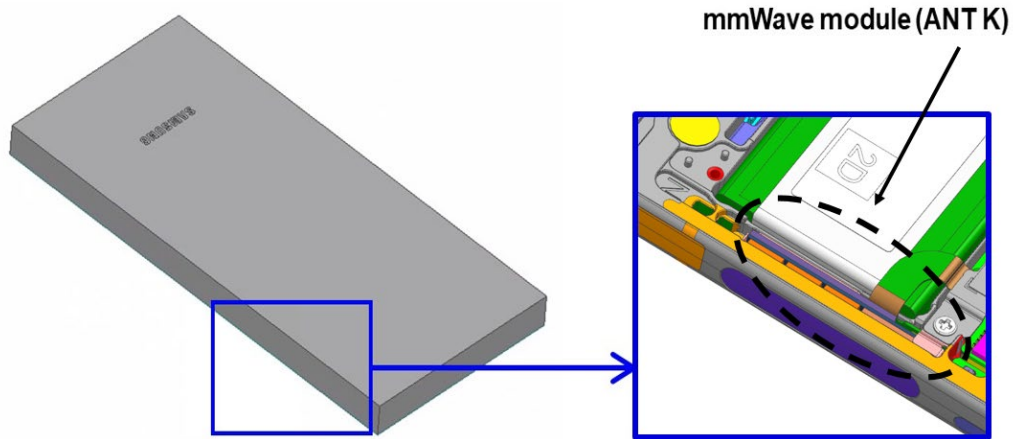


Figure 5. mmWave module (ANT K)

After finishing 3D full wave electromagnetic simulation of modeling structure, the magnitude and phase information can be loaded for each port by using “Edit Sources” function in ANSYS Electromagnetics suite (HFSS). Figure 5 shows an example of antenna port excitations.

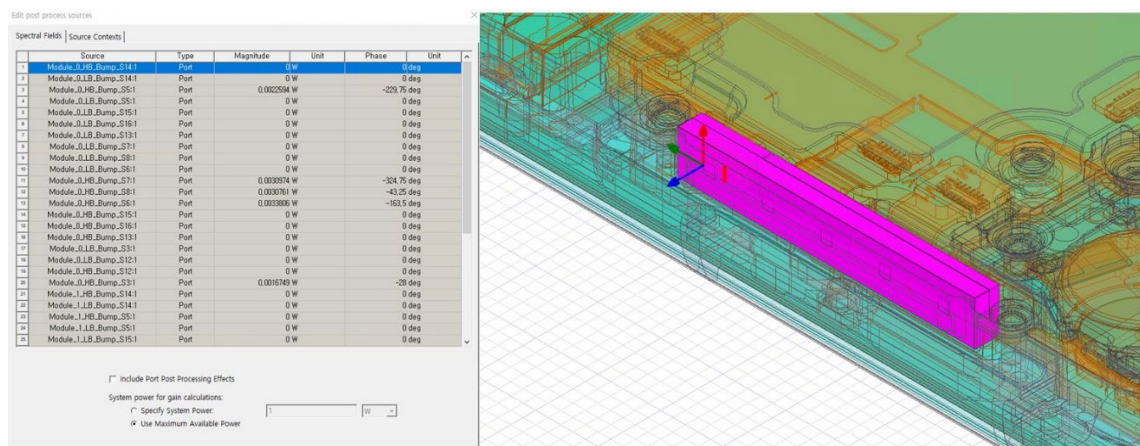


Figure 6. An example of port excitation (ANT K)

Since ANSYS Electromagnetics suite (HFSS) uses FEM solver based on frequency domain analysis method, the input source for the port excitation applies sinusoidal waveform for each frequency.

### 1.2.5 Condition of simulation completion

The simulation completion condition of ANSYS Electromagnetics suite (HFSS) is defined as delta S. The ANSYS Electromagnetics suite (HFSS) calculates the S-parameter for the mesh conditions of each step and determines whether to proceed with the operation of the next step by comparing the difference between the S-parameters in the previous step. A difference between the previous step and the current step of S-parameter is expressed as delta S, and the delta S generally sets 0.02. The simulation result of this report is the result of setting delta S to 0.02.

## 2. Simulation verification

### 2.1 Spatial-averaged power density

As mentioned in the previous chapter, the Poynting vector ( $\vec{S}$ ) can be obtained through cross product of an electric field ( $\vec{E}$ ) and complex conjugate of a magnetic field ( $\vec{H}$ ). The real term of the Poynting vector can be described as the point power density or peak power density. Using the point power density, the spatial-averaged power density can be obtained by the integral of  $4 \text{ cm}^2$  at 2.5 mm intervals of the point power density result. Figure 6 shows examples of the distribution plot of point power density and the averaged power density.

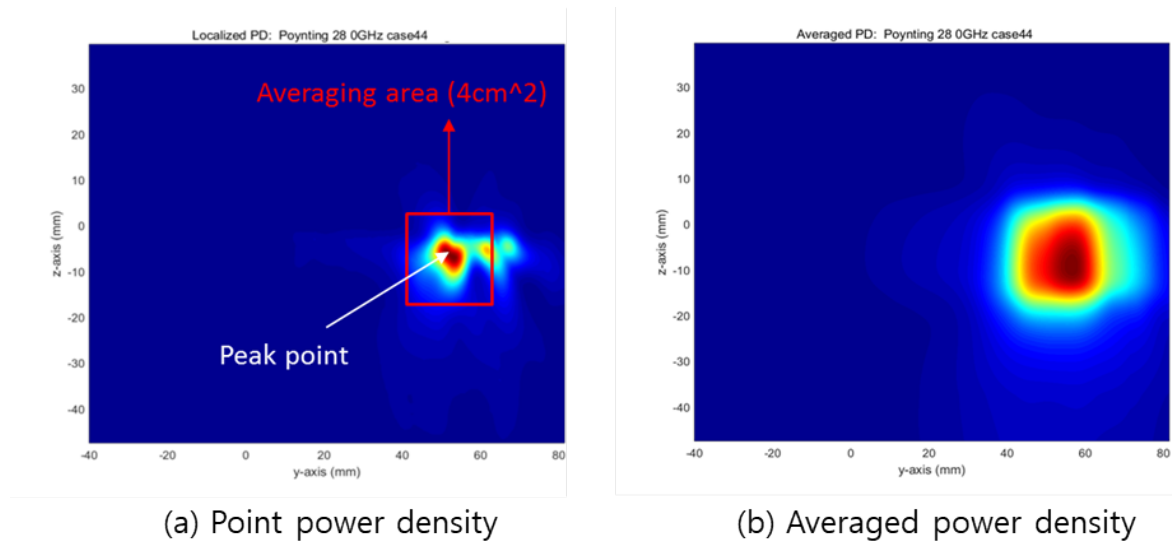


Figure 7. Power density distribution (Example)

### 2.2 Comparison between simulation and measurement

In this section, the simulated-power density distributions and measured-power density distributions are compared to each mmWave antenna.

Based on comparison of power density distributions, simulated power density and measured power density have a good correlation. The discrepancy in amplitude between simulated  $4 \text{ cm}^2$  averaged power density and measured  $4 \text{ cm}^2$  averaged power density is considered as housing influence and used in determining input power limit for each beam for RF exposure compliance.

The input powers per each active port are listed below for both Simulation and Measurement validation and power density characterization. For Simulation, these values were entered directly into HFSS model. For measurement, FTM S/W was used to input these values for each active port also.

Mode/Band	Antenna	Input Power (dBm) SISO	Input Power (dBm) MIMO
5G NR n261	K Patch	6.0	6.0
5G NR n260	K Patch	6.0	6.0
5G NR n258	K Patch	6.0	6.0

\* The below simulation and measurement result were performed at 2mm evaluation distance and 28GHz / 39GHz / 24GHz. The *input.power.limit* was determined based on below results in RF Exposure Part 0 Report.

					$4cm^2$ avg. PD(mW/cm <sup>2</sup> )	
Band	Beam ID	Antenna	Surface	Channel	Meas.	Sim
n261	17	K (patch)	Front (S1)	Mid	0.365	1.244
			Left (S3)	Mid	0.866	2.238
	141		Front (S1)	Mid	0.608	0.668
	143		Rear (S2)	Mid	0.59	0.969
	148		Left (S3)	Mid	0.594	1.276
n260	15	K (patch)	Left (S3)	Mid	0.605	1.623
	20		Rear (S2)	Mid	0.446	0.871
	144		Left (S3)	Mid	0.491	1.346
n258	15	K (patch)	Front (S1)	Mid	0.582	1.030
			Left (S3)	Mid	0.827	1.946
	141		Rear (S2)	Mid	0.698	1.036
	147		Left (S3)	Mid	0.8	1.269

(a) Measured PD for Folder Open Status

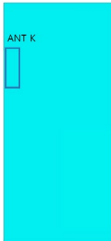
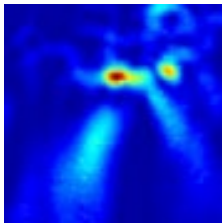
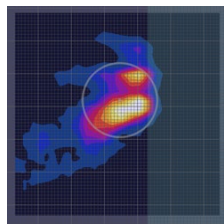

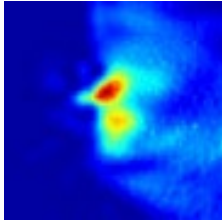
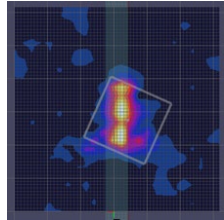


					$4\text{cm}^2 \text{ avg. PD (mW/cm}^2\text{)}$	
Band	Beam ID	Antenna	Surface	Channel	Meas.	Sim
n261	17	K (patch)	Left (S3)	Mid	0.957	2.313
	143		Front (S1)	Mid	0.349	0.947
	148		Left (S3)	Mid	0.639	1.305
n260	15	K (patch)	Left (S3)	Mid	0.53	1.652
	20		Front (S1)	Mid	0.391	0.856
	141		Front (S1)	Mid	0.231	0.684
	144		Left (S3)	Mid	0.575	1.362
n258	19	K (patch)	Left (S3)	Mid	1.2	2.011
	141		Front (S1)	Mid	0.596	1.002
	147		Left (S3)	Mid	0.918	1.285

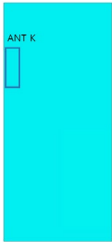
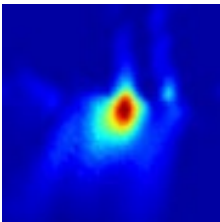
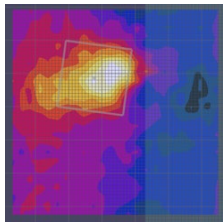

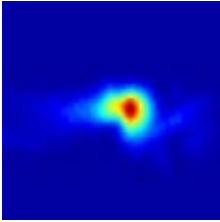
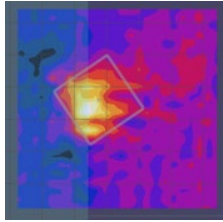
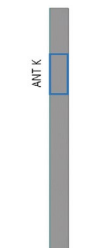
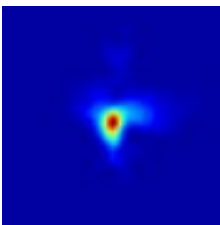
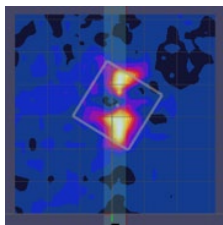
(b) Measured PD for Folder Closed Status

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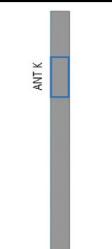
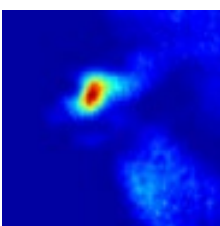
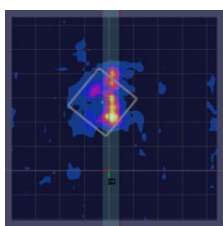

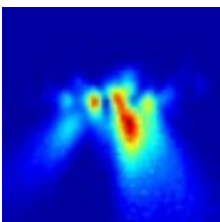
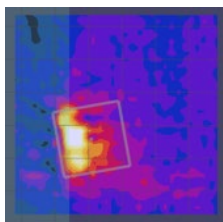
- Table 2-1, n261 ANT K-Patch: Mid Channel, Beam ID 17 for selected surfaces

Beam ID	Surface	View	Simulated PD	Measured PD
17	S1 (Front)			
	S3 (Left)			


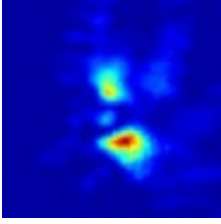
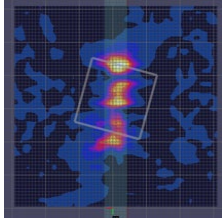
- Table 2-2, n261 ANT K-Patch: Mid Channel, Beam ID 141, 143 and 148 for selected surfaces

Beam ID	Surface	View	Simulated PD	Measured PD
141	S1 (Front)			
143	S2 (Rear)			
148	S3 (Left)			

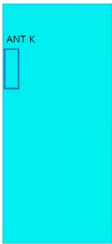
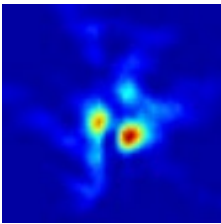
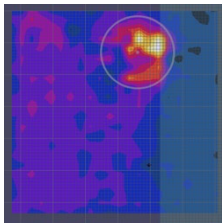

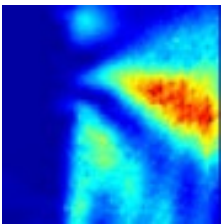
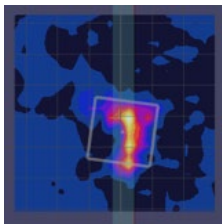
- Table 2-3, n260 ANT K-Patch: Mid Channel, Beam ID 15 and 20 for selected surfaces

Beam ID	Surface	View	Simulated PD	Measured PD
15	S3 (Left)			
20	S2 (Rear)			


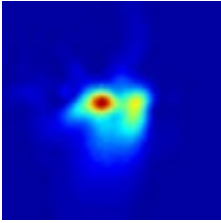
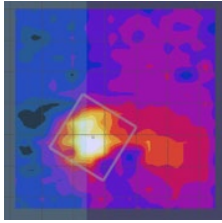

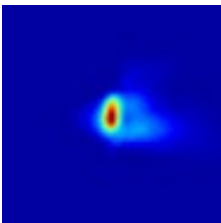
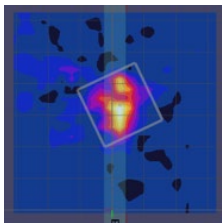
- Table 2-4, n260 ANT K-Patch: Mid Channel, Beam ID 144 for selected surfaces

Beam ID	Surface	View	Simulated PD	Measured PD
144	S3 (Left)			

- Table 2-5, n258 ANT K-Patch: Mid Channel, Beam ID 15 for selected surfaces

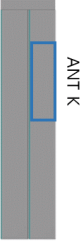
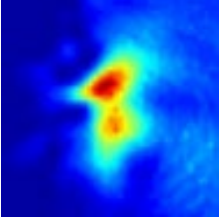
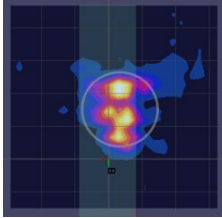
Beam ID	Surface	View	Simulated PD	Measured PD
15	S1 (Front)			
	S3 (Left)			

- Table 2-6, n258 ANT K-Patch: Mid Channel, Beam ID 141 and 147 for selected surfaces

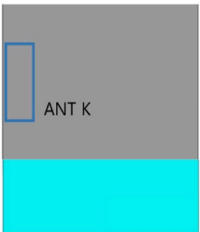
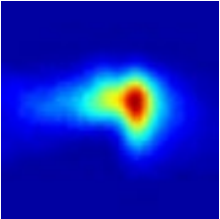
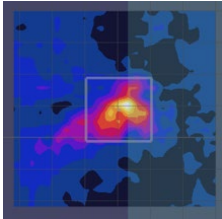
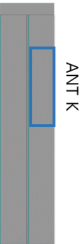
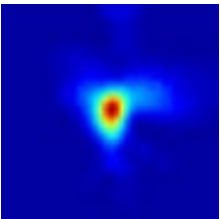

Beam ID	Surface	View	Simulated PD	Measured PD
141	S2 (Rear)			
147	S3 (Left)			

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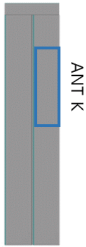
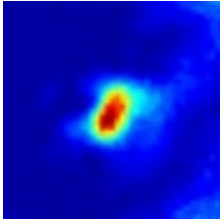
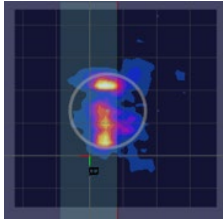
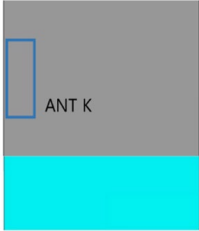
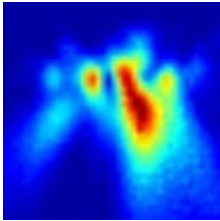
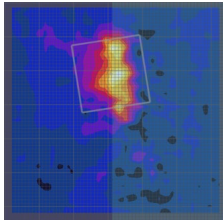
- Table 2-7, n261 ANT K-Patch: Mid Channel, Beam ID 17 for selected surfaces

Beam ID	Surface	View	Simulated PD	Measured PD
17	S3 (Left)			

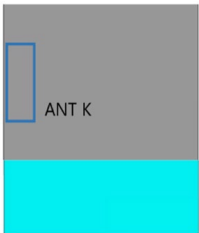
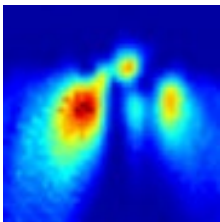
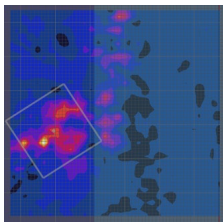
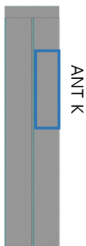
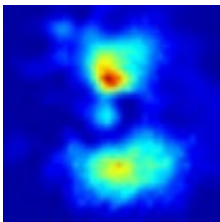
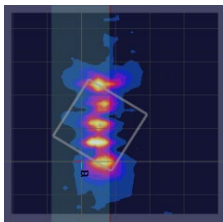
- Table 2-8, n261 ANT K-Patch: Mid Channel, Beam ID 143 and 148 for selected surfaces

Beam ID	Surface	View	Simulated PD	Measured PD
143	S1 (Front)			
148	S3 (Left)			

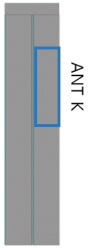
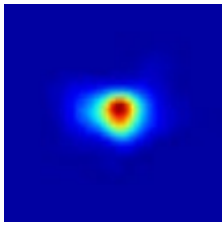
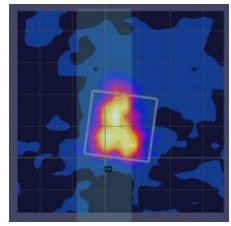
- Table 2-9, n260 ANT K-Patch: Mid Channel, Beam ID 15 and 20 for selected surfaces

Beam ID	Surface	View	Simulated PD	Measured PD
15	S3 (Left)			
20	S1 (Front)			

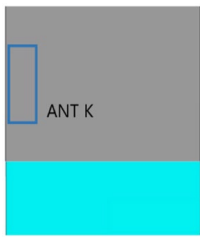
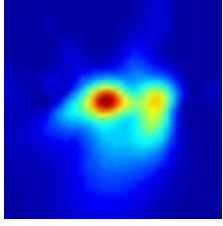
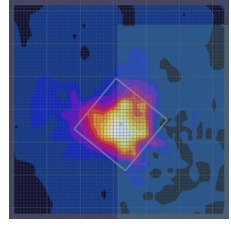
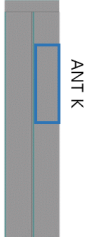
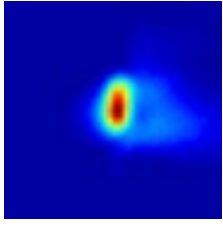
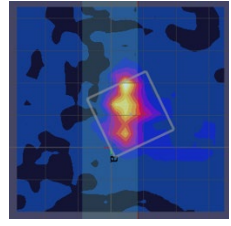
- Table 2-10, n260 ANT K-Patch: Mid Channel, Beam ID 141 and 144 for selected surfaces

Beam ID	Surface	View	Simulated PD	Measured PD
141	S1 (Front)			
144	S3 (Left)			

- Table 2-11, n258. ANT K-Patch: Mid Channel, Beam ID 19 for selected surfaces

Beam ID	Surface	View	Simulated PD	Measured PD
19	S3 (Left)			

- Table 2-12, n258 ANT K-Patch: Mid Channel, Beam ID 141 and 147 for selected surfaces

Beam ID	Surface	View	Simulated PD	Measured PD
141	S1 (Front)			
147	S3 (Left)			

### 3 Simulation results

This section shows the PD simulation results of Ant K at 28GHz, 39GHz and 24GHz for each evaluation plane specified in Table 1 at two separation distances of 2mm and 10mm for open condition and 2mm and 5mm for closed condition. The ratio of PD exposure from front surface to the worst surface at 2mm, and the ratio of PD exposure from 2mm to 10mm (open) or 2mm to 5mm (closed) evaluation distance for each beam are also reported in this section to support RF exposure analysis for simultaneous transmission scenarios performed in the Part 1 Near Field PD report.

The relative phase between beam pairs is not controlled in the chipset design. Therefore, the relative phase between each beam pair was considered mathematically to identify the worst case conditions. The below MIMO results represent the highest reported MIMO simulation results after sweeping across the relative phase between beams a 5° step interval from 0° to 360°.

The worst-case simulated PD determined from the tables in this section were used for conservativeness in *input.power.limit* determination in RF Exposure Part 0 Report.

[illegible]

- K-patch High CH

[illegible]

**[Folder Closed Status]**

- K-patch Low CH

[illegible]

- K-patch Mid CH

No.	Machine	Type	Series R1, 2	Series R1, 3	Series R1, 4	Series R1, 5	Series R1, 6	Series R1, 7	Series R1, 8	Series R1, 9	Series R1, 10	new ratio rate of all machines										new ratio rate of all machines										new ratio rate of all machines																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
												Area (Percentage)										Area (Percentage) or Item evaluation distance										Area (Percentage) or Item evaluation distance																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
												Left (R1)	Left (R2)	Left (R3)	Left (R4)	Left (R5)	Left (R6)	Left (R7)	Left (R8)	Left (R9)	Left (R10)	Left (R11)	Left (R12)	Left (R13)	Left (R14)	Left (R15)	Left (R16)	Left (R17)	Left (R18)	Left (R19)	Left (R20)	Left (R21)	Left (R22)	Left (R23)	Left (R24)	Left (R25)	Left (R26)	Left (R27)	Left (R28)	Left (R29)	Left (R30)	Left (R31)	Left (R32)	Left (R33)	Left (R34)	Left (R35)	Left (R36)	Left (R37)	Left (R38)	Left (R39)	Left (R40)	Left (R41)	Left (R42)	Left (R43)	Left (R44)	Left (R45)	Left (R46)	Left (R47)	Left (R48)	Left (R49)	Left (R50)	Left (R51)	Left (R52)	Left (R53)	Left (R54)	Left (R55)	Left (R56)	Left (R57)	Left (R58)	Left (R59)	Left (R60)	Left (R61)	Left (R62)	Left (R63)	Left (R64)	Left (R65)	Left (R66)	Left (R67)	Left (R68)	Left (R69)	Left (R70)	Left (R71)	Left (R72)	Left (R73)	Left (R74)	Left (R75)	Left (R76)	Left (R77)	Left (R78)	Left (R79)	Left (R80)	Left (R81)	Left (R82)	Left (R83)	Left (R84)	Left (R85)	Left (R86)	Left (R87)	Left (R88)	Left (R89)	Left (R90)	Left (R91)	Left (R92)	Left (R93)	Left (R94)	Left (R95)	Left (R96)	Left (R97)	Left (R98)	Left (R99)	Left (R100)	Left (R101)	Left (R102)	Left (R103)	Left (R104)	Left (R105)	Left (R106)	Left (R107)	Left (R108)	Left (R109)	Left (R110)	Left (R111)	Left (R112)	Left (R113)	Left (R114)	Left (R115)	Left (R116)	Left (R117)	Left (R118)	Left (R119)	Left (R120)	Left (R121)	Left (R122)	Left (R123)	Left (R124)	Left (R125)	Left (R126)	Left (R127)	Left (R128)	Left (R129)	Left (R130)	Left (R131)	Left (R132)	Left (R133)	Left (R134)	Left (R135)	Left (R136)	Left (R137)	Left (R138)	Left (R139)	Left (R140)	Left (R141)	Left (R142)	Left (R143)	Left (R144)	Left (R145)	Left (R146)	Left (R147)	Left (R148)	Left (R149)	Left (R150)	Left (R151)	Left (R152)	Left (R153)	Left (R154)	Left (R155)	Left (R156)	Left (R157)	Left (R158)	Left (R159)	Left (R160)	Left (R161)	Left (R162)	Left (R163)	Left (R164)	Left (R165)	Left (R166)	Left (R167)	Left (R168)	Left (R169)	Left (R170)	Left (R171)	Left (R172)	Left (R173)	Left (R174)	Left (R175)	Left (R176)	Left (R177)	Left (R178)	Left (R179)	Left (R180)	Left (R181)	Left (R182)	Left (R183)	Left (R184)	Left (R185)	Left (R186)	Left (R187)	Left (R188)	Left (R189)	Left (R190)	Left (R191)	Left (R192)	Left (R193)	Left (R194)	Left (R195)	Left (R196)	Left (R197)	Left (R198)	Left (R199)	Left (R200)	Left (R201)	Left (R202)	Left (R203)	Left (R204)	Left (R205)	Left (R206)	Left (R207)	Left (R208)	Left (R209)	Left (R210)	Left (R211)	Left (R212)	Left (R213)	Left (R214)	Left (R215)	Left (R216)	Left (R217)	Left (R218)	Left (R219)	Left (R220)	Left (R221)	Left (R222)	Left (R223)	Left (R224)	Left (R225)	Left (R226)	Left (R227)	Left (R228)	Left (R229)	Left (R230)	Left (R231)	Left (R232)	Left (R233)	Left (R234)	Left (R235)	Left (R236)	Left (R237)	Left (R238)	Left (R239)	Left (R240)	Left (R241)	Left (R242)	Left (R243)	Left (R244)	Left (R245)	Left (R246)	Left (R247)	Left (R248)	Left (R249)	Left (R250)	Left (R251)	Left (R252)	Left (R253)	Left (R254)	Left (R255)	Left (R256)	Left (R257)	Left (R258)	Left (R259)	Left (R260)	Left (R261)	Left (R262)	Left (R263)	Left (R264)	Left (R265)	Left (R266)	Left (R267)	Left (R268)	Left (R269)	Left (R270)	Left (R271)	Left (R272)	Left (R273)	Left (R274)	Left (R275)	Left (R276)	Left (R277)	Left (R278)	Left (R279)	Left (R280)	Left (R281)	Left (R282)	Left (R283)	Left (R284)	Left (R285)	Left (R286)	Left (R287)	Left (R288)	Left (R289)	Left (R290)	Left (R291)	Left (R292)	Left (R293)	Left (R294)	Left (R295)	Left (R296)	Left (R297)	Left (R298)	Left (R299)	Left (R300)	Left (R301)	Left (R302)	Left (R303)	Left (R304)	Left (R305)	Left (R306)	Left (R307)	Left (R308)	Left (R309)	Left (R310)	Left (R311)	Left (R312)	Left (R313)	Left (R314)	Left (R315)	Left (R316)	Left (R317)	Left (R318)	Left (R319)	Left (R320)	Left (R321)	Left (R322)	Left (R323)	Left (R324)	Left (R325)	Left (R326)	Left (R327)	Left (R328)	Left (R329)	Left (R330)	Left (R331)	Left (R332)	Left (R333)	Left (R334)	Left (R335)	Left (R336)	Left (R337)	Left (R338)	Left (R339)	Left (R340)	Left (R341)	Left (R342)	Left (R343)	Left (R344)	Left (R345)	Left (R346)	Left (R347)	Left (R348)	Left (R349)	Left (R350)	Left (R351)	Left (R352)	Left (R353)	Left (R354)	Left (R355)	Left (R356)	Left (R357)	Left (R358)	Left (R359)	Left (R360)	Left (R361)	Left (R362)	Left (R363)	Left (R364)	Left (R365)	Left (R366)	Left (R367)	Left (R368)	Left (R369)	Left (R370)	Left (R371)	Left (R372)	Left (R373)	Left (R374)	Left (R375)	Left (R376)	Left (R377)	Left (R378)	Left (R379)	Left (R380)	Left (R381)	Left (R382)	Left (R383)	Left (R384)	Left (R385)	Left (R386)	Left (R387)	Left (R388)	Left (R389)	Left (R390)	Left (R391)	Left (R392)	Left (R393)	Left (R394)	Left (R395)	Left (R396)	Left (R397)	Left (R398)	Left (R399)	Left (R400)	Left (R401)	Left (R402)	Left (R403)	Left (R404)	Left (R405)	Left (R406)	Left (R407)	Left (R408)	Left (R409)	Left (R410)	Left (R411)	Left (R412)	Left (R413)	Left (R414)	Left (R415)	Left (R416)	Left (R417)	Left (R418)	Left (R419)	Left (R420)	Left (R421)	Left (R422)	Left (R423)	Left (R424)	Left (R425)	Left (R426)	Left (R427)	Left (R428)	Left (R429)	Left (R430)	Left (R431)	Left (R432)	Left (R433)	Left (R434)	Left (R435)	Left (R436)	Left (R437)	Left (R438)	Left (R439)	Left (R440)	Left (R441)	Left (R442)	Left (R443)	Left (R444)	Left (R445)	Left (R446)	Left (R447)	Left (R448)	Left (R449)	Left (R450)	Left (R451)	Left (R452)	Left (R453)	Left (R454)	Left (R455)	Left (R456)	Left (R457)	Left (R458)	Left (R459)	Left (R460)	Left (R461)	Left (R462)	Left (R463)	Left (R464)	Left (R465)	Left (R466)	Left (R467)	Left (R468)	Left (R469)	Left (R470)	Left (R471)	Left (R472)	Left (R473)	Left (R474)	Left (R475)	Left (R476)	Left (R477)	Left (R478)	Left (R479)	Left (R480)	Left (R481)	Left (R482)	Left (R483)	Left (R484)	Left (R485)	Left (R486)	Left (R487)	Left (R488)	Left (R489)	Left (R490)	Left (R491)	Left (R492)	Left (R493)	Left (R494)	Left (R495)	Left (R496)	Left (R497)	Left (R498)	Left (R499)	Left (R500)	Left (R501)	Left (R502)	Left (R503)	Left (R504)	Left (R505)	Left (R506)	Left (R507)	Left (R508)	Left (R509)	Left (R510)	Left (R511)	Left (R512)	Left (R513)	Left (R514)	Left (R515)	Left (R516)	Left (R517)	Left (R518)	Left (R519)	Left (R520)	Left (R521)	Left (R522)	Left (R523)	Left (R524)	Left (R525)	Left (R526)	Left (R527)	Left (R528)	Left (R529)	Left (R530)	Left (R531)	Left (R532)	Left (R533)	Left (R534)	Left (R535)	Left (R536)	Left (R537)	Left (R538)	Left (R539)	Left (R540)	Left (R541)	Left (R542)	Left (R543)	Left (R544)	Left (R545)	Left (R546)	Left (R547)	Left (R548)	Left (R549)	Left (R550)	Left (R551)	Left (R552)	Left (R553)	Left (R554)	Left (R555)	Left (R556)	Left (R557)	Left (R558)	Left (R559)	Left (R560)	Left (R561)	Left (R562)	Left (R563)	Left (R564)	Left (R565)	Left (R566)	Left (R567)	Left (R568)	Left (R569)	Left (R570)	Left (R571)	Left (R572)	Left (R573)	Left (R574)	Left (R575)	Left (R576)	Left (R577)	Left (R578)	Left (R579)	Left (R580)	Left (R581)	Left (R582)	Left (R583)	Left (R584)	Left (R585)	Left (R586)	Left (R587)	Left (R588)	Left (R589)	Left (R590)	Left (R591)	Left (R592)	Left (R593)	Left (R594)	Left (R595)	Left (R596)	Left (R597)	Left (R598)	Left (R599)	Left (R600)	Left (R601)	Left (R602)	Left (R603)	Left (R604)	Left (R605)	Left (R606)	Left (R607)	Left (R608)	Left (R609)	Left (R610)	Left (R611)	Left (R612)	Left (R613)	Left (R614)	Left (R615)	Left (R616)	Left (R617)	Left (R618)	Left (R619)	Left (R620)	Left (R621)	Left (R622)	Left (R623)	Left (R624)	Left (R625)	Left (R626)	Left (R627)	Left (R628)	Left (R629)	Left (R630)	Left (R631)	Left (R632)	Left (R633)	Left (R634)	Left (R635)	Left (R636)	Left (R637)	Left (R638)	Left (R639)	Left (R640)	Left (R641)	Left (R642)	Left (R643)	Left (R644)	Left (R645)	Left (R646)	Left (R647)	Left (R648)	Left (R649)	Left (R650)	Left (R651)	Left (R652)	Left (R653)	Left (R654)	Left (R655)	Left (R656)	Left (R657)	Left (R658)	Left (R659)	Left (R660)	Left (R661)	Left (R662)	Left (R663)	Left (R664)	Left (R665)	Left (R666)	Left (R667)	Left (R668)	Left (R669)	Left (R670)	Left (R671)	Left (R672)	Left (R673)	Left (R674)	Left (R675)	Left (R676)	Left (R677)	Left (R678)	Left (R679)	Left (R680)	Left (R681)	Left (R682)	Left (R683)	Left (R684)	Left (R685)	Left (R686)	Left (R687)	Left (R688)	Left (R689)	Left (R690)	Left (R691)	Left (R692)	Left (R693)	Left (R694)	Left (R695)	Left (R696)	Left (R697)	Left (R698)	Left (R699)	Left (R700)	Left (R701)	Left (R702)	Left (R703)	Left (R704)	Left (R705)	Left (R706)	Left (R707)	Left (R708)	Left (R709)	Left (R710)	Left (R711)	Left (R712)	Left (R713)	Left (R714)	Left (R715)	Left (R716)	Left (R717)	Left (R718)	Left (R719)	Left (R720)	Left (R721)	Left (R722)	Left (R723)	Left (R724)	Left (R725)	Left (R726)	Left (R727)	Left (R728)	Left (R729)	Left (R730)	Left (R731)	Left (R732)	Left (R733)	Left (R734)	Left (R735)	Left (R736)	Left (R737)	Left (R738)	Left (R739)	Left (R740)	Left (R741)	Left (R742)	Left (R743)	Left (R744)	Left (R745)	Left (R746)	Left (R747)	Left (R748)	Left (R749)	Left (R750)	Left (R751)	Left (R752)	Left (R753)	Left (R754)	Left (R755)	Left (R756)	Left (R757)	Left (R758)	Left (R759)	Left (R760)	Left (R761)	Left (R762)	Left (R763)	Left (R764)	Left (R765)	Left (R766)	Left (R767)	Left (R768)	Left (R769)	Left (R770)	Left (R771)	Left (R772)	Left (R773)	Left (R774)	Left (R775)	Left (R776)	Left (R777)	Left (R778)	Left (R779)	Left (R780)	Left (R781)	Left (R782)	Left (R783)	Left (R784)	Left (R785)	Left (R786)	Left (R787)	Left (R788)	Left (R789)	Left (R790)	Left (R791)	Left (R792)	Left (R793)	Left (R794)	Left (R795)	Left (R796)	Left (R797)	Left (R798)	Left (R799)	Left (R800)	Left (R801)	Left (R802)	Left (R803)	Left (R804)	Left (R805)	Left (R806)	Left (R807)	Left (R808)	Left (R809)	Left (R810)	Left (R811)	Left (R812)	Left (R813)	Left (R814)	Left (R815)	Left (R816)	Left (R817)	Left (R818)	Left (R819)	Left (R820)	Left (R821)	Left (R822)	Left (R823)	Left (R824)	Left (R825)	Left (R826)	Left (R827)	Left (R828)	Left (R829)	Left (R830)	Left (R831)	Left (R832)	Left (R833)	Left (R834)	Left (R835)	Left (R836)	Left (R837)	Left (R838)	Left (R839)	Left (R840)	Left (R841)	Left (R842)	Left (R843)	Left (R844)	Left (R845)	Left (R846)	Left (R847)	Left (R848)	Left (R849)	Left (R850)	Left (R851)	Left (R852)	Left (R853)	Left (R854)	Left (R855)	Left (R856)	Left (R857)	Left (R858)	Left (R859)	Left (R860)	Left (R861)	Left (R862)	Left (R863)	Left (R864)	Left (R865)	Left (R866)	Left (R867)	Left (R868)	Left (R869)	Left (R870)	Left (R871)	Left (R872)	Left (R873)	Left (R874)	Left (R875)	Left (R876)	Left (R877)	Left (R878)	Left (R879)	Left (R880)	Left (R881)	Left (R882)	Left (R883)	Left (R884)	Left (R885)	Left (R886)	Left (R887)	Left (R888)	Left (R889)	Left (R890)	Left (R891)	Left (R892)	Left (R893)	Left (R894)	Left (R895)	Left (R896)	Left (R897)	Left (R898)	Left (R899)	Left (R900)	Left (R901)	Left (R902)	Left (R903)	Left (R904)	Left (R905)	Left (R906)	Left (R907)	Left (R908)	Left (R909)	Left (R910)	Left (R911)	Left (R912)	Left (R913)	Left (R914)	Left (R915)	Left (R916)	Left (R917)	Left (R918)	Left (R919)	Left (R920)	Left (R921)	Left (R922)	Left (R923)	Left (R924)	Left (R925)	Left (R926)	Left (R927)	Left (R928)	Left (R929)	Left (R930)	Left (R931)	Left (R932)	Left (R933)	Left (R934)	Left (R935)	Left (R936)	Left (R937)	Left (R938)	Left (R939)	Left (R940)	Left (R941)	Left (R942)	Left (R943)	Left (R944)	Left (R945)	Left (R946)	Left (R947)	Left (R948)	Left (R949)	Left (R950)	Left (R951)	Left (R952)	Left (R953)	Left (R954)	Left (R955)	Left (R956)	Left (R957)	Left (R958)	Left (R959)	Left (R960)	Left (R961)	Left (R962)	Left (R963)	Left (R964)	Left (R965)	Left (R966)	Left (R967)	Left (R968)	Left (R969)	Left (R970)	Left (R971)	Left (R972)	Left (R973)	Left (R974)	Left (R975)	Left (R976)	Left (R977)	Left (R978)	Left (R979)	Left (R980)	Left (R981)	Left (R982)	Left (R983)	Left (R984)	Left (R985)	Left (R986)	Left (R987)	Left (R988)	Left (R989)	Left (R990)	Left (R991)	Left (R992)	Left (R993)	Left (R994)	Left (R995)	Left (R996)	Left (R997)	Left (R998)	Left (R999)	Left (R1000)	Left (R1001)	Left (R1002)	Left (R1003)	Left (R1004)	Left (R1005)	Left (R1006)	Left (R1007)	Left (R1008)	Left (R1009)	Left (R1010)	Left (R1011)	Left (R1012)	Left (R1013)	Left (R1014)	Left (R1015)	Left (R1016)	Left (R1017)	Left (R1018)	Left (R1019)	Left (R1020)	Left (R1021)	Left (R1022)	Left (R1023)	Left (R1024)	Left (R1025)	Left (R1026)	Left (R1027)	Left (R1028)	Left (R1029)	Left (R1030)	Left (R1031)	Left (R1032)	Left (R1033)	Left (R1034)	Left (R1035)	Left (R1036)	Left (R1037)	Left (R1038)	Left (R1039)	Left (R1040)	Left (R1041)	Left (R1042)	Left (R1043)	Left (R1044)	Left (R1045)	Left (R1046)	Left (R1047)	Left (R1048)	Left (R1049)	Left (R1050)	Left (R1051)	Left (R1052)	Left (R1053)	Left (R1054)	Left (R1055)	Left (R1056)	Left (R1057)	Left (R1058)	Left (R1059)	Left (R1060)	Left (R1061)	Left (R1062)	Left (R1063)	Left (R1064)	Left (R1065)	Left (R1066)	Left (R1067)	Left (R1068)	Left (R1069)	Left (R1070)	Left (R1071)	Left (R1072)	Left (R1073)	Left (R1074)	Left (R1075)	Left (R1076)	Left (R1077)	Left (R1078)	Left (R1079)	Left (R1080)	Left (R1081)	Left (R1082)	Left (R1083)	Left (R1084)	Left (R1085)	Left (R1086)	Left (R1087)	Left (R1088)	Left (R1089)	Left (R1090)	Left (R1091)



- K-patch High CH

[illegible]

Table 4. PD of Ant K – patch antenna (39GHz – n260)

**[Folder Open Status]**

- K-patch Low CH

[illegible]

- K-patch Mid CH

[illegible]

- K-patch High CH

[illegible]

**[Folder Closed Status]**

- K-patch Low CH

[illegible]

- K-patch Mid CH

[illegible]

- K-patch High CH

No.	Machine	Type	Area ID	Area ID 2	Area ID 3	Area ID 4	Area ID 5	Area ID 6	Area ID 7	Area ID 8	Area ID 9	Area ID 10	Area ID 11	Area ID 12	Area ID 13	Area ID 14	Area ID 15	Area ID 16	Area ID 17	Area ID 18	Area ID 19	Area ID 20	Area ID 21	Area ID 22	Area ID 23	Area ID 24	Area ID 25	Area ID 26	Area ID 27	Area ID 28	Area ID 29	Area ID 30	Area ID 31	Area ID 32	Area ID 33	Area ID 34	Area ID 35	Area ID 36	Area ID 37	Area ID 38	Area ID 39	Area ID 40	Area ID 41	Area ID 42	Area ID 43	Area ID 44	Area ID 45	Area ID 46	Area ID 47	Area ID 48	Area ID 49	Area ID 50	Area ID 51	Area ID 52	Area ID 53	Area ID 54	Area ID 55	Area ID 56	Area ID 57	Area ID 58	Area ID 59	Area ID 60	Area ID 61	Area ID 62	Area ID 63	Area ID 64	Area ID 65	Area ID 66	Area ID 67	Area ID 68	Area ID 69	Area ID 70	Area ID 71	Area ID 72	Area ID 73	Area ID 74	Area ID 75	Area ID 76	Area ID 77	Area ID 78	Area ID 79	Area ID 80	Area ID 81	Area ID 82	Area ID 83	Area ID 84	Area ID 85	Area ID 86	Area ID 87	Area ID 88	Area ID 89	Area ID 90	Area ID 91	Area ID 92	Area ID 93	Area ID 94	Area ID 95	Area ID 96	Area ID 97	Area ID 98	Area ID 99	Area ID 100	Area ID 101	Area ID 102	Area ID 103	Area ID 104	Area ID 105	Area ID 106	Area ID 107	Area ID 108	Area ID 109	Area ID 110	Area ID 111	Area ID 112	Area ID 113	Area ID 114	Area ID 115	Area ID 116	Area ID 117	Area ID 118	Area ID 119	Area ID 120	Area ID 121	Area ID 122	Area ID 123	Area ID 124	Area ID 125	Area ID 126	Area ID 127	Area ID 128	Area ID 129	Area ID 130	Area ID 131	Area ID 132	Area ID 133	Area ID 134	Area ID 135	Area ID 136	Area ID 137	Area ID 138	Area ID 139	Area ID 140	Area ID 141	Area ID 142	Area ID 143	Area ID 144	Area ID 145	Area ID 146	Area ID 147	Area ID 148	Area ID 149	Area ID 150	Area ID 151	Area ID 152	Area ID 153	Area ID 154	Area ID 155	Area ID 156	Area ID 157	Area ID 158	Area ID 159	Area ID 160	Area ID 161	Area ID 162	Area ID 163	Area ID 164	Area ID 165	Area ID 166	Area ID 167	Area ID 168	Area ID 169	Area ID 170	Area ID 171	Area ID 172	Area ID 173	Area ID 174	Area ID 175	Area ID 176	Area ID 177	Area ID 178	Area ID 179	Area ID 180	Area ID 181	Area ID 182	Area ID 183	Area ID 184	Area ID 185	Area ID 186	Area ID 187	Area ID 188	Area ID 189	Area ID 190	Area ID 191	Area ID 192	Area ID 193	Area ID 194	Area ID 195	Area ID 196	Area ID 197	Area ID 198	Area ID 199	Area ID 200	Area ID 201	Area ID 202	Area ID 203	Area ID 204	Area ID 205	Area ID 206	Area ID 207	Area ID 208	Area ID 209	Area ID 210	Area ID 211	Area ID 212	Area ID 213	Area ID 214	Area ID 215	Area ID 216	Area ID 217	Area ID 218	Area ID 219	Area ID 220	Area ID 221	Area ID 222	Area ID 223	Area ID 224	Area ID 225	Area ID 226	Area ID 227	Area ID 228	Area ID 229	Area ID 230	Area ID 231	Area ID 232	Area ID 233	Area ID 234	Area ID 235	Area ID 236	Area ID 237	Area ID 238	Area ID 239	Area ID 240	Area ID 241	Area ID 242	Area ID 243	Area ID 244	Area ID 245	Area ID 246	Area ID 247	Area ID 248	Area ID 249	Area ID 250	Area ID 251	Area ID 252	Area ID 253	Area ID 254	Area ID 255	Area ID 256	Area ID 257	Area ID 258	Area ID 259	Area ID 260	Area ID 261	Area ID 262	Area ID 263	Area ID 264	Area ID 265	Area ID 266	Area ID 267	Area ID 268	Area ID 269	Area ID 270	Area ID 271	Area ID 272	Area ID 273	Area ID 274	Area ID 275	Area ID 276	Area ID 277	Area ID 278	Area ID 279	Area ID 280	Area ID 281	Area ID 282	Area ID 283	Area ID 284	Area ID 285	Area ID 286	Area ID 287	Area ID 288	Area ID 289	Area ID 290	Area ID 291	Area ID 292	Area ID 293	Area ID 294	Area ID 295	Area ID 296	Area ID 297	Area ID 298	Area ID 299	Area ID 300	Area ID 301	Area ID 302	Area ID 303	Area ID 304	Area ID 305	Area ID 306	Area ID 307	Area ID 308	Area ID 309	Area ID 310	Area ID 311	Area ID 312	Area ID 313	Area ID 314	Area ID 315	Area ID 316	Area ID 317	Area ID 318	Area ID 319	Area ID 320	Area ID 321	Area ID 322	Area ID 323	Area ID 324	Area ID 325	Area ID 326	Area ID 327	Area ID 328	Area ID 329	Area ID 330	Area ID 331	Area ID 332	Area ID 333	Area ID 334	Area ID 335	Area ID 336	Area ID 337	Area ID 338	Area ID 339	Area ID 340	Area ID 341	Area ID 342	Area ID 343	Area ID 344	Area ID 345	Area ID 346	Area ID 347	Area ID 348	Area ID 349	Area ID 350	Area ID 351	Area ID 352	Area ID 353	Area ID 354	Area ID 355	Area ID 356	Area ID 357	Area ID 358	Area ID 359	Area ID 360	Area ID 361	Area ID 362	Area ID 363	Area ID 364	Area ID 365	Area ID 366	Area ID 367	Area ID 368	Area ID 369	Area ID 370	Area ID 371	Area ID 372	Area ID 373	Area ID 374	Area ID 375	Area ID 376	Area ID 377	Area ID 378	Area ID 379	Area ID 380	Area ID 381	Area ID 382	Area ID 383	Area ID 384	Area ID 385	Area ID 386	Area ID 387	Area ID 388	Area ID 389	Area ID 390	Area ID 391	Area ID 392	Area ID 393	Area ID 394	Area ID 395	Area ID 396	Area ID 397	Area ID 398	Area ID 399	Area ID 400	Area ID 401	Area ID 402	Area ID 403	Area ID 404	Area ID 405	Area ID 406	Area ID 407	Area ID 408	Area ID 409	Area ID 410	Area ID 411	Area ID 412	Area ID 413	Area ID 414	Area ID 415	Area ID 416	Area ID 417	Area ID 418	Area ID 419	Area ID 420	Area ID 421	Area ID 422	Area ID 423	Area ID 424	Area ID 425	Area ID 426	Area ID 427	Area ID 428	Area ID 429	Area ID 430	Area ID 431	Area ID 432	Area ID 433	Area ID 434	Area ID 435	Area ID 436	Area ID 437	Area ID 438	Area ID 439	Area ID 440	Area ID 441	Area ID 442	Area ID 443	Area ID 444	Area ID 445	Area ID 446	Area ID 447	Area ID 448	Area ID 449	Area ID 450	Area ID 451	Area ID 452	Area ID 453	Area ID 454	Area ID 455	Area ID 456	Area ID 457	Area ID 458	Area ID 459	Area ID 460	Area ID 461	Area ID 462	Area ID 463	Area ID 464	Area ID 465	Area ID 466	Area ID 467	Area ID 468	Area ID 469	Area ID 470	Area ID 471	Area ID 472	Area ID 473	Area ID 474	Area ID 475	Area ID 476	Area ID 477	Area ID 478	Area ID 479	Area ID 480	Area ID 481	Area ID 482	Area ID 483	Area ID 484	Area ID 485	Area ID 486	Area ID 487	Area ID 488	Area ID 489	Area ID 490	Area ID 491	Area ID 492	Area ID 493	Area ID 494	Area ID 495	Area ID 496	Area ID 497	Area ID 498	Area ID 499	Area ID 500	Area ID 501	Area ID 502	Area ID 503	Area ID 504	Area ID 505	Area ID 506	Area ID 507	Area ID 508	Area ID 509	Area ID 510	Area ID 511	Area ID 512	Area ID 513	Area ID 514	Area ID 515	Area ID 516	Area ID 517	Area ID 518	Area ID 519	Area ID 520	Area ID 521	Area ID 522	Area ID 523	Area ID 524	Area ID 525	Area ID 526	Area ID 527	Area ID 528	Area ID 529	Area ID 530	Area ID 531	Area ID 532	Area ID 533	Area ID 534	Area ID 535	Area ID 536	Area ID 537	Area ID 538	Area ID 539	Area ID 540	Area ID 541	Area ID 542	Area ID 543	Area ID 544	Area ID 545	Area ID 546	Area ID 547	Area ID 548	Area ID 549	Area ID 550	Area ID 551	Area ID 552	Area ID 553	Area ID 554	Area ID 555	Area ID 556	Area ID 557	Area ID 558	Area ID 559	Area ID 560	Area ID 561	Area ID 562	Area ID 563	Area ID 564	Area ID 565	Area ID 566	Area ID 567	Area ID 568	Area ID 569	Area ID 570	Area ID 571	Area ID 572	Area ID 573	Area ID 574	Area ID 575	Area ID 576	Area ID 577	Area ID 578	Area ID 579	Area ID 580	Area ID 581	Area ID 582	Area ID 583	Area ID 584	Area ID 585	Area ID 586	Area ID 587	Area ID 588	Area ID 589	Area ID 590	Area ID 591	Area ID 592	Area ID 593	Area ID 594	Area ID 595	Area ID 596	Area ID 597	Area ID 598	Area ID 599	Area ID 600	Area ID 601	Area ID 602	Area ID 603	Area ID 604	Area ID 605	Area ID 606	Area ID 607	Area ID 608	Area ID 609	Area ID 610	Area ID 611	Area ID 612	Area ID 613	Area ID 614	Area ID 615	Area ID 616	Area ID 617	Area ID 618	Area ID 619	Area ID 620	Area ID 621	Area ID 622	Area ID 623	Area ID 624	Area ID 625	Area ID 626	Area ID 627	Area ID 628	Area ID 629	Area ID 630	Area ID 631	Area ID 632	Area ID 633	Area ID 634	Area ID 635	Area ID 636	Area ID 637	Area ID 638	Area ID 639	Area ID 640	Area ID 641	Area ID 642	Area ID 643	Area ID 644	Area ID 645	Area ID 646	Area ID 647	Area ID 648	Area ID 649	Area ID 650	Area ID 651	Area ID 652	Area ID 653	Area ID 654	Area ID 655	Area ID 656	Area ID 657	Area ID 658	Area ID 659	Area ID 660	Area ID 661	Area ID 662	Area ID 663	Area ID 664	Area ID 665	Area ID 666	Area ID 667	Area ID 668	Area ID 669	Area ID 670	Area ID 671	Area ID 672	Area ID 673	Area ID 674	Area ID 675	Area ID 676	Area ID 677	Area ID 678	Area ID 679	Area ID 680	Area ID 681	Area ID 682	Area ID 683	Area ID 684	Area ID 685	Area ID 686	Area ID 687	Area ID 688	Area ID 689	Area ID 690	Area ID 691	Area ID 692	Area ID 693	Area ID 694	Area ID 695	Area ID 696	Area ID 697	Area ID 698	Area ID 699	Area ID 700	Area ID 701	Area ID 702	Area ID 703	Area ID 704	Area ID 705	Area ID 706	Area ID 707	Area ID 708	Area ID 709	Area ID 710	Area ID 711	Area ID 712	Area ID 713	Area ID 714	Area ID 715	Area ID 716	Area ID 717	Area ID 718	Area ID 719	Area ID 720	Area ID 721	Area ID 722	Area ID 723	Area ID 724	Area ID 725	Area ID 726	Area ID 727	Area ID 728	Area ID 729	Area ID 730	Area ID 731	Area ID 732	Area ID 733	Area ID 734	Area ID 735	Area ID 736	Area ID 737	Area ID 738	Area ID 739	Area ID 740	Area ID 741	Area ID 742	Area ID 743	Area ID 744	Area ID 745	Area ID 746	Area ID 747	Area ID 748	Area ID 749	Area ID 750	Area ID 751	Area ID 752	Area ID 753	Area ID 754	Area ID 755	Area ID 756	Area ID 757	Area ID 758	Area ID 759	Area ID 760	Area ID 761	Area ID 762	Area ID 763	Area ID 764	Area ID 765	Area ID 766	Area ID 767	Area ID 768	Area ID 769	Area ID 770	Area ID 771	Area ID 772	Area ID 773	Area ID 774	Area ID 775	Area ID 776	Area ID 777	Area ID 778	Area ID 779	Area ID 780	Area ID 781	Area ID 782	Area ID 783	Area ID 784	Area ID 785	Area ID 786	Area ID 787	Area ID 788	Area ID 789	Area ID 790	Area ID 791	Area ID 792	Area ID 793	Area ID 794	Area ID 795	Area ID 796	Area ID 797	Area ID 798	Area ID 799	Area ID 800	Area ID 801	Area ID 802	Area ID 803	Area ID 804	Area ID 805	Area ID 806	Area ID 807	Area ID 808	Area ID 809	Area ID 810	Area ID 811	Area ID 812	Area ID 813	Area ID 814	Area ID 815	Area ID 816	Area ID 817	Area ID 818	Area ID 819	Area ID 820	Area ID 821	Area ID 822	Area ID 823	Area ID 824	Area ID 825	Area ID 826	Area ID 827	Area ID 828	Area ID 829	Area ID 830	Area ID 831	Area ID 832	Area ID 833	Area ID 834	Area ID 835	Area ID 836	Area ID 837	Area ID 838	Area ID 839	Area ID 840	Area ID 841	Area ID 842	Area ID 843	Area ID 844	Area ID 845	Area ID 846	Area ID 847	Area ID 848	Area ID 849	Area ID 850	Area ID 851	Area ID 852	Area ID 853	Area ID 854	Area ID 855	Area ID 856	Area ID 857	Area ID 858	Area ID 859	Area ID 860	Area ID 861	Area ID 862	Area ID 863	Area ID 864	Area ID 865	Area ID 866	Area ID 867	Area ID 868	Area ID 869	Area ID 870	Area ID 871	Area ID 872	Area ID 873	Area ID 874	Area ID 875	Area ID 876	Area ID 877	Area ID 878	Area ID 879	Area ID 880	Area ID 881	Area ID 882	Area ID 883	Area ID 884	Area ID 885	Area ID 886	Area ID 887	Area ID 888	Area ID 889	Area ID 890
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Table 5. PD of Ant K – patch antenna (24GHz – n258)

**[Folder Open Status]**

- K-patch Low CH

[illegible]

- K-patch Mid CH

[illegible]

- K-patch High CH

[illegible]

**[Folder Closed Status]**

- K-patch Low CH

[illegible]

- K-patch Mid CH

[illegible]

- K-patch High CH

No.	Machine	Type	Room No. 1	Room No. 2	Room No. 3	Room No. 4	Room No. 5	Room No. 6	Room No. 7	Room No. 8	Room No. 9	Room No. 10	Room No. 11	Room No. 12	Room No. 13	Room No. 14	Room No. 15	Room No. 16	Room No. 17	Room No. 18	Room No. 19	Room No. 20	Room No. 21	Room No. 22	Room No. 23	Room No. 24	Room No. 25	Room No. 26	Room No. 27	Room No. 28	Room No. 29	Room No. 30	Room No. 31	Room No. 32	Room No. 33	Room No. 34	Room No. 35	Room No. 36	Room No. 37	Room No. 38	Room No. 39	Room No. 40	Room No. 41	Room No. 42	Room No. 43	Room No. 44	Room No. 45	Room No. 46	Room No. 47	Room No. 48	Room No. 49	Room No. 50	Room No. 51	Room No. 52	Room No. 53	Room No. 54	Room No. 55	Room No. 56	Room No. 57	Room No. 58	Room No. 59	Room No. 60	Room No. 61	Room No. 62	Room No. 63	Room No. 64	Room No. 65	Room No. 66	Room No. 67	Room No. 68	Room No. 69	Room No. 70	Room No. 71	Room No. 72	Room No. 73	Room No. 74	Room No. 75	Room No. 76	Room No. 77	Room No. 78	Room No. 79	Room No. 80	Room No. 81	Room No. 82	Room No. 83	Room No. 84	Room No. 85	Room No. 86	Room No. 87	Room No. 88	Room No. 89	Room No. 90	Room No. 91	Room No. 92	Room No. 93	Room No. 94	Room No. 95	Room No. 96	Room No. 97	Room No. 98	Room No. 99	Room No. 100	Room No. 101	Room No. 102	Room No. 103	Room No. 104	Room No. 105	Room No. 106	Room No. 107	Room No. 108	Room No. 109	Room No. 110	Room No. 111	Room No. 112	Room No. 113	Room No. 114	Room No. 115	Room No. 116	Room No. 117	Room No. 118	Room No. 119	Room No. 120	Room No. 121	Room No. 122	Room No. 123	Room No. 124	Room No. 125	Room No. 126	Room No. 127	Room No. 128	Room No. 129	Room No. 130	Room No. 131	Room No. 132	Room No. 133	Room No. 134	Room No. 135	Room No. 136	Room No. 137	Room No. 138	Room No. 139	Room No. 140	Room No. 141	Room No. 142	Room No. 143	Room No. 144	Room No. 145	Room No. 146	Room No. 147	Room No. 148	Room No. 149	Room No. 150	Room No. 151	Room No. 152	Room No. 153	Room No. 154	Room No. 155	Room No. 156	Room No. 157	Room No. 158	Room No. 159	Room No. 160	Room No. 161	Room No. 162	Room No. 163	Room No. 164	Room No. 165	Room No. 166	Room No. 167	Room No. 168	Room No. 169	Room No. 170	Room No. 171	Room No. 172	Room No. 173	Room No. 174	Room No. 175	Room No. 176	Room No. 177	Room No. 178	Room No. 179	Room No. 180	Room No. 181	Room No. 182	Room No. 183	Room No. 184	Room No. 185	Room No. 186	Room No. 187	Room No. 188	Room No. 189	Room No. 190	Room No. 191	Room No. 192	Room No. 193	Room No. 194	Room No. 195	Room No. 196	Room No. 197	Room No. 198	Room No. 199	Room No. 200	Room No. 201	Room No. 202	Room No. 203	Room No. 204	Room No. 205	Room No. 206	Room No. 207	Room No. 208	Room No. 209	Room No. 210	Room No. 211	Room No. 212	Room No. 213	Room No. 214	Room No. 215	Room No. 216	Room No. 217	Room No. 218	Room No. 219	Room No. 220	Room No. 221	Room No. 222	Room No. 223	Room No. 224	Room No. 225	Room No. 226	Room No. 227	Room No. 228	Room No. 229	Room No. 230	Room No. 231	Room No. 232	Room No. 233	Room No. 234	Room No. 235	Room No. 236	Room No. 237	Room No. 238	Room No. 239	Room No. 240	Room No. 241	Room No. 242	Room No. 243	Room No. 244	Room No. 245	Room No. 246	Room No. 247	Room No. 248	Room No. 249	Room No. 250	Room No. 251	Room No. 252	Room No. 253	Room No. 254	Room No. 255	Room No. 256	Room No. 257	Room No. 258	Room No. 259	Room No. 260
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