FCC ID: A3LSMS947U

Power Density Simulation Report

Revision A

October 1st, 2025

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 module, ANSYS Electromagnetics suite version 2024.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 2024.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 2024.R2 (HFSS) is used. ANSYS Electromagnetics suite version 2024.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 2024.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 2024.R2 (HFSS), the accuracy of converged results depends on the delta S. Figure 1 is an example of adaptive mesh of the device (cross-section of top view).

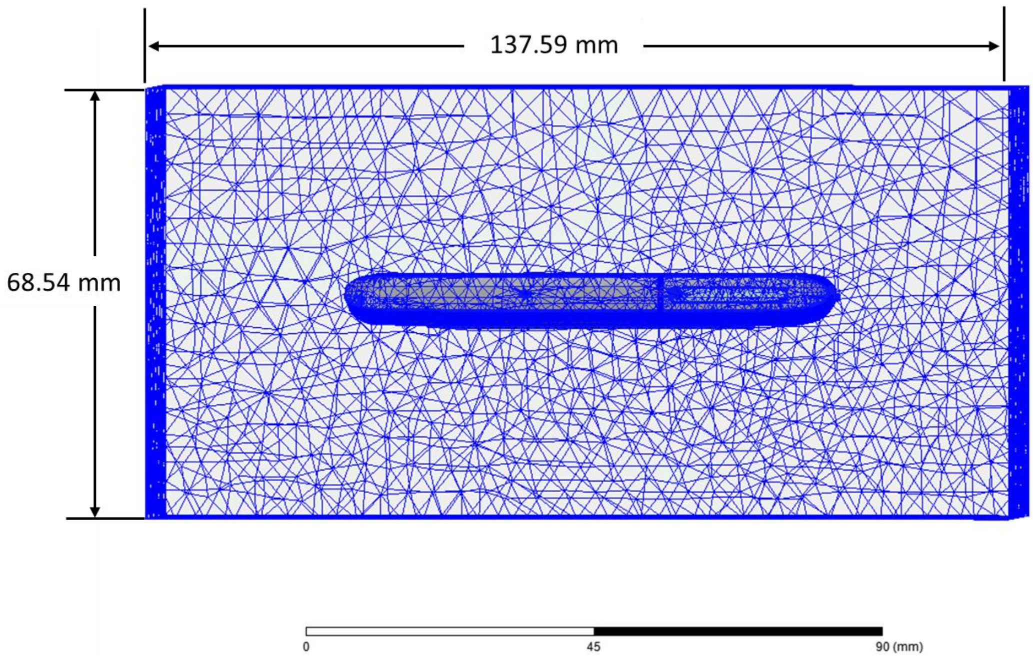


Figure 1 Example of the adaptive mesh technique (Top view)

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:

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

$\langle\vec{S}\rangle$ 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 2024.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:

$$\mathrm{PD}_{av} = \frac{1}{A}\int_A \langle\vec{S}\rangle \cdot ds = \frac{1}{2A_{av}}\iint_{A_{av}} \|Re\{ExH^*\}\|\, dA$$

, 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 $4\mathrm{cm}^2$.

1.2 Simulation setup

1.2.1 3D modeling

Figure 2 shows the simulation model which is mounted a 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 L. The modeling contains the entire EUT to enable a Smart transmit GEN1, as well. Ant L is placed on the right side and antennas are facing the right side of the device.

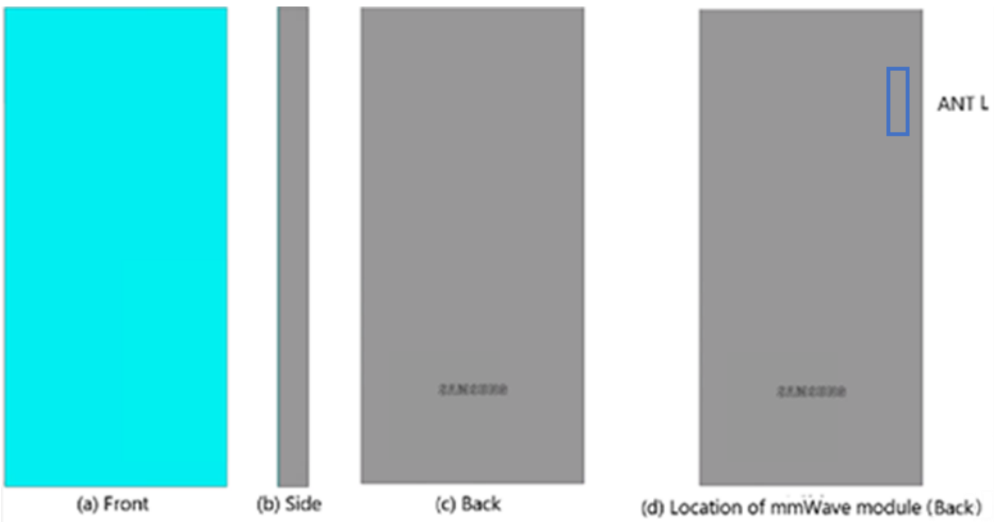


Figure 2. Simulation model which is mounted a mmWave antenna module

1.2.2 PD evaluation planes

Table 1 shows the PD evaluation planes for each mmWave antenna module and Figure 3 shows the PD evaluation planes and truncation 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 L	O	O	O	O	O	O

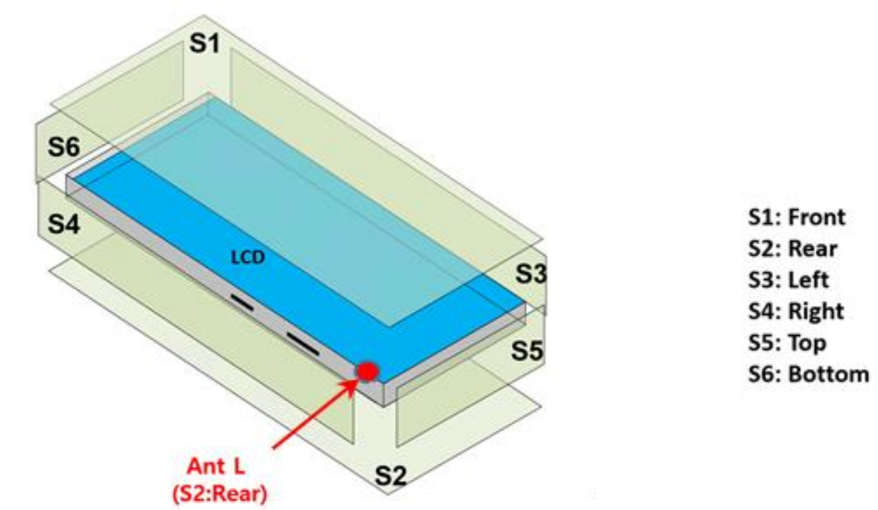


Figure 3. PD evaluation planes

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 2024.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 modules, 40 mm spacing from the device for each surfaces were adopted. This distance is sufficiently large enough for "Qualcomm IPLG script" to extract valid E- and H-fields from all adjacent exposure surfaces of the EUT.

1.2.4 Source excitation condition

The number of antenna ports of ANT L for source excitation are the same. The antenna port of ANT L is divided into 10 ports for n261 and n258 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.

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).

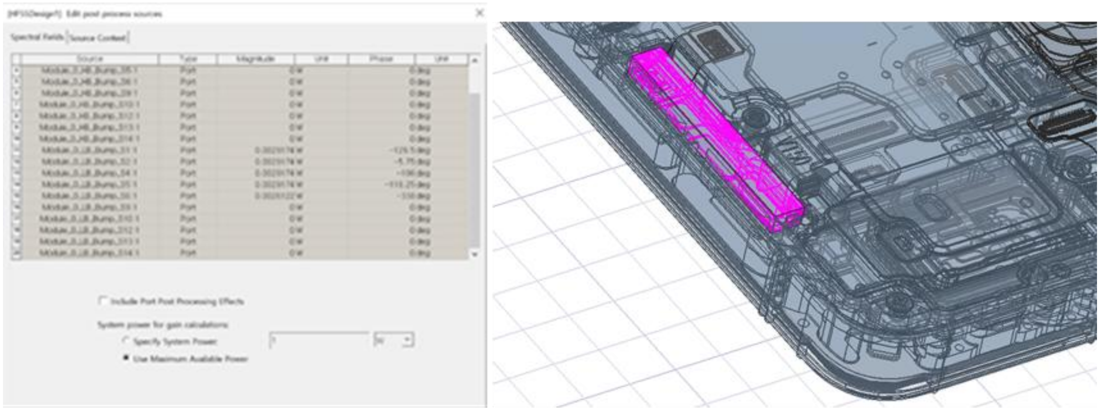


Figure 4. An example of port excitation (ANT L)

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.

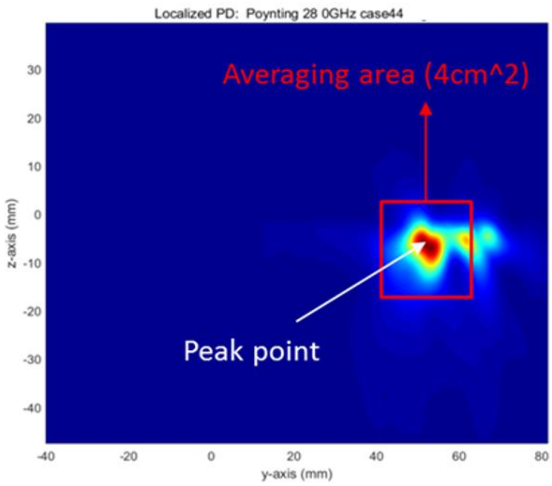
1.2.5 Condition of simulation completion

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.

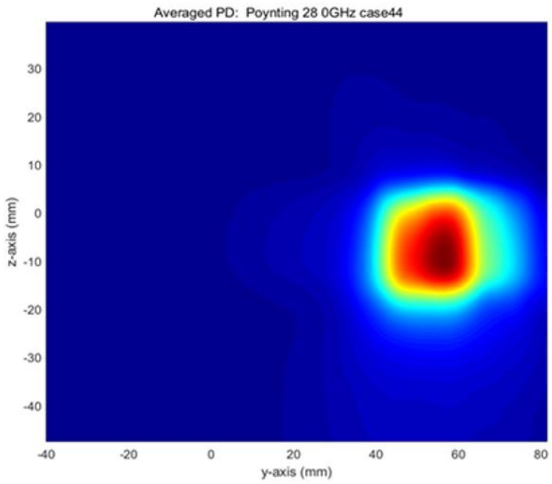
2. Simulation verification

2.1 Spatial-averaged power density and sim.power$_{limit}$

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 cm^2 at 2.5 mm intervals of the point power density result. Figure 5 shows examples of the distribution plot of point power density and the averaged power density.



(a) Point power density



(b) Averaged power density

Figure 5. Power density distribution (Example)

For the Smart Transmit, the "Qualcomm Input Power Limit Generator(Qualcomm IPLG script)" were used to assess the mutual coupling between all the mmWave module and all the beams in the codebook for each mmWave module. Once the script is done with assessment, it will provide the sim.power$_{limit}$ for all the beams for all three channels for the specified PD_design_target. This mode take the minimum sim.power$_{limit}$ out of all three channels (low, mid and high) and use the resulted sim.power$_{limit}$.

2.2 Comparison between simulation, measurement

In this section, the simulated-power density distributions and measured-power density distributions are compared to each mmWave antenna. Furthermore, to verify the Smart transmit GEN1, the PD distributions printing out from the "Qualcomm IPLG script" are added.

"Qualcomm IPLG script" prints the simulated 4cm^2 averaged PD values at the reference level (6dBm) for all channels on all surfaces.

Based on comparison of power density distributions, the power densities of simulated, measured and the "Qualcomm IPLG Script" have a good correlation. The discrepancy in amplitude between the "Qualcomm IPLG Script" 4cm^2 averaged power density and measured 4cm^2 averaged power density is considered as housing influence and used in determining input power limit for each beam for RF exposure compliance.

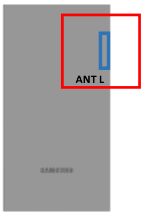
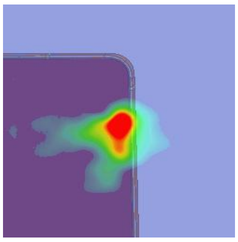
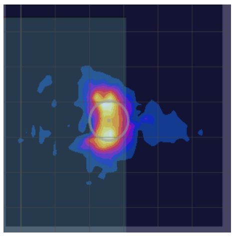
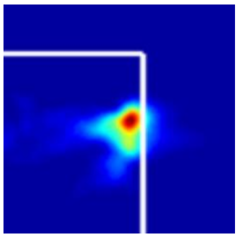
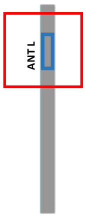
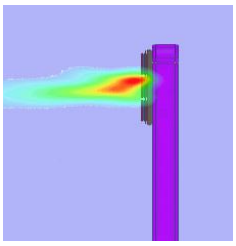
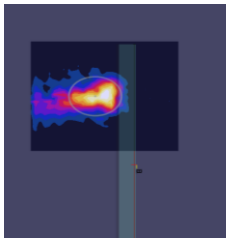
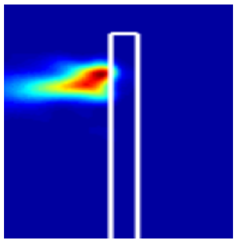
The input powers per each active port are listed below for both Simulation and Measurement validation and power density characterization. For Simulation, these values were entered directly into HFSS model. For measurement, FTM S/W was used to input these values for each active port also.

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

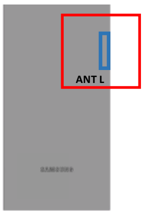
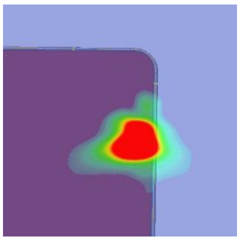
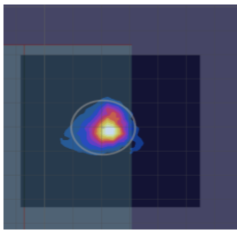
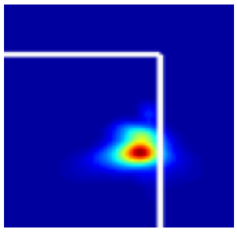
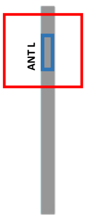
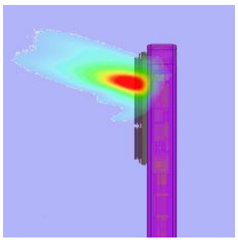
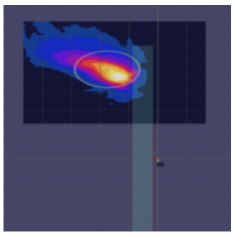
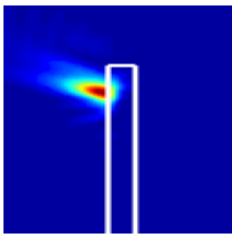
* The below simulation and measurement result were performed at 2mm evaluation distance and 28GHz / 38.5GHz / 24.8 GHz. The *input.power.limit* was determined based on below results.

Band	**Channel**	**Module**	**Type**	**Side**	**Beam ID**	**PLS (10 dBm)**	**Sim. PD (mW/cm2)**	**Meas. PD (mW/cm2) * Circle Avg**
n261	**Mid Ch. 2077915 (27924.96 MHz)**	L	Patch	Rear	19	60	1.447	0.944
				Left			0.850	0.615
				Rear	276		2.297	1.670
				Left	268		1.163	0.865
n260	**Mid Ch. 2254165 (38499.96 MHz)**	L	Patch	Rear	16	60	1.470	1.080
				Left			0.911	0.515
				Rear	275		1.134	1.090
				Left			0.696	0.304
n258	**Mid Ch. 2025833 (24800.04 MHz)**	L	Patch	Rear	20	60	1.101	0.718
				Rear	276		1.942	1.770

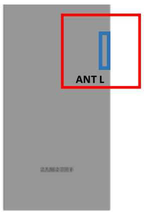
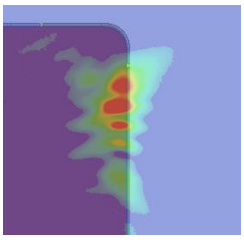
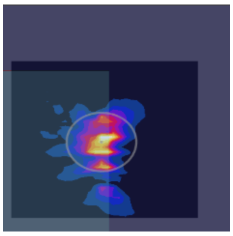
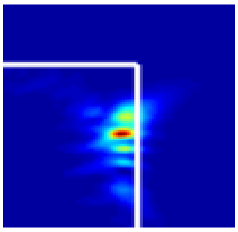
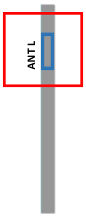
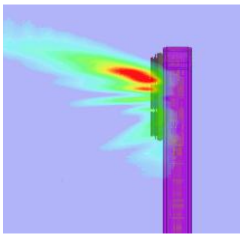
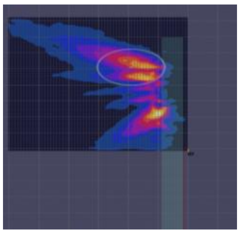
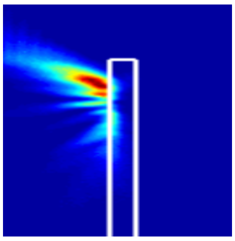
Table 2-1, n261 ANT L-Patch

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm IPLG Script
19	S2 (Rear)				
	S3 (Left)				

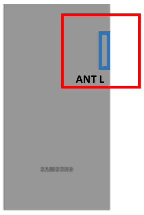
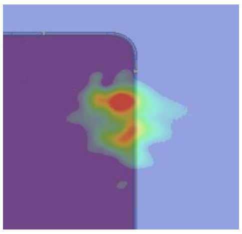
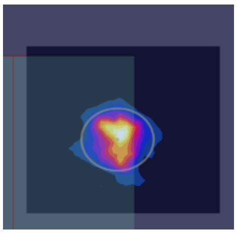
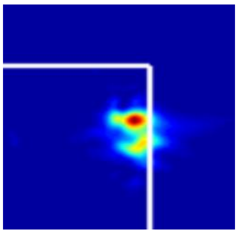
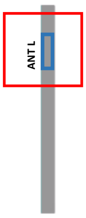
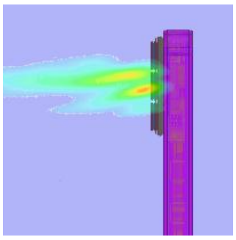
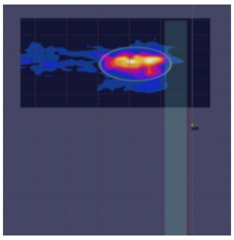
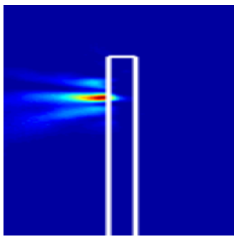
- Table 2-2, n261 ANT L-Patch

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm IPLG Script
276	S2 (Rear)				
268	S3 (Left)				

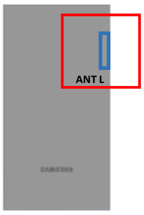
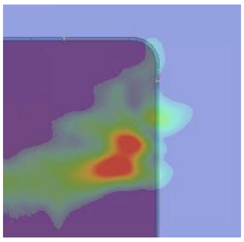
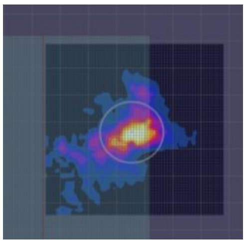
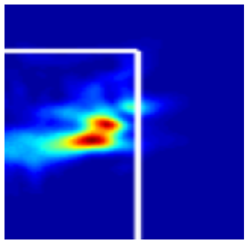
- Table 2-3, n260 ANT L-Patch

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm IPLG Script
16	S2 (Rear)				
	S3 (Left)				

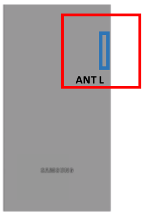
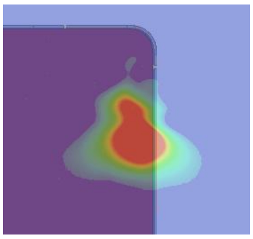
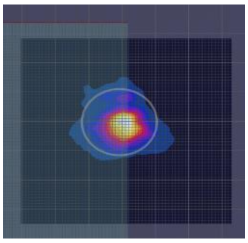
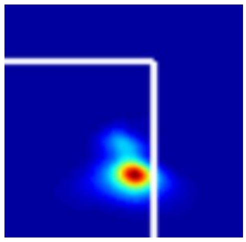
- Table 2-4, n260 ANT L-Patch

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm IPLG Script
275	S2 (Rear)				
	S3 (Left)				

- Table 2-5, n258 ANT L-Patch

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm IPLG Script
20	S2 (Rear)				

- Table 2-6, n258 ANT L-Patch

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm IPLG Script
276	S2 (Rear)				

The Smart transmit GEN1 cannot be finalized until the additional verifications are performed and passed. Follow the below steps for verifications in the mid channel:

VERIFICATION 1: Use "Qualcomm IPLG script" to print the PD plots for all the beams selected and evaluated for model validation.

- Throughout above comparisons (Table 2-1 to 2-6), the model validation including IPLG script were verified.

This model take "GEN2_SUB6" mode, thus, only verification 1 is required.

3. Simulation results

This section shows the PD simulation results of Ant L at 28GHz, 39GHz and 24GHz for each evaluation plane specified in Table 1 at two separation distances of 2mm and 10mm. The ratio of PD exposure from front surface to the worst surface at 2mm, and the ratio of PD exposure from 2mm to 10mm 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.

3.1 PD for Low/Mid/High Channel at 28GHz / 39GHz / 24GHz

3.1.1 Ant L– Patch Antenna

Table 3 to 5 show the PD simulation evaluation of Ant L patch antenna at 28GHz / 39GHz / 24GHz for the all surfaces.

Table 3. PD of Ant L – patch antenna (28GHz – n261)

- L–patch Low CH

						4cm2 PD(mW/cm2)							max ratio out of all beams at 2mm evaluation distance					
													7.1%	61.0%	30.1%	2.5%	12.4%	100.0%
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	per Beam Back-off (dB)	ratio (Right 2mm)/(worst-surface 2mm)	ratio (Left 2mm)/(worst-surface 2mm)	ratio (Top 2mm)/(worst-surface 2mm)	ratio (Bottom 2mm)/(worst-surface 2mm)	ratio (Fomt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)
1	M	Patch	0		1	0.01	0.11	0.01	0.00	0.01	0.27		2.3%	40.0%	2.6%	1.5%	3.4%	100.0%
2			1		1	0.01	0.08	0.01	0.00	0.01	0.14		4.2%	54.9%	9.2%	1.4%	4.2%	100.0%
3			2		1	0.01	0.12	0.02	0.00	0.01	0.25		2.8%	47.6%	6.9%	0.4%	4.0%	100.0%
4			3		1	0.01	0.09	0.02	0.00	0.01	0.19		4.2%	47.9%	12.1%	0.5%	5.8%	100.0%
5			4		1	0.01	0.11	0.02	0.00	0.01	0.23		3.9%	47.8%	7.9%	0.4%	3.9%	100.0%
6			5		2	0.01	0.09	0.06	0.00	0.02	0.28		4.0%	30.9%	22.5%	1.1%	5.8%	100.0%
7			6		2	0.02	0.18	0.03	0.00	0.02	0.41		4.1%	44.2%	8.0%	0.7%	3.9%	100.0%
8			7		2	0.01	0.20	0.02	0.00	0.01	0.39		3.1%	50.3%	4.6%	0.5%	2.6%	100.0%
9			8		2	0.02	0.20	0.03	0.01	0.02	0.35		4.3%	55.9%	8.0%	2.0%	4.6%	100.0%
10			9		2	0.02	0.16	0.02	0.00	0.01	0.39		4.4%	42.2%	5.4%	0.8%	2.1%	100.0%
11			10		2	0.01	0.15	0.03	0.01	0.01	0.26		5.4%	57.5%	11.5%	1.9%	4.2%	100.0%
12			11		2	0.01	0.07	0.04	0.00	0.03	0.24		5.3%	29.2%	16.9%	1.2%	10.3%	100.0%
13			12		5	0.02	0.15	0.10	0.01	0.05	0.43		5.4%	34.7%	24.2%	1.6%	12.4%	100.0%
14			13		5	0.04	0.47	0.11	0.00	0.05	0.92		3.8%	50.9%	11.5%	0.4%	5.2%	100.0%
15			14		5	0.06	0.83	0.06	0.01	0.06	1.37		4.1%	61.0%	4.0%	0.4%	4.2%	100.0%
16			15		5	0.09	0.57	0.04	0.01	0.04	1.24		7.1%	46.4%	3.3%	0.6%	3.2%	100.0%
17			16		5	0.04	0.24	0.06	0.01	0.03	0.59		6.7%	40.6%	9.6%	1.3%	5.4%	100.0%
18			17		5	0.03	0.22	0.07	0.00	0.04	0.58		5.4%	37.4%	12.1%	0.5%	7.1%	100.0%
19			18		5	0.06	0.71	0.08	0.01	0.05	1.20		5.2%	59.4%	7.0%	0.4%	4.3%	100.0%
20			19		5	0.07	0.85	0.03	0.01	0.06	1.43		5.2%	59.4%	2.1%	0.4%	4.4%	100.0%
21			20		5	0.07	0.38	0.04	0.01	0.03	0.95		7.0%	39.4%	4.5%	0.6%	2.7%	100.0%
22			256		1	0.00	0.09	0.01	0.00	0.01	0.27		1.1%	33.2%	5.3%	1.5%	1.9%	100.0%
23			257		1	0.00	0.12	0.01	0.00	0.00	0.40		1.0%	30.8%	3.2%	0.7%	1.0%	100.0%
24			258		1	0.00	0.15	0.03	0.00	0.00	0.41		0.7%	36.2%	7.6%	0.5%	1.0%	100.0%
25			259		1	0.01	0.15	0.04	0.00	0.01	0.37		1.3%	40.9%	11.6%	0.5%	1.3%	100.0%
26			260		1	0.00	0.13	0.04	0.00	0.01	0.33		1.2%	40.6%	13.2%	0.6%	1.5%	100.0%
27			261		2	0.01	0.26	0.05	0.00	0.01	0.72		1.2%	36.5%	7.1%	0.4%	1.5%	100.0%
28			262		2	0.01	0.35	0.06	0.00	0.01	0.90		1.0%	39.0%	6.9%	0.2%	1.2%	100.0%
29			263		2	0.01	0.38	0.01	0.00	0.01	0.97		1.0%	38.5%	0.9%	0.4%	1.0%	100.0%
30			264		2	0.01	0.27	0.01	0.01	0.01	0.75		1.3%	35.7%	1.1%	1.5%	1.6%	100.0%
31			265		2	0.02	0.33	0.16	0.00	0.01	0.78		1.9%	42.7%	20.2%	0.3%	1.5%	100.0%
32			266		2	0.01	0.34	0.07	0.00	0.01	0.82		1.1%	41.3%	8.9%	0.5%	1.6%	100.0%
33			267		2	0.01	0.38	0.02	0.01	0.02	0.90		1.2%	41.6%	2.5%	0.8%	1.7%	100.0%
34			268		5	0.03	1.03	0.51	0.01	0.06	1.93		1.4%	53.2%	26.6%	0.3%	3.3%	100.0%
35			269		5	0.05	1.04	0.34	0.00	0.02	2.26		2.3%	46.0%	14.9%	0.1%	1.1%	100.0%
36			270		5	0.06	0.91	0.06	0.01	0.01	2.08		2.7%	43.5%	2.8%	0.2%	0.7%	100.0%
37			271		5	0.06	0.90	0.02	0.00	0.04	2.22		2.6%	40.4%	0.7%	0.1%	1.8%	100.0%
38			272		5	0.04	0.99	0.02	0.03	0.06	2.35		1.7%	42.0%	0.9%	1.3%	2.5%	100.0%
39			273		5	0.04	1.04	0.46	0.00	0.05	2.11		1.9%	49.1%	21.7%	0.1%	2.3%	100.0%
40			274		5	0.05	0.92	0.16	0.01	0.01	2.13		2.2%	43.4%	7.4%	0.2%	0.6%	100.0%
41			275		5	0.05	0.95	0.04	0.00	0.03	2.08		2.6%	45.7%	1.7%	0.1%	1.3%	100.0%
42			276		5	0.05	0.94	0.02	0.01	0.05	2.34		2.0%	40.1%	0.8%	0.3%	2.0%	100.0%
43			0	256	2	0.01	0.29	0.02	0.01	0.02	0.63		1.9%	45.9%	3.7%	2.2%	3.5%	100.0%
44			1	257	2	0.01	0.23	0.04	0.01	0.02	0.62		1.6%	37.5%	6.5%	1.3%	2.4%	100.0%
45			2	258	2	0.01	0.32	0.06	0.01	0.01	0.69		2.0%	46.1%	8.2%	0.7%	2.0%	100.0%
46			3	259	2	0.02	0.26	0.07	0.01	0.02	0.58		2.7%	45.1%	11.5%	0.7%	3.3%	100.0%
47			4	260	2	0.02	0.33	0.08	0.01	0.02	0.62		2.9%	52.8%	13.2%	0.8%	3.3%	100.0%
48			5	261	4	0.02	0.34	0.11	0.01	0.03	0.97		2.1%	34.7%	11.5%	0.7%	3.3%	100.0%
49			6	262	4	0.04	0.61	0.11	0.01	0.03	1.36		2.7%	44.9%	7.8%	0.6%	1.9%	100.0%
50			7	263	4	0.03	0.73	0.03	0.01	0.03	1.44		1.8%	50.8%	2.2%	0.6%	2.1%	100.0%
51			8	264	4	0.03	0.67	0.05	0.03	0.04	1.27		2.6%	52.6%	4.1%	2.5%	3.2%	100.0%
52			9	265	4	0.03	0.53	0.20	0.01	0.02	0.91		3.0%	58.1%	21.4%	0.8%	2.0%	100.0%
53			10	266	4	0.02	0.46	0.15	0.01	0.03	1.03		2.3%	44.6%	14.1%	1.4%	2.9%	100.0%
54			11	267	4	0.03	0.54	0.09	0.02	0.03	1.21		2.2%	44.3%	7.0%	1.2%	2.7%	100.0%
55			12	268	10	0.04	1.53	0.80	0.02	0.12	2.66		1.4%	57.7%	30.1%	0.6%	4.5%	100.0%
56			13	269	10	0.09	1.81	0.47	0.01	0.09	3.57		2.6%	50.8%	13.2%	0.3%	2.6%	100.0%
57			14	270	10	0.11	2.12	0.14	0.02	0.10	3.70		2.9%	57.4%	3.9%	0.5%	2.6%	100.0%
58			15	271	10	0.16	1.97	0.06	0.02	0.13	3.87		4.2%	50.8%	1.6%	0.4%	3.4%	100.0%
59			16	272	10	0.13	1.63	0.11	0.05	0.10	3.41		3.7%	47.8%	3.3%	1.5%	2.8%	100.0%
60			17	273	10	0.07	1.29	0.67	0.01	0.11	2.96		2.2%	43.5%	22.6%	0.3%	3.6%	100.0%
61			18	274	10	0.11	2.05	0.24	0.02	0.07	3.67		2.9%	56.0%	6.4%	0.5%	2.0%	100.0%
62			19	275	10	0.14	2.35	0.08	0.01	0.15	3.94		3.4%	59.5%	2.0%	0.3%	3.7%	100.0%
63			20	276	10	0.12	1.61	0.08	0.02	0.11	3.66		3.4%	44.1%	2.1%	0.5%	3.0%	100.0%

	4cm2 PD(mW/cm2) at 10mm evaluation distance						max ratio out of all beams at 10mm evaluation distance							4cm2 PD(mW/cm2) at 5mm evaluation distance		max ratio out of all beams at 5mm evaluation distance	
							66.4%	5.5%	29.0%	19.2%	2.1%	2.9%	66.4%			6.1%	85.6%
No.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(worst-surface 2mm)	ratio (Left 10mm)/(worst-surface 2mm)	ratio (Top 10mm)/(worst-surface 2mm)	ratio (Bottom 10mm)/(worst-surface 2mm)	ratio (Front 10mm)/(worst-surface 2mm)	ratio (Rear 10mm)/(worst-surface 2mm)	S1(Front)	S2(Rear)	ratio (Front 5mm)/(worst-surface 2mm)	ratio (Rear 5mm)/(worst-surface 2mm)
1	0.01	0.05	0.00	0.00	0.00	0.10	37.4%	1.9%	18.1%	1.5%	1.1%	1.5%	37.4%	0.01	0.18	2.6%	67.2%
2	0.01	0.03	0.01	0.00	0.00	0.06	44.4%	3.5%	22.5%	4.9%	0.7%	2.1%	44.4%	0.00	0.10	2.8%	70.4%
3	0.01	0.05	0.01	0.00	0.00	0.14	57.3%	2.8%	19.4%	3.6%	0.4%	1.6%	57.3%	0.01	0.20	2.0%	80.2%
4	0.01	0.03	0.01	0.00	0.01	0.11	56.3%	3.7%	17.4%	6.3%	0.5%	2.6%	56.3%	0.01	0.15	3.7%	77.9%
5	0.01	0.05	0.01	0.00	0.00	0.11	47.8%	3.5%	20.2%	4.4%	0.4%	1.8%	47.8%	0.01	0.17	2.6%	72.4%
6	0.01	0.04	0.03	0.00	0.01	0.12	45.1%	2.9%	13.1%	12.0%	0.7%	1.8%	45.1%	0.01	0.20	3.3%	72.4%
7	0.02	0.08	0.02	0.00	0.01	0.24	58.7%	3.9%	19.4%	4.6%	0.7%	1.7%	58.7%	0.01	0.33	2.4%	79.4%
8	0.01	0.09	0.01	0.00	0.01	0.20	51.8%	2.6%	22.4%	2.3%	0.5%	1.8%	51.8%	0.01	0.30	2.3%	76.5%
9	0.01	0.07	0.01	0.01	0.01	0.11	31.5%	2.6%	21.2%	3.4%	1.7%	2.6%	31.5%	0.01	0.22	3.7%	62.8%
10	0.01	0.07	0.01	0.00	0.00	0.17	43.0%	3.6%	17.4%	3.1%	0.5%	1.0%	43.0%	0.01	0.28	1.6%	71.2%
11	0.01	0.05	0.02	0.00	0.00	0.10	37.9%	4.2%	17.2%	5.7%	1.5%	1.1%	37.9%	0.01	0.17	2.3%	64.0%
12	0.01	0.03	0.02	0.00	0.01	0.11	46.1%	4.1%	10.7%	7.4%	1.2%	2.9%	46.1%	0.01	0.17	5.8%	69.5%
13	0.02	0.07	0.04	0.01	0.01	0.19	44.4%	5.4%	16.2%	9.6%	1.4%	2.8%	44.4%	0.03	0.31	6.1%	73.2%
14	0.03	0.23	0.06	0.00	0.02	0.54	58.7%	3.1%	24.6%	6.4%	0.3%	2.5%	58.7%	0.04	0.70	3.8%	75.2%
15	0.05	0.40	0.03	0.00	0.04	0.90	65.6%	3.3%	28.9%	2.5%	0.3%	2.6%	65.6%	0.05	1.15	3.5%	83.8%
16	0.07	0.27	0.03	0.01	0.03	0.64	51.8%	5.5%	21.7%	2.1%	0.4%	2.3%	51.8%	0.03	0.93	2.8%	75.1%
17	0.03	0.09	0.03	0.01	0.01	0.24	40.0%	5.1%	15.9%	4.9%	1.2%	1.9%	40.0%	0.02	0.40	2.9%	68.0%
18	0.02	0.09	0.05	0.00	0.01	0.28	48.8%	4.0%	16.1%	8.1%	0.5%	2.4%	48.8%	0.02	0.42	4.0%	72.5%
19	0.05	0.33	0.05	0.00	0.03	0.79	66.1%	4.3%	27.8%	4.3%	0.3%	2.4%	66.1%	0.04	0.99	3.5%	82.8%
20	0.06	0.41	0.02	0.01	0.04	0.84	59.2%	4.4%	29.0%	1.1%	0.4%	2.8%	59.2%	0.05	1.16	3.6%	81.2%
21	0.05	0.17	0.03	0.00	0.02	0.44	45.8%	5.2%	17.7%	3.4%	0.4%	1.6%	45.8%	0.02	0.69	2.0%	72.1%
22	0.00	0.03	0.01	0.00	0.00	0.12	44.9%	1.1%	10.2%	3.4%	1.5%	0.8%	44.9%	0.00	0.19	1.1%	71.7%
23	0.00	0.04	0.01	0.00	0.00	0.18	45.0%	0.7%	8.7%	2.2%	0.5%	0.2%	45.0%	0.00	0.30	0.5%	73.4%
24	0.00	0.04	0.02	0.00	0.00	0.19	46.0%	0.5%	10.0%	4.9%	0.5%	0.5%	46.0%	0.00	0.30	0.7%	73.1%
25	0.00	0.04	0.02	0.00	0.00	0.13	36.0%	1.1%	11.8%	6.5%	0.5%	0.5%	36.0%	0.00	0.25	0.8%	65.9%
26	0.00	0.05	0.02	0.00	0.00	0.13	39.7%	0.9%	14.5%	7.4%	0.3%	0.6%	39.7%	0.00	0.23	0.9%	69.5%
27	0.01	0.07	0.04	0.00	0.00	0.39	54.1%	1.0%	10.2%	4.8%	0.3%	0.6%	54.1%	0.01	0.57	1.0%	78.8%
28	0.01	0.11	0.05	0.00	0.00	0.52	57.9%	0.7%	12.4%	5.0%	0.2%	0.4%	57.9%	0.01	0.74	0.9%	81.8%
29	0.01	0.12	0.01	0.00	0.00	0.53	54.8%	0.8%	12.3%	0.5%	0.3%	0.4%	54.8%	0.01	0.78	0.7%	80.2%
30	0.01	0.07	0.00	0.01	0.01	0.36	47.3%	0.9%	8.8%	0.5%	1.2%	0.7%	47.3%	0.01	0.55	1.1%	72.6%
31	0.01	0.13	0.09	0.00	0.01	0.37	47.0%	1.5%	16.9%	11.2%	0.3%	0.6%	47.0%	0.01	0.59	1.1%	75.5%
32	0.01	0.11	0.05	0.00	0.01	0.46	56.4%	0.7%	13.4%	6.2%	0.4%	0.6%	56.4%	0.01	0.66	1.1%	80.6%
33	0.01	0.12	0.01	0.01	0.01	0.44	49.2%	0.9%	12.8%	1.4%	0.6%	0.7%	49.2%	0.01	0.69	1.2%	76.4%
34	0.02	0.42	0.33	0.00	0.03	0.84	43.5%	0.8%	21.8%	17.2%	0.2%	1.4%	43.5%	0.04	1.37	2.3%	71.0%
35	0.04	0.46	0.18	0.00	0.01	1.36	60.3%	1.7%	20.5%	7.8%	0.1%	0.5%	60.3%	0.02	1.87	0.8%	82.8%
36	0.04	0.41	0.04	0.00	0.01	1.33	63.9%	2.0%	19.7%	1.7%	0.2%	0.3%	63.9%	0.01	1.74	0.5%	83.8%
37	0.04	0.37	0.01	0.00	0.02	1.43	64.2%	1.8%	16.8%	0.5%	0.1%	1.0%	64.2%	0.03	1.87	1.4%	84.3%
38	0.03	0.37	0.01	0.02	0.03	1.24	52.7%	1.3%	15.9%	0.4%	0.9%	1.1%	52.7%	0.04	1.78	1.8%	75.5%
39	0.03	0.43	0.31	0.00	0.02	1.05	49.7%	1.4%	20.6%	14.5%	0.1%	1.0%	49.7%	0.03	1.61	1.6%	76.3%
40	0.04	0.42	0.08	0.00	0.01	1.39	65.3%	1.6%	19.6%	3.8%	0.2%	0.3%	65.3%	0.01	1.82	0.4%	85.6%
41	0.04	0.42	0.02	0.00	0.01	1.30	62.4%	2.0%	20.3%	0.8%	0.1%	0.7%	62.4%	0.02	1.74	1.0%	83.3%
42	0.03	0.38	0.01	0.01	0.03	1.45	62.1%	1.4%	16.2%	0.4%	0.2%	1.2%	62.1%	0.04	1.95	1.6%	83.3%
43	0.01	0.12	0.02	0.01	0.01	0.28	44.7%	1.6%	18.7%	2.7%	1.8%	1.4%	44.7%	0.01	0.46	2.2%	73.0%
44	0.01	0.09	0.02	0.01	0.01	0.26	42.5%	1.5%	15.1%	3.4%	1.1%	0.8%	42.5%	0.01	0.43	1.6%	70.1%
45	0.01	0.10	0.04	0.01	0.01	0.37	54.4%	1.7%	15.0%	5.4%	0.7%	0.9%	54.4%	0.01	0.54	1.3%	78.9%
46	0.01	0.09	0.04	0.00	0.01	0.25	43.2%	2.2%	14.9%	6.2%	0.5%	1.5%	43.2%	0.01	0.41	2.4%	70.7%
47	0.01	0.12	0.05	0.00	0.01	0.29	47.6%	2.3%	19.8%	7.3%	0.7%	1.5%	47.6%	0.01	0.45	2.3%	73.7%
48	0.02	0.12	0.07	0.01	0.01	0.53	55.0%	1.9%	12.8%	7.7%	0.5%	1.1%	55.0%	0.02	0.77	2.0%	79.1%
49	0.03	0.22	0.07	0.01	0.01	0.81	59.4%	2.4%	16.5%	5.3%	0.5%	0.9%	59.4%	0.02	1.10	1.3%	81.3%
50	0.02	0.28	0.02	0.01	0.01	0.81	56.4%	1.3%	19.8%	1.3%	0.6%	0.9%	56.4%	0.02	1.15	1.4%	79.7%
51	0.02	0.21	0.02	0.03	0.02	0.51	39.9%	1.7%	16.6%	1.8%	2.1%	1.7%	39.9%	0.03	0.83	2.5%	65.5%
52	0.02	0.20	0.11	0.01	0.01	0.44	48.2%	2.4%	21.9%	12.3%	0.5%	0.9%	48.2%	0.01	0.69	1.3%	75.4%
53	0.02	0.18	0.09	0.01	0.01	0.56	53.8%	2.0%	17.2%	8.7%	1.2%	1.1%	53.8%	0.02	0.78	1.8%	75.5%
54	0.02	0.15	0.04	0.01	0.01	0.65	53.3%	1.9%	12.6%	3.1%	1.2%	1.1%	53.3%	0.02	0.94	1.8%	77.9%
55	0.04	0.57	0.51	0.01	0.05	1.24	46.5%	1.3%	21.2%	19.2%	0.4%	1.8%	46.5%	0.08	1.91	2.9%	71.6%
56	0.07	0.84	0.23	0.01	0.04	2.21	62.1%	2.1%	23.4%	6.5%	0.2%	1.2%	62.1%	0.07	2.94	2.0%	82.5%
57	0.08	0.98	0.10	0.01	0.06	2.39	64.7%	2.3%	26.5%	2.7%	0.3%	1.6%	64.7%	0.08	3.09	2.1%	83.6%
58	0.13	0.86	0.05	0.01	0.08	2.35	60.8%	3.4%	22.1%	1.2%	0.3%	2.1%	60.8%	0.11	3.19	2.8%	82.4%
59	0.09	0.53	0.05	0.04	0.05	1.69	49.5%	2.7%	15.6%	1.6%	1.1%	1.4%	49.5%	0.07	2.51	2.1%	73.6%
60	0.04	0.53	0.45	0.01	0.05	1.57	53.1%	1.4%	17.7%	15.1%	0.2%	1.7%	53.1%	0.08	2.32	2.6%	78.3%
61	0.10	0.95	0.14	0.01	0.04	2.43	66.4%	2.6%	25.9%	3.8%	0.4%	1.2%	66.4%	0.06	3.11	1.6%	84.9%
62	0.12	1.08	0.05	0.01	0.09	2.36	59.9%	3.0%	27.4%	1.3%	0.3%	2.2%	59.9%	0.12	3.23	3.0%	82.0%
63	0.09	0.65	0.05	0.01	0.07	2.17	59.2%	2.5%	17.7%	1.4%	0.3%	1.8%	59.2%	0.09	3.00	2.4%	81.9%

- L–patch Mid CH

						4cm2 PD(mW/cm2)							max ratio out of all beams at 2mm evaluation distance					
													7.3%	61.0%	30.7%	2.6%	11.4%	100.0%
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	per Beam Back-off (dB)	ratio (Right 2mm)/(worst-surface 2mm)	ratio (Left 2mm)/(worst-surface 2mm)	ratio (Top 2mm)/(worst-surface 2mm)	ratio (Bottom 2mm)/(worst-surface 2mm)	ratio (Fomt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)
1	M	Patch	0		1	0.01	0.10	0.01	0.00	0.01	0.28		3.5%	36.0%	2.5%	1.1%	2.8%	100.0%
2			1		1	0.01	0.08	0.02	0.00	0.01	0.16		5.2%	48.4%	10.3%	1.3%	5.2%	100.0%
3			2		1	0.01	0.12	0.02	0.00	0.01	0.27		2.6%	46.4%	8.2%	0.4%	2.6%	100.0%
4			3		1	0.01	0.11	0.02	0.00	0.01	0.21		5.2%	50.7%	7.5%	0.5%	5.6%	100.0%
5			4		1	0.01	0.12	0.02	0.00	0.01	0.22		5.0%	53.7%	9.6%	0.5%	4.6%	100.0%
6			5		2	0.02	0.08	0.05	0.00	0.01	0.29		5.6%	28.8%	18.6%	1.1%	4.9%	100.0%
7			6		2	0.02	0.17	0.04	0.00	0.02	0.45		4.0%	38.8%	8.9%	0.4%	3.6%	100.0%
8			7		2	0.01	0.21	0.02	0.00	0.01	0.41		3.2%	49.9%	5.6%	0.5%	2.4%	100.0%
9			8		2	0.02	0.19	0.03	0.01	0.02	0.39		4.7%	48.4%	6.7%	1.8%	4.4%	100.0%
10			9		2	0.02	0.16	0.03	0.00	0.01	0.41		4.6%	38.2%	6.3%	0.7%	1.9%	100.0%
11			10		2	0.01	0.14	0.03	0.01	0.01	0.27		5.1%	52.4%	12.5%	2.6%	4.8%	100.0%
12			11		2	0.02	0.08	0.05	0.00	0.02	0.27		7.2%	30.9%	18.5%	1.1%	8.7%	100.0%
13			12		5	0.03	0.19	0.10	0.01	0.05	0.43		5.8%	43.7%	24.3%	1.6%	11.4%	100.0%
14			13		5	0.04	0.58	0.12	0.00	0.04	1.05		3.6%	55.0%	11.3%	0.3%	3.7%	100.0%
15			14		5	0.05	0.75	0.05	0.01	0.05	1.35		3.8%	55.5%	3.8%	0.4%	3.6%	100.0%
16			15		5	0.09	0.58	0.04	0.01	0.04	1.28		7.3%	45.6%	2.8%	0.6%	2.9%	100.0%
17			16		5	0.05	0.25	0.05	0.01	0.04	0.70		6.4%	35.2%	7.7%	1.4%	5.7%	100.0%
18			17		5	0.03	0.29	0.10	0.00	0.04	0.69		4.4%	41.8%	14.9%	0.4%	5.1%	100.0%
19			18		5	0.05	0.71	0.07	0.01	0.05	1.26		4.3%	56.3%	5.6%	0.6%	3.8%	100.0%
20			19		5	0.06	0.85	0.04	0.01	0.05	1.45		4.2%	58.7%	2.4%	0.4%	3.4%	100.0%
21			20		5	0.07	0.39	0.05	0.01	0.04	1.03		7.0%	38.1%	4.9%	0.8%	3.5%	100.0%
22			256		1	0.00	0.10	0.02	0.00	0.01	0.28		1.4%	34.3%	5.4%	1.1%	1.8%	100.0%
23			257		1	0.00	0.13	0.01	0.00	0.00	0.41		1.0%	31.3%	3.2%	0.5%	0.7%	100.0%
24			258		1	0.00	0.15	0.03	0.00	0.00	0.40		0.8%	36.6%	7.0%	0.5%	1.0%	100.0%
25			259		1	0.01	0.16	0.05	0.00	0.01	0.38		1.3%	42.4%	12.5%	0.5%	1.3%	100.0%
26			260		1	0.00	0.15	0.05	0.00	0.00	0.34		1.2%	44.5%	14.9%	0.6%	1.2%	100.0%
27			261		2	0.01	0.28	0.05	0.00	0.01	0.75		1.3%	37.2%	6.8%	0.4%	1.7%	100.0%
28			262		2	0.01	0.34	0.06	0.00	0.01	0.89		1.0%	38.6%	6.4%	0.2%	1.1%	100.0%
29			263		2	0.01	0.37	0.01	0.00	0.01	0.97		1.0%	38.6%	0.9%	0.4%	1.0%	100.0%
30			264		2	0.01	0.28	0.01	0.01	0.01	0.77		1.6%	36.6%	1.0%	1.2%	1.7%	100.0%
31			265		2	0.01	0.38	0.18	0.00	0.01	0.82		1.7%	46.7%	21.4%	0.2%	1.7%	100.0%
32			266		2	0.01	0.33	0.07	0.00	0.01	0.81		0.9%	40.9%	8.3%	0.4%	1.5%	100.0%
33			267		2	0.01	0.38	0.03	0.01	0.01	0.88		1.4%	43.4%	2.8%	0.7%	1.6%	100.0%
34			268		5	0.02	1.16	0.55	0.00	0.08	2.09		1.1%	55.7%	26.3%	0.1%	3.6%	100.0%
35			269		5	0.05	1.05	0.34	0.00	0.02	2.29		2.1%	46.1%	14.7%	0.1%	1.0%	100.0%
36			270		5	0.05	0.97	0.08	0.00	0.02	2.10		2.6%	46.0%	3.6%	0.1%	0.7%	100.0%
37			271		5	0.06	0.89	0.02	0.01	0.04	2.20		2.9%	40.3%	0.9%	0.2%	1.7%	100.0%
38			272		5	0.04	1.06	0.02	0.03	0.06	2.36		1.5%	44.8%	1.0%	1.1%	2.7%	100.0%
39			273		5	0.04	1.10	0.46	0.00	0.05	2.21		1.8%	49.6%	20.9%	0.1%	2.4%	100.0%
40			274		5	0.05	0.96	0.15	0.01	0.01	2.13		2.2%	45.2%	6.9%	0.2%	0.6%	100.0%
41			275		5	0.05	0.98	0.04	0.00	0.03	2.11		2.6%	46.4%	2.0%	0.1%	1.3%	100.0%
42			276		5	0.05	0.91	0.02	0.01	0.05	2.30		2.2%	39.6%	0.9%	0.2%	2.0%	100.0%
43			0	256	2	0.02	0.29	0.03	0.01	0.02	0.64		2.7%	45.6%	4.8%	1.9%	3.6%	100.0%
44			1	257	2	0.01	0.24	0.04	0.01	0.01	0.64		1.9%	38.1%	6.4%	1.3%	2.0%	100.0%
45			2	258	2	0.01	0.31	0.07	0.00	0.01	0.68		2.1%	45.6%	9.7%	0.6%	1.9%	100.0%
46			3	259	2	0.02	0.29	0.07	0.01	0.02	0.61		3.0%	46.9%	11.8%	0.5%	3.3%	100.0%
47			4	260	2	0.02	0.33	0.09	0.00	0.02	0.59		3.1%	56.0%	15.7%	0.5%	3.6%	100.0%
48			5	261	4	0.03	0.35	0.13	0.01	0.04	1.01		2.5%	34.4%	12.7%	0.8%	3.7%	100.0%
49			6	262	4	0.04	0.63	0.12	0.01	0.03	1.44		2.4%	43.5%	8.1%	0.5%	1.9%	100.0%
50			7	263	4	0.03	0.77	0.04	0.01	0.03	1.46		2.0%	52.8%	2.7%	0.6%	2.0%	100.0%
51			8	264	4	0.04	0.57	0.05	0.03	0.05	1.29		3.0%	44.4%	4.2%	2.5%	3.5%	100.0%
52			9	265	4	0.03	0.55	0.22	0.01	0.02	0.92		2.9%	59.7%	23.4%	0.8%	2.2%	100.0%
53			10	266	4	0.03	0.48	0.14	0.02	0.03	1.04		2.4%	46.2%	13.6%	1.6%	2.5%	100.0%
54			11	267	4	0.03	0.55	0.10	0.01	0.03	1.19		2.7%	46.5%	8.2%	0.9%	2.9%	100.0%
55			12	268	10	0.04	1.45	0.90	0.01	0.15	2.91		1.3%	49.8%	30.7%	0.4%	5.0%	100.0%
56			13	269	10	0.09	2.04	0.51	0.01	0.08	3.67		2.5%	55.5%	14.0%	0.2%	2.2%	100.0%
57			14	270	10	0.11	2.08	0.13	0.02	0.09	3.67		2.9%	56.7%	3.4%	0.4%	2.5%	100.0%
58			15	271	10	0.19	2.10	0.06	0.02	0.13	3.89		4.8%	53.9%	1.5%	0.4%	3.3%	100.0%
59			16	272	10	0.15	1.76	0.10	0.05	0.13	3.61		4.1%	48.7%	2.7%	1.3%	3.5%	100.0%
60			17	273	10	0.06	1.57	0.72	0.01	0.12	3.09		2.1%	51.0%	23.2%	0.2%	3.8%	100.0%
61			18	274	10	0.10	2.11	0.22	0.01	0.07	3.68		2.7%	57.3%	5.9%	0.4%	1.9%	100.0%
62			19	275	10	0.12	2.40	0.08	0.01	0.14	3.92		3.1%	61.0%	1.9%	0.2%	3.4%	100.0%
63			20	276	10	0.14	1.77	0.09	0.02	0.12	3.72		3.8%	47.4%	2.3%	0.4%	3.3%	100.0%

	4cm2 PD(mW/cm2) at 10mm evaluation distance						max ratio out of all beams at 10mm evaluation distance							4cm2 PD(mW/cm2) at 5mm evaluation distance		max ratio out of all beams at 5mm evaluation distance	
							66.4%	5.6%	27.9%	21.0%	2.2%	2.8%	66.4%			5.6%	85.2%
No.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(worst-surface 2mm)	ratio (Left 10mm)/(worst-surface 2mm)	ratio (Top 10mm)/(worst-surface 2mm)	ratio (Bottom 10mm)/(worst-surface 2mm)	ratio (Front 10mm)/(worst-surface 2mm)	ratio (Rear 10mm)/(worst-surface 2mm)	S1(Front)	S2(Rear)	ratio (Front 5mm)/(worst-surface 2mm)	ratio (Rear 5mm)/(worst-surface 2mm)
1	0.01	0.04	0.00	0.00	0.01	0.12	41.3%	1.8%	15.2%	1.4%	0.7%	1.8%	41.3%	0.01	0.19	2.1%	68.6%
2	0.01	0.03	0.01	0.00	0.00	0.08	48.4%	3.9%	18.7%	4.5%	0.6%	1.9%	48.4%	0.00	0.11	2.6%	73.5%
3	0.01	0.05	0.01	0.00	0.00	0.15	55.1%	2.6%	18.0%	4.9%	0.4%	0.7%	55.1%	0.00	0.21	1.5%	78.7%
4	0.01	0.04	0.01	0.00	0.01	0.11	53.5%	4.2%	19.7%	2.8%	0.5%	2.3%	53.5%	0.01	0.17	3.3%	77.9%
5	0.01	0.05	0.01	0.00	0.01	0.11	51.4%	4.1%	23.9%	5.0%	0.5%	2.3%	51.4%	0.01	0.16	3.2%	74.8%
6	0.01	0.04	0.03	0.00	0.00	0.12	43.2%	3.5%	12.3%	8.8%	0.7%	1.4%	43.2%	0.01	0.20	2.8%	71.6%
7	0.02	0.07	0.03	0.00	0.01	0.25	56.3%	3.8%	16.3%	5.6%	0.4%	1.3%	56.3%	0.01	0.35	2.0%	78.0%
8	0.01	0.09	0.01	0.00	0.01	0.22	53.0%	2.4%	21.2%	2.9%	0.5%	1.5%	53.0%	0.01	0.32	1.9%	77.9%
9	0.01	0.07	0.01	0.01	0.01	0.15	38.3%	3.6%	18.7%	2.8%	1.6%	2.6%	38.3%	0.01	0.26	3.4%	66.6%
10	0.02	0.06	0.01	0.00	0.00	0.18	44.8%	3.6%	15.6%	3.4%	0.5%	1.0%	44.8%	0.01	0.30	1.5%	72.0%
11	0.01	0.05	0.02	0.01	0.00	0.10	37.7%	4.0%	16.8%	6.2%	2.2%	1.5%	37.7%	0.01	0.18	2.6%	65.6%
12	0.01	0.03	0.02	0.00	0.01	0.11	42.6%	4.9%	12.1%	7.9%	0.8%	2.6%	42.6%	0.01	0.18	5.3%	67.2%
13	0.02	0.08	0.05	0.01	0.01	0.22	50.2%	4.7%	18.7%	11.7%	1.4%	2.8%	50.2%	0.02	0.32	5.6%	74.3%
14	0.03	0.28	0.08	0.00	0.02	0.61	58.5%	3.1%	26.5%	7.1%	0.3%	2.2%	58.5%	0.03	0.81	3.1%	77.4%
15	0.04	0.36	0.04	0.00	0.03	0.86	63.9%	3.1%	27.0%	2.6%	0.3%	2.5%	63.9%	0.04	1.10	3.1%	81.8%
16	0.07	0.27	0.03	0.01	0.02	0.68	52.8%	5.6%	20.8%	2.0%	0.5%	1.6%	52.8%	0.03	0.97	2.2%	75.9%
17	0.03	0.09	0.03	0.01	0.02	0.33	46.2%	4.0%	12.9%	3.8%	1.3%	2.4%	46.2%	0.02	0.50	3.4%	71.4%
18	0.02	0.13	0.08	0.00	0.01	0.35	50.9%	3.2%	19.4%	11.1%	0.3%	1.9%	50.9%	0.02	0.50	2.9%	72.7%
19	0.05	0.33	0.05	0.00	0.03	0.80	63.7%	3.7%	26.0%	3.8%	0.3%	2.5%	63.7%	0.04	1.03	3.2%	82.0%
20	0.05	0.40	0.02	0.01	0.03	0.86	59.2%	3.7%	27.9%	1.2%	0.3%	2.0%	59.2%	0.04	1.17	2.7%	80.6%
21	0.06	0.18	0.03	0.01	0.02	0.51	49.5%	5.3%	17.1%	2.9%	0.6%	2.0%	49.5%	0.03	0.76	2.6%	73.9%
22	0.00	0.03	0.01	0.00	0.00	0.13	45.0%	1.1%	9.3%	3.9%	1.1%	0.7%	45.0%	0.00	0.20	1.1%	71.1%
23	0.00	0.04	0.01	0.00	0.00	0.18	44.5%	0.7%	9.0%	2.2%	0.5%	0.2%	44.5%	0.00	0.30	0.5%	73.3%
24	0.00	0.04	0.02	0.00	0.00	0.19	46.6%	0.8%	10.5%	4.5%	0.5%	0.3%	46.6%	0.00	0.29	0.5%	73.7%
25	0.00	0.05	0.03	0.00	0.00	0.14	36.9%	1.1%	12.5%	7.2%	0.5%	0.5%	36.9%	0.00	0.25	0.8%	67.1%
26	0.00	0.05	0.03	0.00	0.00	0.13	38.8%	0.9%	15.8%	8.1%	0.6%	0.6%	38.8%	0.00	0.23	0.9%	69.3%
27	0.01	0.07	0.04	0.00	0.01	0.40	53.3%	0.9%	9.7%	4.8%	0.4%	0.7%	53.3%	0.01	0.59	1.1%	78.0%
28	0.01	0.11	0.04	0.00	0.00	0.52	58.5%	0.8%	12.2%	4.6%	0.2%	0.4%	58.5%	0.01	0.73	0.8%	82.2%
29	0.01	0.12	0.01	0.00	0.00	0.53	54.3%	0.8%	12.0%	0.5%	0.3%	0.4%	54.3%	0.01	0.77	0.6%	79.8%
30	0.01	0.07	0.00	0.01	0.01	0.38	49.5%	1.3%	9.7%	0.5%	1.0%	0.7%	49.5%	0.01	0.56	1.2%	73.7%
31	0.01	0.15	0.10	0.00	0.01	0.38	46.0%	1.2%	18.0%	11.9%	0.2%	0.7%	46.0%	0.01	0.62	1.2%	75.1%
32	0.01	0.11	0.05	0.00	0.01	0.46	57.0%	0.7%	13.1%	5.9%	0.4%	0.6%	57.0%	0.01	0.66	1.0%	81.0%
33	0.01	0.12	0.01	0.01	0.01	0.44	49.4%	1.0%	13.3%	1.6%	0.6%	0.7%	49.4%	0.01	0.68	1.1%	76.6%
34	0.01	0.47	0.36	0.00	0.03	0.93	44.3%	0.6%	22.4%	17.4%	0.1%	1.5%	44.3%	0.05	1.49	2.4%	71.2%
35	0.04	0.47	0.18	0.00	0.01	1.39	60.6%	1.7%	20.6%	7.7%	0.1%	0.4%	60.6%	0.02	1.90	0.7%	83.0%
36	0.04	0.43	0.05	0.00	0.01	1.32	63.0%	2.0%	20.7%	2.4%	0.1%	0.4%	63.0%	0.01	1.74	0.6%	82.8%
37	0.05	0.37	0.01	0.00	0.02	1.39	63.2%	2.1%	16.9%	0.6%	0.2%	0.9%	63.2%	0.03	1.84	1.3%	83.7%
38	0.02	0.39	0.01	0.02	0.03	1.27	53.9%	1.0%	16.5%	0.5%	0.8%	1.3%	53.9%	0.05	1.80	2.0%	76.3%
39	0.03	0.46	0.31	0.00	0.02	1.12	50.5%	1.2%	20.8%	14.0%	0.1%	1.0%	50.5%	0.04	1.69	1.6%	76.7%
40	0.04	0.44	0.08	0.00	0.01	1.38	65.0%	1.6%	20.5%	3.6%	0.1%	0.3%	65.0%	0.01	1.81	0.5%	85.2%
41	0.04	0.43	0.02	0.00	0.02	1.31	62.2%	2.0%	20.4%	0.8%	0.1%	0.7%	62.2%	0.02	1.76	1.0%	83.4%
42	0.04	0.36	0.01	0.01	0.02	1.42	61.7%	1.7%	15.5%	0.3%	0.2%	1.0%	61.7%	0.04	1.91	1.6%	83.0%
43	0.01	0.11	0.02	0.01	0.01	0.30	46.5%	1.7%	16.7%	3.3%	1.6%	1.6%	46.5%	0.01	0.47	2.2%	73.8%
44	0.01	0.10	0.02	0.01	0.01	0.28	43.8%	1.6%	14.9%	3.1%	1.1%	0.9%	43.8%	0.01	0.45	1.3%	71.3%
45	0.01	0.10	0.05	0.00	0.01	0.37	53.7%	1.8%	15.0%	6.9%	0.4%	0.7%	53.7%	0.01	0.54	1.3%	78.6%
46	0.02	0.10	0.04	0.00	0.01	0.26	42.9%	2.6%	16.1%	6.7%	0.5%	1.2%	42.9%	0.01	0.43	2.0%	71.1%
47	0.01	0.13	0.05	0.00	0.01	0.29	49.4%	2.4%	21.3%	8.5%	0.5%	1.9%	49.4%	0.02	0.44	2.7%	74.8%
48	0.02	0.12	0.08	0.01	0.01	0.54	53.5%	1.9%	12.3%	7.6%	0.6%	1.1%	53.5%	0.02	0.79	2.0%	78.2%
49	0.03	0.22	0.09	0.01	0.01	0.78	54.3%	2.1%	15.5%	5.9%	0.4%	0.8%	54.3%	0.02	1.13	1.2%	78.5%
50	0.02	0.29	0.02	0.01	0.02	0.83	56.7%	1.4%	19.8%	1.4%	0.5%	1.0%	56.7%	0.02	1.17	1.5%	79.7%
51	0.03	0.22	0.02	0.03	0.02	0.56	43.7%	1.9%	17.3%	1.8%	2.1%	1.7%	43.7%	0.03	0.87	2.5%	67.5%
52	0.02	0.21	0.12	0.01	0.01	0.45	48.7%	2.4%	23.0%	13.3%	0.5%	1.0%	48.7%	0.01	0.70	1.5%	75.8%
53	0.02	0.19	0.08	0.01	0.01	0.58	55.3%	1.8%	17.7%	7.9%	1.3%	1.1%	55.3%	0.02	0.81	1.6%	77.6%
54	0.02	0.17	0.06	0.01	0.01	0.63	53.2%	1.8%	14.6%	4.7%	0.8%	1.2%	53.2%	0.02	0.92	1.9%	77.4%
55	0.03	0.55	0.61	0.01	0.06	1.35	46.3%	1.0%	19.0%	21.0%	0.3%	2.0%	46.3%	0.10	2.06	3.3%	70.8%
56	0.07	0.92	0.29	0.01	0.04	2.28	62.2%	2.0%	24.9%	7.8%	0.2%	1.1%	62.2%	0.06	3.03	1.7%	82.7%
57	0.09	0.97	0.08	0.01	0.06	2.42	66.1%	2.4%	26.4%	2.3%	0.3%	1.6%	66.1%	0.08	3.10	2.1%	84.6%
58	0.15	0.92	0.05	0.01	0.08	2.36	60.7%	3.7%	23.6%	1.2%	0.3%	1.9%	60.7%	0.10	3.21	2.6%	82.5%
59	0.09	0.58	0.05	0.04	0.06	1.87	51.7%	2.5%	16.0%	1.4%	1.1%	1.7%	51.7%	0.09	2.70	2.6%	74.8%
60	0.05	0.64	0.50	0.01	0.05	1.65	53.4%	1.5%	20.7%	16.3%	0.2%	1.7%	53.4%	0.09	2.41	2.8%	78.0%
61	0.08	0.96	0.14	0.01	0.04	2.44	66.4%	2.1%	26.1%	3.7%	0.3%	1.2%	66.4%	0.06	3.12	1.6%	85.0%
62	0.11	1.09	0.05	0.01	0.08	2.38	60.6%	2.8%	27.7%	1.2%	0.2%	2.0%	60.6%	0.11	3.23	2.8%	82.4%
63	0.10	0.73	0.04	0.01	0.07	2.22	59.6%	2.7%	19.5%	1.2%	0.3%	2.0%	59.6%	0.10	3.05	2.7%	82.0%

- L–patch High CH

No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2) S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	per Beam Back-off (dB)	max ratio out of all beams at 2mm evaluation distance: ratio (Right 2mm)/(worst-surface 2mm)	ratio (Left 2mm)/(worst-surface 2mm)	ratio (Top 2mm)/(worst-surface 2mm)	ratio (Bottom 2mm)/(worst-surface 2mm)	ratio (Fomt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)
													7.9%	58.5%	28.6%	3.4%	6.9%	100.0%
1			0		1	0.01	0.08	0.01	0.00	0.01	0.26		3.1%	29.7%	3.1%	1.2%	2.7%	100.0%
2			1		1	0.01	0.06	0.02	0.00	0.01	0.15		6.0%	38.4%	12.6%	1.3%	4.6%	100.0%
3			2		1	0.01	0.10	0.02	0.00	0.01	0.26		3.5%	37.9%	9.0%	0.4%	2.3%	100.0%
4			3		1	0.01	0.11	0.01	0.00	0.01	0.23		4.8%	46.7%	6.2%	0.4%	5.7%	100.0%
5			4		1	0.01	0.11	0.02	0.00	0.01	0.23		3.5%	48.5%	7.9%	0.9%	3.5%	100.0%
6			5		2	0.02	0.09	0.05	0.00	0.01	0.33		4.8%	26.0%	14.4%	1.2%	3.3%	100.0%
7			6		2	0.02	0.14	0.04	0.00	0.01	0.47		4.0%	30.2%	8.7%	0.4%	2.3%	100.0%
8			7		2	0.02	0.16	0.02	0.00	0.01	0.43		4.2%	36.8%	4.2%	0.7%	1.6%	100.0%
9			8		2	0.02	0.15	0.03	0.01	0.02	0.37		5.4%	41.7%	8.4%	2.4%	4.1%	100.0%
10			9		2	0.03	0.10	0.04	0.00	0.01	0.37		6.7%	27.3%	9.4%	0.5%	1.6%	100.0%
11			10		2	0.01	0.13	0.05	0.01	0.01	0.23		5.6%	53.8%	20.1%	3.4%	6.0%	100.0%
12			11		2	0.02	0.07	0.05	0.00	0.02	0.29		6.5%	24.1%	16.2%	1.0%	6.9%	100.0%
13			12		5	0.03	0.20	0.12	0.01	0.04	0.52		5.4%	39.1%	22.6%	1.5%	6.9%	100.0%
14			13		5	0.04	0.51	0.11	0.00	0.03	1.03		4.3%	49.2%	10.4%	0.4%	3.1%	100.0%
15			14		5	0.06	0.54	0.05	0.01	0.03	1.33		4.3%	40.7%	3.7%	0.4%	2.4%	100.0%
16			15		5	0.08	0.45	0.04	0.01	0.04	1.25		6.7%	35.6%	3.1%	0.5%	2.9%	100.0%
17			16		5	0.07	0.26	0.05	0.02	0.04	0.83		7.9%	30.9%	5.8%	1.8%	4.3%	100.0%
18			17		5	0.04	0.31	0.11	0.00	0.03	0.76		4.7%	40.5%	14.7%	0.5%	3.7%	100.0%
19			18		5	0.06	0.55	0.09	0.01	0.04	1.21		4.6%	45.1%	7.7%	0.4%	3.1%	100.0%
20			19		5	0.08	0.72	0.03	0.01	0.05	1.42		5.8%	50.9%	2.1%	0.4%	3.5%	100.0%
21			20		5	0.07	0.30	0.06	0.01	0.03	1.10		6.7%	27.1%	5.6%	0.8%	2.5%	100.0%
22			256		1	0.00	0.11	0.02	0.00	0.01	0.31		1.3%	35.7%	6.2%	1.3%	1.6%	100.0%
23			257		1	0.00	0.13	0.01	0.00	0.00	0.42		1.0%	30.6%	3.1%	0.5%	0.7%	100.0%
24			258		1	0.00	0.15	0.03	0.00	0.00	0.39		0.8%	37.3%	6.3%	0.8%	1.0%	100.0%
25			259		1	0.00	0.17	0.05	0.00	0.01	0.38		1.0%	44.2%	11.8%	0.5%	1.3%	100.0%
26			260		1	0.00	0.16	0.05	0.00	0.01	0.33		1.2%	46.4%	15.0%	0.6%	1.5%	100.0%
27			261		2	0.01	0.29	0.06	0.00	0.01	0.79		1.3%	36.6%	7.5%	0.5%	1.8%	100.0%
28			262		2	0.01	0.34	0.05	0.00	0.01	0.90		1.0%	37.6%	5.5%	0.1%	1.0%	100.0%
29			263		2	0.01	0.38	0.01	0.01	0.01	0.96		1.0%	39.1%	0.9%	0.5%	1.1%	100.0%
30			264		2	0.01	0.30	0.01	0.01	0.01	0.80		1.6%	37.6%	1.5%	1.3%	1.6%	100.0%
31			265		2	0.01	0.40	0.17	0.00	0.02	0.81		1.6%	49.1%	21.2%	0.2%	2.0%	100.0%
32	M	Patch	266		2	0.01	0.33	0.06	0.00	0.01	0.82		1.0%	39.9%	7.2%	0.4%	1.3%	100.0%
33			267		2	0.01	0.38	0.02	0.01	0.01	0.87		1.4%	43.3%	2.4%	0.8%	1.6%	100.0%
34			268		5	0.02	1.22	0.52	0.01	0.08	2.15		1.1%	56.8%	24.3%	0.2%	3.8%	100.0%
35			269		5	0.05	1.06	0.33	0.00	0.02	2.32		2.1%	45.7%	14.2%	0.0%	0.9%	100.0%
36			270		5	0.05	1.00	0.07	0.00	0.02	2.11		2.5%	47.3%	3.5%	0.1%	0.8%	100.0%
37			271		5	0.07	0.91	0.02	0.01	0.04	2.17		3.1%	41.7%	1.0%	0.2%	1.7%	100.0%
38			272		5	0.04	1.09	0.03	0.03	0.07	2.40		1.5%	45.6%	1.0%	1.0%	2.8%	100.0%
39			273		5	0.04	1.10	0.44	0.00	0.05	2.23		1.7%	49.3%	19.8%	0.1%	2.4%	100.0%
40			274		5	0.05	0.98	0.14	0.00	0.01	2.14		2.2%	45.8%	6.5%	0.1%	0.7%	100.0%
41			275		5	0.06	1.02	0.05	0.00	0.03	2.12		2.7%	48.0%	2.1%	0.1%	1.6%	100.0%
42			276		5	0.06	0.91	0.02	0.01	0.05	2.29		2.6%	39.7%	1.0%	0.2%	2.1%	100.0%
43			0	256	2	0.02	0.28	0.03	0.01	0.02	0.64		2.5%	43.7%	5.3%	2.2%	3.1%	100.0%
44			1	257	2	0.01	0.24	0.04	0.01	0.01	0.64		2.2%	37.8%	6.5%	1.3%	1.7%	100.0%
45			2	258	2	0.01	0.26	0.06	0.01	0.01	0.67		2.1%	38.9%	9.6%	1.0%	1.6%	100.0%
46			3	259	2	0.02	0.29	0.07	0.00	0.02	0.64		2.7%	45.4%	11.3%	0.6%	3.5%	100.0%
47			4	260	2	0.02	0.31	0.09	0.00	0.02	0.59		3.2%	52.6%	15.5%	0.7%	3.6%	100.0%
48			5	261	4	0.03	0.37	0.12	0.01	0.03	1.09		2.4%	33.7%	11.2%	0.5%	3.1%	100.0%
49			6	262	4	0.04	0.63	0.13	0.01	0.02	1.50		2.5%	41.8%	8.6%	0.3%	1.5%	100.0%
50			7	263	4	0.03	0.71	0.04	0.01	0.02	1.51		2.2%	46.9%	2.3%	0.7%	1.5%	100.0%
51			8	264	4	0.04	0.60	0.06	0.04	0.04	1.32		3.3%	45.3%	4.2%	2.7%	3.2%	100.0%
52			9	265	4	0.03	0.52	0.23	0.01	0.02	0.92		3.7%	56.7%	24.5%	0.8%	2.5%	100.0%
53			10	266	4	0.02	0.51	0.13	0.02	0.03	1.10		2.1%	45.7%	12.0%	1.5%	2.4%	100.0%
54			11	267	4	0.03	0.54	0.10	0.01	0.03	1.23		2.7%	43.7%	7.9%	1.1%	2.5%	100.0%
55			12	268	10	0.04	1.64	0.95	0.02	0.15	3.32		1.2%	49.4%	28.6%	0.5%	4.6%	100.0%
56			13	269	10	0.11	2.03	0.49	0.01	0.08	3.70		2.9%	54.8%	13.1%	0.2%	2.0%	100.0%
57			14	270	10	0.11	1.85	0.15	0.02	0.06	3.69		3.0%	49.9%	3.9%	0.4%	1.7%	100.0%
58			15	271	10	0.17	1.95	0.07	0.02	0.12	3.90		4.4%	50.0%	1.8%	0.5%	3.0%	100.0%
59			16	272	10	0.18	1.98	0.10	0.06	0.14	3.87		4.5%	51.1%	2.7%	1.6%	3.5%	100.0%
60			17	273	10	0.07	1.79	0.76	0.01	0.12	3.36		2.1%	53.2%	22.5%	0.4%	3.5%	100.0%
61			18	274	10	0.11	1.95	0.23	0.01	0.06	3.68		3.1%	53.1%	6.3%	0.3%	1.5%	100.0%
62			19	275	10	0.16	2.29	0.07	0.01	0.14	3.91		4.0%	58.5%	1.7%	0.3%	3.6%	100.0%
63			20	276	10	0.15	1.76	0.11	0.02	0.11	3.90		3.8%	45.0%	2.9%	0.5%	2.7%	100.0%

No.	4cm2 PD(mW/cm2) at 10mm evaluation distance S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	max ratio out of all beams at 10mm evaluation distance: ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(worst-surface 2mm)	ratio (Left 10mm)/(worst-surface 2mm)	ratio (Top 10mm)/(worst-surface 2mm)	ratio (Bottom 10mm)/(worst-surface 2mm)	ratio (Front 10mm)/(worst-surface 2mm)	ratio (Rear 10mm)/(worst-surface 2mm)	4cm2 PD(mW/cm2) at 5mm evaluation distance S1(Front)	S2(Rear)	max ratio out of all beams at 5mm evaluation distance: ratio (Front 5mm)/(worst-surface 2mm)	ratio (Rear 5mm)/(worst-surface 2mm)
							67.0%	5.3%	25.9%	20.0%	2.6%	2.4%	67.0%			4.5%	85.4%
1	0.01	0.03	0.01	0.00	0.00	0.11	43.4%	2.3%	11.3%	2.3%	0.8%	1.2%	43.4%	0.01	0.18	2.0%	70.3%
2	0.01	0.02	0.01	0.00	0.00	0.07	47.7%	4.0%	15.9%	6.0%	1.3%	1.3%	47.7%	0.00	0.11	2.6%	72.8%
3	0.01	0.04	0.01	0.00	0.00	0.14	56.3%	2.3%	14.5%	5.5%	0.4%	0.8%	56.3%	0.00	0.20	1.2%	78.1%
4	0.01	0.04	0.01	0.00	0.01	0.12	51.1%	4.0%	18.5%	2.6%	0.4%	2.2%	51.1%	0.01	0.17	3.5%	76.2%
5	0.01	0.04	0.01	0.00	0.00	0.12	52.4%	2.6%	18.5%	4.4%	0.4%	1.8%	52.4%	0.01	0.17	2.2%	75.8%
6	0.01	0.04	0.02	0.00	0.01	0.16	46.4%	3.0%	10.5%	7.2%	0.9%	1.5%	46.4%	0.01	0.24	2.1%	70.7%
7	0.02	0.06	0.03	0.00	0.00	0.26	53.9%	3.4%	12.3%	5.3%	0.4%	0.6%	53.9%	0.01	0.36	1.3%	76.5%
8	0.01	0.06	0.01	0.00	0.00	0.23	53.6%	3.0%	13.8%	2.1%	0.7%	0.7%	53.6%	0.01	0.33	1.2%	78.2%
9	0.02	0.06	0.01	0.01	0.01	0.16	43.9%	4.3%	16.8%	3.8%	1.9%	1.9%	43.9%	0.01	0.26	2.7%	69.9%
10	0.02	0.04	0.02	0.00	0.00	0.18	48.1%	5.3%	10.2%	5.9%	0.5%	0.5%	48.1%	0.00	0.28	1.1%	73.5%
11	0.01	0.04	0.03	0.01	0.00	0.09	36.8%	4.3%	18.4%	10.7%	2.6%	1.7%	36.8%	0.01	0.15	3.0%	65.0%
12	0.02	0.03	0.02	0.00	0.01	0.13	45.4%	5.2%	11.3%	7.9%	0.7%	2.4%	45.4%	0.01	0.20	4.5%	67.0%
13	0.02	0.08	0.07	0.01	0.01	0.22	41.4%	4.4%	14.9%	13.8%	1.3%	2.1%	41.4%	0.02	0.35	3.8%	67.4%
14	0.04	0.24	0.07	0.00	0.02	0.59	57.4%	3.8%	23.5%	6.4%	0.3%	1.8%	57.4%	0.03	0.79	2.4%	77.0%
15	0.05	0.24	0.03	0.00	0.02	0.86	64.5%	4.0%	18.2%	2.4%	0.3%	1.5%	64.5%	0.03	1.11	1.9%	83.0%
16	0.07	0.20	0.03	0.00	0.02	0.68	54.6%	5.3%	16.1%	2.2%	0.3%	1.2%	54.6%	0.02	0.95	1.8%	76.2%
17	0.04	0.09	0.02	0.01	0.02	0.40	47.8%	5.0%	10.3%	2.6%	1.6%	1.9%	47.8%	0.02	0.60	2.6%	72.3%
18	0.03	0.13	0.08	0.00	0.01	0.39	50.6%	3.8%	17.6%	10.5%	0.5%	1.6%	50.6%	0.02	0.55	2.5%	71.7%
19	0.05	0.24	0.06	0.00	0.02	0.77	63.1%	4.0%	19.9%	4.9%	0.3%	1.8%	63.1%	0.03	0.98	2.3%	81.1%
20	0.07	0.33	0.02	0.00	0.02	0.85	59.9%	4.7%	23.1%	1.4%	0.3%	1.5%	59.9%	0.04	1.14	2.5%	80.5%
21	0.05	0.13	0.03	0.01	0.01	0.56	51.1%	4.9%	11.9%	3.1%	0.5%	1.1%	51.1%	0.02	0.82	1.6%	74.4%
22	0.00	0.03	0.01	0.00	0.00	0.13	43.9%	1.0%	9.8%	4.3%	1.0%	0.7%	43.9%	0.00	0.21	1.3%	69.8%
23	0.00	0.04	0.01	0.00	0.00	0.18	44.3%	0.7%	9.2%	2.2%	0.5%	0.2%	44.3%	0.00	0.30	0.5%	73.0%
24	0.00	0.04	0.02	0.00	0.00	0.19	47.7%	0.5%	10.7%	4.3%	0.5%	0.5%	47.7%	0.00	0.29	0.8%	74.4%
25	0.00	0.05	0.03	0.00	0.00	0.15	38.0%	0.8%	12.8%	6.8%	0.5%	0.5%	38.0%	0.00	0.26	1.0%	68.3%
26	0.00	0.05	0.03	0.00	0.00	0.13	38.6%	0.9%	16.2%	8.1%	0.3%	0.9%	38.6%	0.00	0.23	1.2%	68.9%
27	0.01	0.08	0.04	0.00	0.01	0.42	53.4%	0.9%	9.7%	4.9%	0.4%	0.8%	53.4%	0.01	0.62	1.3%	78.1%
28	0.01	0.11	0.04	0.00	0.00	0.54	59.2%	0.8%	11.8%	4.1%	0.1%	0.4%	59.2%	0.01	0.75	0.7%	82.4%
29	0.01	0.12	0.00	0.00	0.00	0.52	53.9%	0.8%	12.3%	0.4%	0.4%	0.4%	53.9%	0.01	0.77	0.7%	79.4%
30	0.01	0.09	0.01	0.01	0.01	0.40	49.7%	1.3%	11.0%	0.8%	1.0%	0.8%	49.7%	0.01	0.60	1.1%	74.7%
31	0.01	0.15	0.10	0.00	0.01	0.37	45.9%	1.2%	18.9%	12.2%	0.2%	0.9%	45.9%	0.01	0.61	1.4%	74.9%
32	0.01	0.11	0.04	0.00	0.01	0.48	57.9%	0.7%	12.9%	5.2%	0.2%	0.6%	57.9%	0.01	0.67	1.0%	81.1%
33	0.01	0.12	0.01	0.01	0.01	0.43	49.8%	1.1%	13.2%	1.3%	0.7%	0.7%	49.8%	0.01	0.67	1.1%	76.7%
34	0.01	0.49	0.35	0.00	0.03	0.97	45.1%	0.7%	22.6%	16.3%	0.2%	1.6%	45.1%	0.06	1.54	2.6%	71.6%
35	0.04	0.47	0.18	0.00	0.01	1.42	61.0%	1.6%	20.3%	7.6%	0.0%	0.4%	61.0%	0.02	1.93	0.7%	83.2%
36	0.04	0.45	0.05	0.00	0.01	1.33	63.0%	1.9%	21.3%	2.3%	0.1%	0.4%	63.0%	0.01	1.74	0.6%	82.6%
37	0.05	0.39	0.02	0.00	0.02	1.36	62.6%	2.3%	17.7%	0.7%	0.2%	0.9%	62.6%	0.03	1.82	1.3%	83.5%
38	0.03	0.41	0.01	0.02	0.03	1.29	53.9%	1.1%	16.9%	0.6%	0.8%	1.4%	53.9%	0.05	1.83	2.1%	76.5%
39	0.03	0.46	0.30	0.00	0.02	1.15	51.3%	1.2%	20.4%	13.5%	0.1%	1.1%	51.3%	0.04	1.73	1.7%	77.3%
40	0.04	0.45	0.07	0.00	0.01	1.40	65.4%	1.7%	21.0%	3.3%	0.1%	0.3%	65.4%	0.01	1.83	0.5%	85.3%
41	0.04	0.46	0.02	0.00	0.02	1.32	62.0%	2.1%	21.4%	0.8%	0.1%	0.8%	62.0%	0.03	1.77	1.2%	83.2%
42	0.04	0.36	0.01	0.00	0.03	1.40	61.3%	1.8%	15.9%	0.5%	0.2%	1.1%	61.3%	0.04	1.89	1.6%	82.6%
43	0.01	0.09	0.03	0.01	0.01	0.29	45.3%	2.0%	14.6%	4.1%	1.6%	1.3%	45.3%	0.01	0.46	1.9%	72.4%
44	0.01	0.09	0.02	0.01	0.01	0.29	45.5%	1.6%	14.3%	3.5%	1.1%	0.8%	45.5%	0.01	0.46	1.1%	72.9%
45	0.01	0.08	0.05	0.00	0.01	0.36	53.8%	1.6%	12.6%	6.7%	0.6%	0.7%	53.8%	0.01	0.52	1.2%	77.6%
46	0.02	0.10	0.04	0.00	0.01	0.28	44.0%	2.4%	15.9%	6.8%	0.5%	1.3%	44.0%	0.01	0.45	2.2%	70.8%
47	0.01	0.11	0.05	0.00	0.01	0.29	49.7%	1.9%	18.7%	8.9%	0.5%	1.7%	49.7%	0.02	0.44	2.6%	74.6%
48	0.02	0.12	0.08	0.01	0.01	0.59	53.5%	1.9%	11.2%	7.1%	0.5%	1.1%	53.5%	0.02	0.85	1.9%	78.0%
49	0.03	0.22	0.10	0.00	0.01	0.81	53.6%	2.0%	14.6%	6.4%	0.3%	0.7%	53.6%	0.02	1.18	1.0%	78.3%
50	0.02	0.25	0.02	0.01	0.01	0.85	56.1%	1.5%	16.4%	1.0%	0.7%	0.7%	56.1%	0.02	1.21	1.1%	79.9%
51	0.03	0.23	0.03	0.03	0.02	0.61	46.3%	2.3%	17.3%	1.9%	2.1%	1.5%	46.3%	0.03	0.94	2.3%	71.5%
52	0.03	0.20	0.14	0.01	0.01	0.46	49.2%	2.8%	21.8%	14.7%	0.5%	1.1%	49.2%	0.02	0.70	1.7%	75.4%
53	0.02	0.19	0.09	0.01	0.01	0.62	55.7%	1.6%	16.9%	7.8%	1.2%	1.2%	55.7%	0.02	0.86	1.8%	78.0%
54	0.03	0.17	0.06	0.01	0.02	0.66	53.5%	2.1%	13.6%	4.6%	0.8%	1.2%	53.5%	0.02	0.96	1.9%	77.4%
55	0.03	0.60	0.66	0.01	0.07	1.52	45.9%	0.9%	18.0%	20.0%	0.3%	2.0%	45.9%	0.11	2.33	3.3%	70.0%
56	0.09	0.91	0.30	0.01	0.04	2.28	61.7%	2.4%	24.5%	8.0%	0.2%	1.0%	61.7%	0.06	3.05	1.5%	82.4%
57	0.09	0.82	0.10	0.01	0.04	2.44	65.9%	2.5%	22.3%	2.6%	0.3%	1.1%	65.9%	0.05	3.13	1.4%	84.7%
58	0.13	0.85	0.05	0.01	0.06	2.44	62.5%	3.4%	21.7%	1.3%	0.3%	1.6%	62.5%	0.09	3.26	2.3%	83.5%
59	0.10	0.70	0.05	0.05	0.07	2.04	52.6%	2.7%	18.0%	1.3%	1.2%	1.8%	52.6%	0.10	2.93	2.7%	75.6%
60	0.06	0.72	0.54	0.01	0.06	1.71	51.0%	1.7%	21.3%	15.9%	0.3%	1.6%	51.0%	0.09	2.57	2.6%	76.5%
61	0.09	0.87	0.14	0.01	0.03	2.46	67.0%	2.5%	23.6%	3.9%	0.2%	0.9%	67.0%	0.05	3.14	1.3%	85.4%
62	0.13	1.01	0.04	0.01	0.07	2.42	62.0%	3.2%	25.9%	1.1%	0.2%	1.8%	62.0%	0.11	3.25	2.7%	83.1%
63	0.10	0.72	0.07	0.01	0.06	2.37	60.8%	2.6%	18.4%	1.7%	0.3%	1.6%	60.8%	0.08	3.23	2.2%	82.8%

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

- L–patch Low CH

No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2) S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	per Beam Back-off (dB)	max ratio out of all beams at 2mm evaluation distance: ratio (Right 2mm)/(worst-surface 2mm)	ratio (Left 2mm)/(worst-surface 2mm)	ratio (Top 2mm)/(worst-surface 2mm)	ratio (Bottom 2mm)/(worst-surface 2mm)	ratio (Fomt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)
													5.8%	72.3%	37.0%	2.3%	6.3%	100.0%
1			0		1	0.01	0.11	0.01	0.00	0.00	0.25		2.0%	42.6%	5.6%	0.4%	1.6%	100.0%
2			1		1	0.01	0.10	0.02	0.00	0.01	0.23		2.2%	43.0%	7.4%	0.9%	2.2%	100.0%
3			2		1	0.00	0.10	0.02	0.00	0.00	0.25		1.2%	42.1%	9.3%	0.8%	1.6%	100.0%
4			3		1	0.01	0.12	0.04	0.00	0.01	0.20		2.5%	59.2%	18.9%	0.5%	2.5%	100.0%
5			4		1	0.00	0.14	0.04	0.00	0.00	0.25		1.2%	56.5%	16.9%	0.4%	1.6%	100.0%
6			5		2	0.01	0.20	0.07	0.01	0.01	0.41		1.5%	48.4%	16.5%	1.7%	3.2%	100.0%
7			6		2	0.01	0.17	0.07	0.00	0.01	0.36		3.4%	46.1%	20.7%	0.6%	2.0%	100.0%
8			7		2	0.02	0.22	0.01	0.00	0.01	0.44		3.4%	50.1%	2.5%	0.2%	2.1%	100.0%
9			8		2	0.01	0.27	0.05	0.01	0.01	0.57		1.9%	48.2%	8.8%	1.1%	1.9%	100.0%
10			9		2	0.01	0.19	0.05	0.00	0.01	0.46		1.5%	41.1%	11.6%	0.9%	3.1%	100.0%
11			10		2	0.01	0.22	0.01	0.00	0.00	0.50		2.6%	44.0%	2.6%	0.2%	0.8%	100.0%
12			11		2	0.01	0.27	0.04	0.00	0.01	0.54		2.2%	49.8%	6.9%	0.7%	1.7%	100.0%
13			12		5	0.02	0.78	0.40	0.02	0.05	1.08		1.4%	71.8%	36.6%	1.4%	4.4%	100.0%
14			13		5	0.03	0.43	0.28	0.00	0.04	0.80		3.4%	53.1%	34.9%	0.5%	4.6%	100.0%
15			14		5	0.04	0.62	0.03	0.00	0.01	1.04		4.1%	59.4%	2.9%	0.2%	0.6%	100.0%
16			15		5	0.03	0.52	0.09	0.00	0.02	1.03		3.1%	50.3%	8.9%	0.2%	1.7%	100.0%
17			16		5	0.03	0.80	0.34	0.02	0.04	1.32		2.5%	60.5%	25.6%	1.5%	3.3%	100.0%
18			17		5	0.02	0.77	0.40	0.01	0.05	1.07		1.5%	72.3%	37.0%	1.3%	4.6%	100.0%
19			18		5	0.03	0.42	0.11	0.00	0.02	0.82		3.4%	50.7%	13.4%	0.2%	2.7%	100.0%
20			19		5	0.05	0.59	0.04	0.00	0.01	1.06		4.7%	55.3%	3.9%	0.1%	1.0%	100.0%
21			20		5	0.03	0.63	0.17	0.01	0.03	1.04		3.3%	60.3%	16.1%	0.6%	2.5%	100.0%
22			256		1	0.01	0.09	0.01	0.00	0.01	0.16		3.1%	56.3%	3.8%	0.6%	3.8%	100.0%
23			257		1	0.01	0.10	0.02	0.00	0.01	0.19		3.2%	52.1%	7.9%	0.5%	3.2%	100.0%
24			258		1	0.01	0.09	0.02	0.00	0.01	0.22		2.8%	40.7%	8.3%	0.5%	3.2%	100.0%
25			259		1	0.00	0.11	0.03	0.00	0.01	0.22		1.4%	52.3%	11.6%	0.5%	3.7%	100.0%
26			260		1	0.00	0.09	0.02	0.00	0.01	0.17		2.3%	54.1%	13.4%	0.6%	4.1%	100.0%
27			261		2	0.01	0.11	0.04	0.00	0.02	0.36		3.7%	31.3%	11.5%	0.8%	5.1%	100.0%
28			262		2	0.02	0.17	0.02	0.00	0.01	0.43		3.5%	39.6%	5.6%	0.5%	3.0%	100.0%
29			263		2	0.01	0.24	0.02	0.00	0.01	0.41		2.7%	58.8%	5.6%	0.2%	2.9%	100.0%
30			264		2	0.01	0.11	0.03	0.00	0.01	0.31		4.2%	37.0%	10.4%	1.3%	2.3%	100.0%
31			265		2	0.01	0.16	0.08	0.00	0.02	0.42		2.2%	38.6%	19.0%	0.5%	3.9%	100.0%
32	M	Patch	266		2	0.01	0.23	0.02	0.00	0.02	0.36		2.5%	64.4%	4.4%	0.3%	5.3%	100.0%
33			267		2	0.01	0.23	0.02	0.00	0.02	0.41		2.9%	56.9%	4.9%	0.2%	3.6%	100.0%
34			268		5	0.03	0.30	0.19	0.02	0.04	0.69		4.5%	43.6%	27.0%	2.3%	5.2%	100.0%
35			269		5	0.05	0.36	0.09	0.00	0.02	0.90		5.2%	40.0%	9.7%	0.4%	2.0%	100.0%
36			270		5	0.05	0.60	0.08	0.00	0.04	1.00		4.6%	59.6%	8.3%	0.2%	3.5%	100.0%
37			271		5	0.03	0.49	0.02	0.00	0.04	0.84		3.2%	58.3%	2.9%	0.2%	4.2%	100.0%
38			272		5	0.02	0.34	0.17	0.01	0.04	0.64		2.5%	53.9%	26.3%	1.6%	6.3%	100.0%
39			273		5	0.05	0.29	0.10	0.01	0.02	0.85		5.5%	34.5%	11.5%	0.7%	2.5%	100.0%
40			274		5	0.04	0.46	0.08	0.00	0.03	0.87		4.2%	53.2%	9.5%	0.3%	3.6%	100.0%
41			275		5	0.05	0.68	0.04	0.00	0.04	1.10		4.1%	61.7%	3.8%	0.1%	4.0%	100.0%
42			276		5	0.03	0.41	0.07	0.00	0.03	0.74		3.4%	56.1%	10.1%	0.5%	4.3%	100.0%
43			0	256	2	0.01	0.20	0.03	0.00	0.02	0.44		2.5%	46.9%	6.2%	0.7%	3.4%	100.0%
44			1	257	2	0.01	0.21	0.04	0.00	0.02	0.45		2.6%	46.9%	9.3%	0.9%	3.7%	100.0%
45			2	258	2	0.01	0.24	0.06	0.00	0.02	0.51		2.6%	48.0%	11.7%	0.8%	3.6%	100.0%
46			3	259	2	0.01	0.27	0.08	0.00	0.02	0.44		2.5%	62.1%	17.6%	0.5%	3.4%	100.0%
47			4	260	2	0.01	0.26	0.10	0.00	0.01	0.44		2.3%	59.6%	23.1%	0.5%	3.2%	100.0%
48			5	261	4	0.03	0.45	0.14	0.01	0.05	0.97		3.2%	46.2%	14.2%	1.3%	5.4%	100.0%
49			6	262	4	0.04	0.42	0.12	0.01	0.03	0.97		3.9%	43.6%	12.0%	0.6%	2.6%	100.0%
50			7	263	4	0.03	0.47	0.04	0.00	0.03	0.92		3.4%	50.9%	4.0%	0.3%	3.3%	100.0%
51			8	264	4	0.03	0.44	0.11	0.01	0.03	0.98		3.3%	45.0%	10.9%	1.0%	3.0%	100.0%
52			9	265	4	0.03	0.52	0.17	0.01	0.05	0.90		3.1%	57.1%	18.5%	1.1%	5.6%	100.0%
53			10	266	4	0.02	0.46	0.04	0.00	0.03	0.97		2.3%	47.6%	3.8%	0.3%	2.7%	100.0%
54			11	267	4	0.03	0.53	0.08	0.01	0.03	0.98		2.9%	54.4%	7.7%	0.6%	3.3%	100.0%
55			12	268	10	0.07	1.53	0.80	0.04	0.12	2.24		3.2%	68.1%	35.6%	1.7%	5.4%	100.0%
56			13	269	10	0.13	0.87	0.43	0.01	0.06	2.23		5.8%	39.0%	19.1%	0.4%	2.7%	100.0%
57			14	270	10	0.10	1.22	0.13	0.01	0.05	2.13		4.7%	57.6%	6.1%	0.2%	2.2%	100.0%
58			15	271	10	0.08	1.21	0.13	0.01	0.08	2.22		3.6%	54.5%	5.8%	0.2%	3.6%	100.0%
59			16	272	10	0.05	1.32	0.63	0.03	0.14	2.22		2.1%	59.3%	28.2%	1.5%	6.2%	100.0%
60			17	273	10	0.11	1.32	0.64	0.03	0.09	2.34		4.6%	56.4%	27.4%	1.1%	3.8%	100.0%
61			18	274	10	0.11	1.19	0.24	0.01	0.07	2.18		4.8%	54.4%	11.2%	0.3%	3.4%	100.0%
62			19	275	10	0.10	1.35	0.09	0.00	0.08	2.34		4.2%	57.4%	3.8%	0.2%	3.4%	100.0%
63			20	276	10	0.08	1.16	0.32	0.01	0.10	2.04		3.9%	57.0%	15.7%	0.5%	4.9%	100.0%

No.	4cm2 PD(mW/cm2) at 10mm evaluation distance S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	max ratio out of all beams at 10mm evaluation distance: ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(worst-surface 2mm)	ratio (Left 10mm)/(worst-surface 2mm)	ratio (Top 10mm)/(worst-surface 2mm)	ratio (Bottom 10mm)/(worst-surface 2mm)	ratio (Front 10mm)/(worst-surface 2mm)	ratio (Rear 10mm)/(worst-surface 2mm)	4cm2 PD(mW/cm2) at 5mm evaluation distance S1(Front)	S2(Rear)	max ratio out of all beams at 5mm evaluation distance: ratio (Front 5mm)/(worst-surface 2mm)	ratio (Rear 5mm)/(worst-surface 2mm)
							66.4%	5.3%	28.1%	24.7%	1.9%	3.2%	66.4%			4.7%	83.1%
1	0.01	0.03	0.01	0.00	0.00	0.10	41.4%	2.0%	12.4%	4.0%	0.4%	0.8%	41.4%	0.00	0.18	0.8%	69.7%
2	0.01	0.03	0.01	0.00	0.00	0.10	44.3%	2.2%	13.5%	5.2%	0.9%	0.9%	44.3%	0.00	0.16	1.3%	67.4%
3	0.00	0.03	0.02	0.00	0.00	0.11	42.5%	0.8%	12.1%	6.1%	0.8%	0.8%	42.5%	0.00	0.17	1.2%	66.8%
4	0.00	0.04	0.02	0.00	0.00	0.08	40.3%	2.0%	17.9%	11.9%	0.5%	0.5%	40.3%	0.00	0.14	1.5%	68.2%
5	0.00	0.04	0.03	0.00	0.00	0.12	47.2%	1.2%	16.1%	10.5%	0.4%	0.8%	47.2%	0.00	0.19	0.8%	75.8%
6	0.01	0.06	0.04	0.01	0.01	0.15	36.9%	1.5%	14.0%	10.8%	1.5%	1.2%	36.9%	0.01	0.26	2.2%	63.9%
7	0.01	0.06	0.05	0.00	0.00	0.18	51.4%	2.8%	16.8%	14.0%	0.6%	1.1%	51.4%	0.01	0.27	1.4%	74.0%
8	0.01	0.09	0.01	0.00	0.00	0.26	58.5%	3.2%	19.6%	1.4%	0.2%	0.9%	58.5%	0.01	0.35	1.4%	80.4%
9	0.01	0.09	0.03	0.01	0.01	0.29	51.1%	1.6%	16.6%	5.5%	0.9%	0.9%	51.1%	0.01	0.41	1.4%	72.8%
10	0.01	0.06	0.04	0.00	0.01	0.17	37.8%	1.3%	13.6%	7.7%	0.9%	1.3%	37.8%	0.01	0.27	2.0%	58.9%
11	0.01	0.08	0.01	0.00	0.00	0.31	62.4%	2.2%	15.3%	1.2%	0.2%	0.4%	62.4%	0.00	0.41	0.6%	83.1%
12	0.01	0.10	0.02	0.00	0.00	0.30	56.3%	2.1%	18.5%	3.7%	0.7%	0.7%	56.3%	0.01	0.42	1.1%	78.0%
13	0.01	0.26	0.25	0.01	0.02	0.49	45.3%	1.1%	24.0%	23.4%	1.2%	1.8%	45.3%	0.03	0.76	3.0%	70.6%
14	0.03	0.17	0.20	0.00	0.02	0.40	49.5%	3.1%	21.1%	24.7%	0.4%	2.2%	49.5%	0.03	0.60	3.4%	74.4%
15	0.04	0.27	0.02	0.00	0.00	0.68	65.2%	3.8%	26.4%	1.6%	0.2%	0.3%	65.2%	0.00	0.86	0.4%	82.6%
16	0.03	0.18	0.06	0.00	0.01	0.57	55.7%	2.6%	17.9%	6.0%	0.2%	0.7%	55.7%	0.01	0.81	1.1%	79.3%
17	0.03	0.34	0.24	0.02	0.02	0.76	57.8%	2.0%	25.8%	18.1%	1.4%	1.6%	57.8%	0.03	1.04	2.4%	78.6%
18	0.01	0.25	0.26	0.01	0.02	0.48	44.9%	1.2%	23.6%	23.8%	1.1%	1.9%	44.9%	0.03	0.76	3.0%	70.6%
19	0.03	0.17	0.08	0.00	0.01	0.48	58.7%	3.0%	20.8%	9.7%	0.2%	1.1%	58.7%	0.01	0.66	1.7%	80.6%
20	0.04	0.25	0.02	0.00	0.01	0.66	62.6%	4.1%	23.9%	1.8%	0.1%	0.6%	62.6%	0.01	0.88	0.8%	82.9%
21	0.03	0.26	0.09	0.01	0.01	0.62	60.0%	2.9%	24.7%	8.7%	0.6%	1.2%	60.0%	0.02	0.82	1.7%	78.8%
22	0.00	0.04	0.01	0.00	0.00	0.08	48.1%	2.5%	21.9%	3.1%	0.6%	1.9%	48.1%	0.01	0.11	3.1%	70.6%
23	0.01	0.04	0.01	0.00	0.00	0.09	45.8%	2.6%	20.0%	4.2%	0.5%	1.6%	45.8%	0.00	0.14	2.1%	71.1%
24	0.01	0.03	0.01	0.00	0.00	0.09	42.1%	2.8%	12.0%	5.6%	0.5%	1.4%	42.1%	0.01	0.15	2.3%	70.8%
25	0.00	0.04	0.02	0.00	0.00	0.09	40.3%	1.4%	18.5%	7.4%	0.5%	1.9%	40.3%	0.01	0.15	2.3%	69.4%
26	0.00	0.03	0.02	0.00	0.00	0.09	50.0%	2.3%	17.4%	9.9%	0.6%	1.7%	50.0%	0.00	0.13	2.3%	75.0%
27	0.01	0.04	0.03	0.00	0.01	0.13	35.2%	3.1%	9.9%	8.2%	0.8%	2.3%	35.2%	0.01	0.22	3.4%	62.8%
28	0.01	0.07	0.01	0.00	0.00	0.21	49.4%	3.0%	15.6%	3.3%	0.5%	0.9%	49.4%	0.01	0.32	1.9%	74.1%
29	0.01	0.08	0.02	0.00	0.01	0.23	55.6%	2.5%	20.6%	4.2%	0.2%	1.2%	55.6%	0.01	0.33	2.0%	79.9%
30	0.01	0.05	0.02	0.00	0.00	0.14	43.8%	3.6%	14.6%	5.2%	1.0%	1.0%	43.8%	0.00	0.21	1.3%	66.6%
31	0.01	0.05	0.06	0.00	0.01	0.18	42.9%	1.9%	11.8%	13.3%	0.5%	1.9%	42.9%	0.01	0.28	2.9%	66.7%
32	0.01	0.10	0.01	0.00	0.01	0.19	51.7%	2.2%	28.1%	3.3%	0.3%	2.8%	51.7%	0.01	0.27	3.6%	74.4%
33	0.01	0.09	0.01	0.00	0.01	0.23	56.4%	2.4%	22.9%	3.2%	0.2%	1.9%	56.4%	0.01	0.32	2.4%	78.6%
34	0.03	0.12	0.15	0.01	0.01	0.26	37.9%	3.6%	16.6%	21.5%	1.9%	2.0%	37.9%	0.02	0.46	3.5%	66.2%
35	0.04	0.15	0.06	0.00	0.01	0.36	40.4%	4.7%	16.7%	6.7%	0.3%	0.8%	40.4%	0.01	0.61	1.2%	68.0%
36	0.04	0.28	0.04	0.00	0.02	0.62	61.9%	4.1%	27.9%	3.8%	0.2%	2.0%	61.9%	0.03	0.82	2.8%	82.3%
37	0.02	0.22	0.01	0.00	0.02	0.48	57.4%	2.2%	26.2%	1.3%	0.2%	2.4%	57.4%	0.03	0.67	3.1%	80.4%
38	0.01	0.11	0.13	0.01	0.02	0.28	44.2%	2.0%	17.0%	20.4%	1.3%	3.0%	44.2%	0.03	0.47	4.6%	73.4%
39	0.04	0.13	0.06	0.01	0.01	0.31	36.6%	4.7%	14.9%	7.5%	0.6%	0.8%	36.6%	0.01	0.54	1.3%	63.2%
40	0.03	0.20	0.05	0.00	0.01	0.50	58.2%	3.8%	23.0%	5.3%	0.2%	1.4%	58.2%	0.02	0.70	2.2%	80.7%
41	0.03	0.30	0.03	0.00	0.03	0.69	62.8%	2.9%	27.3%	2.4%	0.1%	2.5%	62.8%	0.04	0.90	3.2%	82.6%
42	0.02	0.18	0.05	0.00	0.02	0.34	46.7%	2.9%	24.6%	6.9%	0.5%	2.2%	46.7%	0.02	0.54	3.3%	73.5%
43	0.01	0.08	0.02	0.00	0.01	0.20	45.5%	2.1%	17.5%	4.4%	0.7%	1.8%	45.5%	0.01	0.31	2.5%	71.5%
44	0.01	0.07	0.03	0.00	0.01	0.20	44.7%	2.4%	15.0%	6.6%	0.7%	1.5%	44.7%	0.01	0.32	2.6%	69.6%
45	0.01	0.06	0.03	0.00	0.01	0.23	46.0%	2.4%	12.6%	6.5%	0.8%	1.8%	46.0%	0.01	0.34	2.6%	67.2%
46	0.01	0.08	0.05	0.00	0.01	0.18	40.2%	2.1%	19.2%	11.9%	0.5%	1.6%	40.2%	0.01	0.29	2.3%	66.4%
47	0.01	0.08	0.07	0.00	0.01	0.22	49.2%	2.0%	18.4%	15.6%	0.5%	1.4%	49.2%	0.01	0.34	2.3%	76.2%
48	0.03	0.13	0.09	0.01	0.02	0.37	38.3%	2.7%	13.8%	9.5%	1.2%	2.5%	38.3%	0.04	0.66	3.9%	67.8%
49	0.03	0.17	0.08	0.01	0.01	0.45	46.6%	3.5%	17.2%	7.8%	0.5%	1.0%	46.6%	0.02	0.70	1.6%	72.3%
50	0.03	0.18	0.03	0.00	0.01	0.50	54.4%	3.0%	19.5%	3.2%	0.3%	1.4%	54.4%	0.02	0.72	2.0%	78.3%
51	0.03	0.17	0.06	0.01	0.01	0.51	51.9%	2.6%	17.6%	6.2%	0.8%	1.3%	51.9%	0.02	0.74	2.0%	75.6%
52	0.02	0.16	0.12	0.01	0.03	0.41	45.0%	2.7%	17.9%	13.7%	1.0%	2.8%	45.0%	0.04	0.61	4.2%	67.4%
53	0.02	0.18	0.03	0.00	0.02	0.55	56.1%	2.0%	18.6%	2.7%	0.2%	1.5%	56.1%	0.02	0.77	2.1%	79.0%
54	0.02	0.20	0.05	0.01	0.01	0.53	54.2%	2.5%	20.5%	4.7%	0.5%	1.4%	54.2%	0.02	0.75	2.0%	77.3%
55	0.05	0.54	0.55	0.03	0.06	1.03	45.8%	2.4%	24.2%	24.7%	1.3%	2.5%	45.8%	0.09	1.54	3.8%	68.9%
56	0.12	0.34	0.28	0.01	0.03	0.94	42.2%	5.3%	15.1%	12.5%	0.4%	1.3%	42.2%	0.04	1.54	2.0%	69.2%
57	0.09	0.56	0.07	0.00	0.03	1.41	66.4%	4.1%	26.3%	3.1%	0.2%	1.2%	66.4%	0.04	1.76	1.7%	83.0%
58	0.07	0.50	0.09	0.00	0.04	1.22	55.2%	3.2%	22.7%	4.0%	0.2%	2.0%	55.2%	0.06	1.72	2.8%	77.6%
59	0.04	0.53	0.46	0.03	0.07	1.26	56.8%	1.7%	23.9%	20.6%	1.5%	3.2%	56.8%	0.10	1.74	4.7%	78.1%
60	0.09	0.44	0.42	0.02	0.04	0.96	40.9%	3.8%	18.9%	17.9%	1.0%	1.8%	40.9%	0.06	1.59	2.7%	68.1%
61	0.10	0.51	0.17	0.01	0.03	1.25	57.6%	4.4%	23.4%	7.6%	0.3%	1.2%	57.6%	0.04	1.75	1.8%	80.5%
62	0.08	0.61	0.06	0.00	0.05	1.41	60.3%	3.5%	25.9%	2.4%	0.1%	2.2%	60.3%	0.07	1.91	2.8%	81.6%
63	0.07	0.48	0.21	0.01	0.05	1.06	52.2%	3.2%	23.3%	10.3%	0.4%	2.4%	52.2%	0.07	1.54	3.6%	75.3%

- L–patch Mid CH

						4cm2 PD(mW/cm2)							max ratio out of all beams at 2mm evaluation distance					
													6.1%	71.2%	34.1%	2.0%	6.3%	100.0%
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	per Beam Back-off (dB)	ratio (Right 2mm)/(worst-surface 2mm)	ratio (Left 2mm)/(worst-surface 2mm)	ratio (Top 2mm)/(worst-surface 2mm)	ratio (Bottom 2mm)/(worst-surface 2mm)	ratio (Fomt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)
1			0		1	0.01	0.13	0.01	0.00	0.00	0.29		1.7%	46.0%	4.5%	0.3%	1.0%	100.0%
2			1		1	0.01	0.12	0.02	0.00	0.01	0.29		2.4%	40.8%	6.6%	0.3%	2.1%	100.0%
3			2		1	0.00	0.13	0.02	0.00	0.01	0.28		1.4%	45.3%	6.5%	0.7%	2.2%	100.0%
4			3		1	0.01	0.12	0.03	0.00	0.01	0.24		3.4%	50.0%	14.4%	0.4%	2.1%	100.0%
5			4		1	0.00	0.15	0.05	0.00	0.00	0.25		1.6%	59.1%	19.8%	0.4%	1.6%	100.0%
6			5		2	0.01	0.26	0.06	0.00	0.02	0.57		1.6%	46.2%	9.8%	0.7%	3.5%	100.0%
7			6		2	0.02	0.23	0.07	0.00	0.01	0.48		3.1%	47.8%	14.0%	0.6%	2.9%	100.0%
8			7		2	0.02	0.27	0.01	0.00	0.01	0.55		3.8%	49.8%	1.6%	0.2%	1.3%	100.0%
9			8		2	0.02	0.28	0.05	0.01	0.01	0.61		2.4%	45.9%	8.3%	0.8%	1.6%	100.0%
10			9		2	0.01	0.23	0.05	0.00	0.01	0.55		1.5%	42.3%	9.7%	0.5%	2.6%	100.0%
11			10		2	0.02	0.24	0.02	0.00	0.01	0.48		3.7%	49.2%	3.1%	0.2%	1.0%	100.0%
12			11		2	0.02	0.27	0.04	0.00	0.01	0.60		3.0%	45.6%	5.8%	0.7%	1.0%	100.0%
13			12		5	0.02	0.78	0.38	0.01	0.05	1.23		1.8%	63.3%	30.8%	1.0%	4.1%	100.0%
14			13		5	0.03	0.81	0.22	0.00	0.03	1.34		2.2%	60.3%	16.1%	0.2%	2.3%	100.0%
15			14		5	0.06	0.56	0.05	0.00	0.01	1.04		5.5%	54.1%	4.8%	0.2%	1.2%	100.0%
16			15		5	0.05	0.51	0.11	0.00	0.01	0.99		5.0%	51.8%	11.3%	0.3%	1.1%	100.0%
17			16		5	0.03	0.91	0.35	0.02	0.04	1.47		2.0%	61.8%	23.5%	1.4%	2.9%	100.0%
18			17		5	0.02	0.79	0.38	0.01	0.05	1.24		1.9%	63.8%	30.2%	0.9%	4.1%	100.0%
19			18		5	0.03	0.46	0.16	0.00	0.03	0.88		3.1%	52.3%	18.1%	0.5%	3.3%	100.0%
20			19		5	0.06	0.58	0.07	0.00	0.01	1.06		6.1%	54.9%	6.2%	0.1%	1.0%	100.0%
21			20		5	0.04	0.71	0.20	0.01	0.02	1.23		3.0%	57.6%	16.2%	0.5%	1.5%	100.0%
22			256		1	0.01	0.09	0.01	0.00	0.00	0.15		3.9%	58.6%	3.9%	0.7%	2.6%	100.0%
23			257		1	0.01	0.07	0.01	0.00	0.01	0.19		3.2%	38.8%	6.9%	0.5%	4.8%	100.0%
24			258		1	0.01	0.13	0.02	0.00	0.01	0.25		2.4%	52.8%	8.1%	0.4%	2.8%	100.0%
25			259		1	0.00	0.11	0.03	0.00	0.01	0.25		1.6%	43.3%	12.2%	0.4%	3.3%	100.0%
26			260		1	0.00	0.09	0.02	0.00	0.01	0.19		2.2%	46.5%	10.8%	0.5%	4.9%	100.0%
27			261		2	0.02	0.16	0.05	0.00	0.02	0.45		3.3%	34.1%	10.4%	0.7%	4.2%	100.0%
28			262		2	0.02	0.17	0.04	0.00	0.02	0.50		3.0%	33.8%	7.8%	0.6%	3.8%	100.0%
29			263		2	0.01	0.27	0.02	0.00	0.02	0.38		2.7%	71.2%	5.3%	0.3%	4.5%	100.0%
30			264		2	0.01	0.12	0.03	0.01	0.01	0.30		4.6%	40.9%	9.2%	1.7%	4.0%	100.0%
31			265		2	0.01	0.22	0.08	0.00	0.02	0.50		1.6%	45.3%	17.0%	0.4%	3.4%	100.0%
32	M	Patch	266		2	0.01	0.19	0.02	0.00	0.01	0.34		3.0%	57.6%	6.2%	0.3%	3.9%	100.0%
33			267		2	0.01	0.20	0.04	0.00	0.01	0.44		2.1%	44.8%	8.7%	0.2%	2.5%	100.0%
34			268		5	0.03	0.45	0.22	0.02	0.05	0.89		3.5%	50.1%	24.4%	1.9%	5.4%	100.0%
35			269		5	0.05	0.37	0.08	0.00	0.03	0.96		4.8%	38.7%	7.8%	0.4%	2.9%	100.0%
36			270		5	0.03	0.56	0.09	0.00	0.05	0.97		2.6%	57.6%	8.8%	0.2%	5.0%	100.0%
37			271		5	0.02	0.48	0.04	0.00	0.03	0.78		2.1%	62.4%	4.6%	0.1%	3.4%	100.0%
38			272		5	0.02	0.24	0.19	0.02	0.05	0.76		2.6%	32.2%	25.1%	2.0%	6.3%	100.0%
39			273		5	0.04	0.42	0.09	0.01	0.04	1.00		4.2%	41.5%	8.8%	0.6%	3.8%	100.0%
40			274		5	0.04	0.39	0.10	0.00	0.05	0.84		5.3%	46.9%	11.4%	0.2%	6.3%	100.0%
41			275		5	0.03	0.70	0.04	0.00	0.03	1.13		2.6%	61.4%	3.8%	0.1%	2.9%	100.0%
42			276		5	0.02	0.38	0.09	0.00	0.02	0.81		2.5%	47.4%	11.6%	0.4%	2.8%	100.0%
43			0	256	2	0.02	0.24	0.03	0.00	0.01	0.49		3.7%	50.2%	5.6%	0.6%	1.9%	100.0%
44			1	257	2	0.02	0.23	0.05	0.00	0.02	0.53		3.9%	42.1%	8.8%	0.6%	3.4%	100.0%
45			2	258	2	0.01	0.29	0.05	0.00	0.02	0.59		2.2%	49.4%	9.0%	0.5%	3.9%	100.0%
46			3	259	2	0.01	0.23	0.07	0.00	0.02	0.52		2.7%	44.9%	13.2%	0.4%	2.9%	100.0%
47			4	260	2	0.01	0.28	0.10	0.00	0.02	0.47		1.7%	59.6%	22.1%	0.4%	4.0%	100.0%
48			5	261	4	0.04	0.58	0.15	0.01	0.06	1.19		3.4%	48.5%	12.2%	0.8%	5.0%	100.0%
49			6	262	4	0.04	0.55	0.14	0.01	0.05	1.12		3.2%	49.2%	12.7%	0.4%	4.1%	100.0%
50			7	263	4	0.04	0.57	0.04	0.00	0.04	0.97		3.6%	58.2%	3.9%	0.3%	4.4%	100.0%
51			8	264	4	0.05	0.58	0.12	0.01	0.03	1.07		4.5%	53.9%	11.1%	0.8%	3.2%	100.0%
52			9	265	4	0.03	0.51	0.17	0.01	0.05	0.98		2.7%	51.8%	17.5%	0.6%	4.7%	100.0%
53			10	266	4	0.04	0.50	0.05	0.00	0.03	1.04		3.4%	48.2%	5.0%	0.2%	2.5%	100.0%
54			11	267	4	0.03	0.55	0.10	0.01	0.02	1.05		3.2%	52.4%	9.3%	0.7%	2.3%	100.0%
55			12	268	10	0.07	1.53	0.85	0.04	0.13	2.49		2.8%	61.2%	34.1%	1.4%	5.3%	100.0%
56			13	269	10	0.14	1.51	0.31	0.01	0.08	2.64		5.3%	57.1%	11.7%	0.4%	3.0%	100.0%
57			14	270	10	0.09	1.35	0.16	0.01	0.08	2.21		4.1%	61.2%	7.4%	0.2%	3.7%	100.0%
58			15	271	10	0.11	1.23	0.14	0.01	0.05	2.23		4.9%	55.0%	6.5%	0.4%	2.4%	100.0%
59			16	272	10	0.05	1.53	0.74	0.03	0.14	2.74		1.8%	55.7%	26.9%	1.1%	5.2%	100.0%
60			17	273	10	0.12	1.48	0.56	0.02	0.11	2.53		4.5%	58.5%	22.1%	0.7%	4.4%	100.0%
61			18	274	10	0.13	1.14	0.38	0.01	0.12	2.37		5.4%	48.1%	15.9%	0.3%	5.1%	100.0%
62			19	275	10	0.10	1.42	0.11	0.00	0.06	2.44		4.2%	58.2%	4.5%	0.1%	2.3%	100.0%
63			20	276	10	0.10	1.37	0.43	0.01	0.08	2.23		4.4%	61.6%	19.4%	0.4%	3.4%	100.0%

	4cm2 PD(mW/cm2) at 10mm evaluation distance						max ratio out of all beams at 10mm evaluation distance							4cm2 PD(mW/cm2) at 5mm evaluation distance		max ratio out of all beams at 5mm evaluation distance	
							60.8%	5.4%	28.2%	24.5%	1.7%	2.6%	60.8%			4.1%	81.3%
No.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(worst-surface 2mm)	ratio (Left 10mm)/(worst-surface 2mm)	ratio (Top 10mm)/(worst-surface 2mm)	ratio (Bottom 10mm)/(worst-surface 2mm)	ratio (Front 10mm)/(worst-surface 2mm)	ratio (Rear 10mm)/(worst-surface 2mm)	S1(Front)	S2(Rear)	ratio (Front 5mm)/(worst-surface 2mm)	ratio (Rear 5mm)/(worst-surface 2mm)
1	0.01	0.04	0.01	0.00	0.00	0.12	41.9%	1.7%	13.1%	3.5%	0.3%	0.3%	41.9%	0.00	0.20	0.7%	69.6%
2	0.01	0.03	0.01	0.00	0.00	0.12	40.5%	2.1%	11.1%	4.5%	0.3%	1.0%	40.5%	0.00	0.20	1.4%	69.2%
3	0.00	0.04	0.01	0.00	0.00	0.10	35.1%	1.4%	13.8%	4.0%	0.4%	1.1%	35.1%	0.00	0.18	1.4%	65.6%
4	0.01	0.03	0.02	0.00	0.00	0.11	44.9%	3.0%	14.4%	8.9%	0.4%	0.8%	44.9%	0.00	0.17	1.3%	69.9%
5	0.00	0.05	0.03	0.00	0.00	0.12	48.8%	1.2%	18.7%	11.9%	0.4%	0.8%	48.8%	0.00	0.19	1.2%	74.2%
6	0.01	0.10	0.04	0.00	0.01	0.26	45.3%	1.2%	17.5%	6.3%	0.5%	1.6%	45.3%	0.01	0.38	2.4%	66.6%
7	0.01	0.08	0.04	0.00	0.00	0.23	48.6%	2.9%	16.3%	8.4%	0.4%	0.8%	48.6%	0.01	0.35	1.7%	73.7%
8	0.02	0.10	0.01	0.00	0.00	0.31	56.0%	3.3%	18.8%	0.9%	0.2%	0.7%	56.0%	0.01	0.43	0.9%	78.8%
9	0.01	0.09	0.04	0.01	0.01	0.31	50.3%	2.1%	15.0%	5.7%	0.8%	0.8%	50.3%	0.01	0.45	1.1%	73.3%
10	0.01	0.09	0.04	0.00	0.01	0.24	43.2%	1.3%	16.6%	6.9%	0.5%	1.1%	43.2%	0.01	0.34	1.8%	62.0%
11	0.02	0.08	0.01	0.00	0.00	0.27	56.4%	3.1%	16.8%	2.5%	0.2%	0.6%	56.4%	0.00	0.39	0.8%	80.1%
12	0.02	0.10	0.02	0.00	0.00	0.33	54.4%	2.7%	15.8%	3.5%	0.7%	0.5%	54.4%	0.01	0.46	0.8%	77.2%
13	0.02	0.32	0.26	0.01	0.02	0.61	49.8%	1.5%	25.6%	20.8%	0.9%	1.9%	49.8%	0.04	0.93	2.9%	75.7%
14	0.02	0.34	0.15	0.00	0.02	0.79	58.8%	1.8%	25.1%	11.3%	0.1%	1.2%	58.8%	0.02	1.09	1.7%	81.3%
15	0.05	0.23	0.03	0.00	0.01	0.62	59.7%	4.9%	21.7%	2.6%	0.2%	0.6%	59.7%	0.01	0.82	0.8%	78.6%
16	0.04	0.18	0.07	0.00	0.01	0.56	57.3%	4.5%	18.6%	7.4%	0.3%	0.5%	57.3%	0.01	0.77	0.8%	78.3%
17	0.02	0.39	0.23	0.02	0.02	0.87	59.1%	1.6%	26.4%	15.5%	1.4%	1.4%	59.1%	0.03	1.18	2.1%	80.2%
18	0.02	0.33	0.25	0.01	0.02	0.64	51.4%	1.7%	26.4%	20.4%	0.7%	1.9%	51.4%	0.04	0.95	2.9%	76.7%
19	0.03	0.17	0.08	0.00	0.01	0.47	53.1%	2.9%	19.0%	9.5%	0.3%	1.4%	53.1%	0.02	0.71	2.1%	81.2%
20	0.06	0.24	0.03	0.00	0.01	0.64	60.8%	5.4%	22.3%	2.5%	0.1%	0.5%	60.8%	0.01	0.84	0.8%	79.8%
21	0.03	0.29	0.10	0.01	0.01	0.74	60.7%	2.6%	23.6%	8.5%	0.5%	0.7%	60.7%	0.01	0.99	1.1%	81.1%
22	0.01	0.04	0.00	0.00	0.00	0.08	51.3%	3.3%	25.0%	2.6%	0.7%	1.3%	51.3%	0.00	0.11	2.0%	73.7%
23	0.01	0.02	0.01	0.00	0.00	0.08	41.0%	2.7%	12.8%	4.8%	0.5%	2.1%	41.0%	0.01	0.13	2.7%	69.1%
24	0.01	0.04	0.01	0.00	0.00	0.11	46.3%	2.0%	17.5%	5.7%	0.4%	1.2%	46.3%	0.01	0.18	2.0%	74.4%
25	0.00	0.04	0.02	0.00	0.00	0.11	44.9%	1.2%	14.7%	9.0%	0.4%	1.2%	44.9%	0.01	0.18	2.0%	73.9%
26	0.00	0.03	0.01	0.00	0.00	0.09	50.8%	1.6%	15.1%	5.9%	0.5%	1.6%	50.8%	0.01	0.14	3.2%	77.3%
27	0.01	0.06	0.03	0.00	0.01	0.18	40.5%	2.9%	13.9%	7.5%	0.7%	1.5%	40.5%	0.01	0.31	2.6%	67.4%
28	0.01	0.06	0.02	0.00	0.01	0.25	50.7%	2.4%	12.7%	4.6%	0.4%	1.2%	50.7%	0.01	0.37	2.2%	74.4%
29	0.01	0.10	0.02	0.00	0.01	0.20	54.4%	1.9%	26.7%	4.0%	0.3%	1.6%	54.4%	0.01	0.30	2.7%	78.7%
30	0.01	0.05	0.02	0.00	0.01	0.12	40.9%	4.0%	15.2%	6.3%	1.3%	1.7%	40.9%	0.01	0.20	2.3%	66.0%
31	0.01	0.08	0.06	0.00	0.01	0.21	43.2%	1.4%	16.0%	12.9%	0.4%	1.2%	43.2%	0.01	0.34	2.0%	67.9%
32	0.01	0.08	0.01	0.00	0.01	0.17	51.0%	2.7%	24.9%	3.6%	0.3%	1.8%	51.0%	0.01	0.25	2.7%	73.9%
33	0.01	0.08	0.02	0.00	0.01	0.24	55.6%	1.8%	17.7%	4.6%	0.2%	1.1%	55.6%	0.01	0.33	1.6%	76.1%
34	0.03	0.19	0.17	0.02	0.02	0.39	43.4%	2.8%	21.5%	19.6%	1.7%	1.8%	43.4%	0.03	0.60	3.0%	67.3%
35	0.04	0.13	0.05	0.00	0.01	0.45	46.9%	4.3%	14.0%	5.6%	0.3%	1.0%	46.9%	0.02	0.69	1.6%	72.4%
36	0.02	0.25	0.05	0.00	0.02	0.58	60.1%	1.8%	26.1%	4.7%	0.2%	1.9%	60.1%	0.03	0.78	3.0%	80.2%
37	0.01	0.21	0.02	0.00	0.02	0.46	59.3%	1.5%	27.4%	2.2%	0.1%	2.2%	59.3%	0.02	0.63	2.7%	80.8%
38	0.02	0.10	0.15	0.01	0.02	0.39	50.9%	2.5%	13.7%	19.8%	1.6%	2.6%	50.9%	0.03	0.56	4.1%	73.5%
39	0.04	0.15	0.06	0.01	0.01	0.43	43.1%	3.7%	15.2%	6.0%	0.5%	1.4%	43.1%	0.02	0.69	2.2%	68.9%
40	0.04	0.16	0.07	0.00	0.02	0.48	57.4%	4.7%	19.2%	8.6%	0.2%	2.4%	57.4%	0.03	0.65	4.0%	77.5%
41	0.02	0.32	0.02	0.00	0.02	0.66	58.4%	1.7%	28.2%	1.5%	0.1%	1.9%	58.4%	0.03	0.91	2.4%	80.5%
42	0.02	0.14	0.05	0.00	0.01	0.35	42.8%	1.9%	17.4%	6.3%	0.4%	1.4%	42.8%	0.02	0.56	2.2%	69.4%
43	0.02	0.10	0.02	0.00	0.00	0.22	45.5%	3.3%	19.5%	3.9%	0.4%	0.8%	45.5%	0.01	0.34	1.2%	70.2%
44	0.02	0.09	0.03	0.00	0.01	0.22	41.2%	3.4%	16.1%	6.4%	0.4%	1.5%	41.2%	0.01	0.37	2.2%	69.3%
45	0.01	0.10	0.04	0.00	0.01	0.25	41.6%	1.9%	16.8%	6.1%	0.5%	1.7%	41.6%	0.02	0.41	2.7%	69.6%
46	0.01	0.08	0.05	0.00	0.01	0.24	46.6%	2.3%	15.7%	9.1%	0.4%	1.0%	46.6%	0.01	0.38	1.7%	73.9%
47	0.01	0.09	0.06	0.00	0.01	0.25	52.1%	1.5%	19.4%	13.2%	0.2%	1.7%	52.1%	0.01	0.36	2.8%	76.4%
48	0.04	0.24	0.10	0.01	0.03	0.57	47.5%	2.9%	20.5%	8.7%	0.7%	2.4%	47.5%	0.04	0.85	3.7%	71.5%
49	0.03	0.20	0.09	0.00	0.02	0.54	48.3%	2.9%	17.4%	8.0%	0.4%	1.4%	48.3%	0.03	0.82	2.7%	72.9%
50	0.03	0.20	0.02	0.00	0.01	0.50	51.4%	3.1%	20.6%	2.2%	0.3%	1.4%	51.4%	0.02	0.74	2.5%	75.9%
51	0.04	0.21	0.08	0.01	0.02	0.49	45.6%	3.8%	19.6%	7.9%	0.7%	1.5%	45.6%	0.03	0.76	2.3%	71.4%
52	0.02	0.17	0.13	0.01	0.02	0.44	44.6%	2.5%	17.5%	13.1%	0.6%	2.4%	44.6%	0.03	0.66	3.5%	67.6%
53	0.03	0.21	0.03	0.00	0.01	0.52	49.8%	3.0%	20.0%	2.6%	0.2%	1.2%	49.8%	0.02	0.79	1.7%	76.1%
54	0.03	0.21	0.05	0.01	0.01	0.57	53.8%	2.8%	19.9%	5.1%	0.7%	1.0%	53.8%	0.02	0.80	1.6%	76.4%
55	0.06	0.64	0.61	0.03	0.06	1.26	50.4%	2.4%	25.6%	24.5%	1.2%	2.5%	50.4%	0.10	1.84	3.8%	73.6%
56	0.12	0.59	0.24	0.01	0.05	1.48	56.1%	4.7%	22.3%	8.9%	0.3%	1.8%	56.1%	0.06	2.08	2.4%	78.8%
57	0.08	0.55	0.10	0.00	0.04	1.34	60.5%	3.7%	24.8%	4.7%	0.2%	1.6%	60.5%	0.05	1.76	2.3%	79.5%
58	0.10	0.48	0.10	0.01	0.03	1.33	59.4%	4.3%	21.6%	4.3%	0.3%	1.5%	59.4%	0.05	1.80	2.1%	80.6%
59	0.04	0.62	0.50	0.03	0.07	1.62	59.3%	1.5%	22.8%	18.4%	1.0%	2.6%	59.3%	0.11	2.19	3.9%	80.0%
60	0.10	0.59	0.39	0.02	0.06	1.24	48.9%	4.1%	23.2%	15.3%	0.6%	2.4%	48.9%	0.09	1.88	3.4%	74.0%
61	0.12	0.47	0.23	0.01	0.04	1.36	57.5%	4.9%	19.7%	9.7%	0.3%	1.8%	57.5%	0.08	1.90	3.3%	80.3%
62	0.09	0.62	0.05	0.00	0.04	1.45	59.2%	3.8%	25.3%	1.9%	0.1%	1.4%	59.2%	0.05	1.95	1.8%	79.7%
63	0.08	0.58	0.25	0.01	0.04	1.28	57.4%	3.7%	26.1%	11.4%	0.3%	1.7%	57.4%	0.06	1.72	2.6%	77.0%

- L–patch High CH

						4cm2 PD(mW/cm2)							max ratio out of all beams at 2mm evaluation distance					
													7.1%	66.2%	30.6%	2.6%	6.4%	100.0%
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	per Beam Back-off (dB)	ratio (Right 2mm)/(worst-surface 2mm)	ratio (Left 2mm)/(worst-surface 2mm)	ratio (Top 2mm)/(worst-surface 2mm)	ratio (Bottom 2mm)/(worst-surface 2mm)	ratio (Fomt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)
1			0		1	0.01	0.12	0.01	0.00	0.00	0.27		1.8%	43.4%	4.7%	0.7%	1.1%	100.0%
2			1		1	0.01	0.14	0.01	0.00	0.00	0.30		2.0%	46.1%	4.7%	0.7%	1.3%	100.0%
3			2		1	0.01	0.13	0.02	0.00	0.00	0.29		1.7%	45.1%	5.1%	0.3%	1.4%	100.0%
4			3		1	0.01	0.15	0.03	0.00	0.00	0.25		2.0%	58.9%	10.6%	0.8%	1.2%	100.0%
5			4		1	0.00	0.12	0.04	0.00	0.00	0.21		1.5%	58.0%	18.0%	0.5%	2.0%	100.0%
6			5		2	0.01	0.30	0.04	0.00	0.01	0.64		2.2%	47.0%	6.7%	0.6%	1.6%	100.0%
7			6		2	0.01	0.30	0.04	0.00	0.01	0.53		2.6%	56.8%	8.3%	0.4%	1.1%	100.0%
8			7		2	0.02	0.28	0.01	0.00	0.01	0.53		3.4%	52.3%	1.3%	0.4%	1.1%	100.0%
9			8		2	0.02	0.27	0.04	0.01	0.01	0.59		2.7%	46.7%	7.3%	1.2%	1.7%	100.0%
10			9		2	0.01	0.27	0.05	0.00	0.01	0.57		2.5%	48.3%	8.3%	0.7%	1.8%	100.0%
11			10		2	0.02	0.27	0.01	0.00	0.01	0.47		3.2%	57.4%	3.0%	0.2%	1.1%	100.0%
12			11		2	0.02	0.28	0.03	0.01	0.01	0.56		3.4%	48.9%	5.0%	0.9%	1.4%	100.0%
13			12		5	0.03	0.75	0.33	0.01	0.04	1.37		2.1%	54.8%	23.8%	0.9%	3.2%	100.0%
14			13		5	0.05	0.78	0.19	0.00	0.03	1.32		3.4%	59.3%	14.5%	0.3%	1.9%	100.0%
15			14		5	0.04	0.58	0.08	0.00	0.01	0.88		4.3%	66.1%	9.1%	0.2%	1.5%	100.0%
16			15		5	0.05	0.53	0.09	0.01	0.01	1.04		4.8%	51.4%	9.1%	0.6%	1.2%	100.0%
17			16		5	0.02	0.64	0.30	0.03	0.04	1.16		1.6%	55.0%	26.2%	2.6%	3.4%	100.0%
18			17		5	0.03	0.75	0.33	0.01	0.05	1.38		2.4%	54.7%	23.8%	0.7%	3.3%	100.0%
19			18		5	0.04	0.67	0.07	0.01	0.01	1.12		3.5%	59.4%	5.9%	0.4%	1.2%	100.0%
20			19		5	0.04	0.57	0.04	0.00	0.01	0.93		4.7%	61.1%	4.7%	0.4%	1.3%	100.0%
21			20		5	0.05	0.63	0.15	0.01	0.02	1.15		4.1%	54.4%	12.9%	0.8%	1.4%	100.0%
22			256		1	0.01	0.07	0.01	0.00	0.00	0.15		4.1%	45.9%	4.1%	0.7%	2.0%	100.0%
23			257		1	0.01	0.08	0.01	0.00	0.01	0.22		2.8%	35.5%	6.0%	0.5%	2.8%	100.0%
24			258		1	0.00	0.07	0.02	0.00	0.00	0.20		2.0%	33.8%	8.1%	0.5%	1.5%	100.0%
25			259		1	0.01	0.10	0.03	0.00	0.01	0.22		2.3%	45.5%	11.4%	0.5%	4.5%	100.0%
26			260		1	0.00	0.06	0.03	0.00	0.01	0.14		2.2%	41.0%	20.1%	0.7%	4.3%	100.0%
27			261		2	0.01	0.22	0.04	0.00	0.01	0.46		2.8%	46.9%	8.7%	0.4%	2.4%	100.0%
28			262		2	0.02	0.20	0.04	0.00	0.01	0.41		3.7%	48.0%	10.5%	0.2%	2.7%	100.0%
29			263		2	0.01	0.13	0.02	0.00	0.01	0.37		2.9%	35.9%	4.8%	0.3%	1.9%	100.0%
30			264		2	0.01	0.16	0.03	0.00	0.01	0.37		3.0%	42.9%	7.1%	0.5%	2.7%	100.0%
31			265		2	0.01	0.22	0.07	0.00	0.02	0.45		1.1%	48.7%	14.6%	0.4%	3.6%	100.0%
32	M	Patch	266		2	0.01	0.13	0.02	0.00	0.01	0.35		3.5%	36.7%	5.8%	0.3%	1.7%	100.0%
33			267		2	0.01	0.13	0.05	0.00	0.01	0.39		2.5%	32.5%	11.9%	0.3%	2.5%	100.0%
34			268		5	0.01	0.47	0.20	0.01	0.04	0.85		1.6%	55.4%	24.0%	0.8%	4.7%	100.0%
35			269		5	0.03	0.54	0.09	0.00	0.03	0.96		3.0%	56.0%	9.7%	0.4%	3.1%	100.0%
36			270		5	0.03	0.24	0.11	0.00	0.03	0.64		4.5%	36.8%	16.3%	0.3%	4.8%	100.0%
37			271		5	0.03	0.31	0.03	0.00	0.01	0.92		3.7%	34.1%	3.6%	0.2%	1.3%	100.0%
38			272		5	0.02	0.38	0.17	0.01	0.05	0.73		2.5%	52.3%	23.0%	1.4%	6.4%	100.0%
39			273		5	0.02	0.60	0.10	0.00	0.03	1.04		1.8%	57.9%	9.8%	0.4%	3.1%	100.0%
40			274		5	0.06	0.35	0.12	0.00	0.02	0.78		7.1%	44.1%	15.1%	0.3%	2.4%	100.0%
41			275		5	0.04	0.22	0.04	0.00	0.02	0.80		4.9%	27.2%	4.6%	0.3%	2.5%	100.0%
42			276		5	0.03	0.42	0.10	0.00	0.02	0.81		3.3%	52.6%	12.4%	0.2%	3.0%	100.0%
43			0	256	2	0.02	0.20	0.03	0.00	0.01	0.49		4.5%	41.2%	5.9%	0.6%	1.6%	100.0%
44			1	257	2	0.02	0.26	0.04	0.00	0.02	0.54		3.4%	47.9%	7.4%	0.6%	3.0%	100.0%
45			2	258	2	0.01	0.22	0.04	0.00	0.01	0.55		2.4%	40.1%	7.8%	0.5%	2.4%	100.0%
46			3	259	2	0.01	0.30	0.07	0.00	0.02	0.49		2.8%	60.4%	13.4%	0.6%	3.4%	100.0%
47			4	260	2	0.01	0.19	0.10	0.00	0.02	0.38		2.6%	51.1%	25.3%	0.8%	3.9%	100.0%
48			5	261	4	0.04	0.70	0.12	0.01	0.03	1.26		2.9%	55.6%	9.3%	0.6%	2.6%	100.0%
49			6	262	4	0.05	0.60	0.10	0.01	0.02	1.15		4.0%	52.0%	8.9%	0.4%	2.1%	100.0%
50			7	263	4	0.04	0.39	0.03	0.00	0.02	0.97		3.6%	39.8%	3.2%	0.3%	2.3%	100.0%
51			8	264	4	0.04	0.56	0.10	0.01	0.03	1.01		4.2%	55.2%	10.3%	1.0%	2.8%	100.0%
52			9	265	4	0.03	0.49	0.14	0.01	0.03	0.91		3.6%	54.5%	15.7%	0.9%	3.4%	100.0%
53			10	266	4	0.05	0.48	0.04	0.00	0.01	0.99		4.7%	48.8%	4.1%	0.3%	1.3%	100.0%
54			11	267	4	0.03	0.41	0.09	0.01	0.02	1.03		3.2%	39.5%	8.3%	0.7%	1.7%	100.0%
55			12	268	10	0.06	1.68	0.80	0.03	0.15	2.62		2.2%	63.9%	30.6%	1.0%	5.6%	100.0%
56			13	269	10	0.13	1.61	0.39	0.01	0.07	2.72		4.6%	59.2%	14.4%	0.4%	2.7%	100.0%
57			14	270	10	0.09	1.07	0.32	0.01	0.05	1.95		4.6%	54.8%	16.5%	0.4%	2.6%	100.0%
58			15	271	10	0.12	1.11	0.14	0.01	0.04	2.37		4.9%	46.9%	5.9%	0.4%	1.5%	100.0%
59			16	272	10	0.05	1.38	0.59	0.04	0.11	2.17		2.1%	63.4%	27.1%	1.8%	4.9%	100.0%
60			17	273	10	0.10	1.64	0.62	0.02	0.08	2.87		3.3%	57.3%	21.6%	0.6%	2.8%	100.0%
61			18	274	10	0.17	1.17	0.29	0.01	0.05	2.52		6.9%	46.6%	11.7%	0.4%	2.1%	100.0%
62			19	275	10	0.10	1.02	0.10	0.01	0.04	1.98		4.9%	51.8%	4.8%	0.3%	1.8%	100.0%
63			20	276	10	0.08	1.43	0.34	0.01	0.07	2.16		3.8%	66.2%	15.9%	0.6%	3.1%	100.0%

	4cm2 PD(mW/cm2) at 10mm evaluation distance						max ratio out of all beams at 10mm evaluation distance							4cm2 PD(mW/cm2) at 5mm evaluation distance		max ratio out of all beams at 5mm evaluation distance	
							65.1%	6.5%	29.4%	21.3%	2.5%	3.3%	65.1%			4.9%	84.1%
No.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(worst-surface 2mm)	ratio (Left 10mm)/(worst-surface 2mm)	ratio (Top 10mm)/(worst-surface 2mm)	ratio (Bottom 10mm)/(worst-surface 2mm)	ratio (Front 10mm)/(worst-surface 2mm)	ratio (Rear 10mm)/(worst-surface 2mm)	S1(Front)	S2(Rear)	ratio (Front 5mm)/(worst-surface 2mm)	ratio (Rear 5mm)/(worst-surface 2mm)
1	0.00	0.03	0.01	0.00	0.00	0.11	40.1%	1.5%	12.4%	3.6%	0.7%	0.4%	40.1%	0.00	0.19	0.7%	67.9%
2	0.01	0.04	0.01	0.00	0.00	0.11	36.0%	1.7%	13.1%	3.4%	0.7%	0.7%	36.0%	0.00	0.19	1.0%	65.0%
3	0.01	0.04	0.01	0.00	0.00	0.12	39.9%	1.7%	13.7%	3.4%	0.3%	0.7%	39.9%	0.00	0.20	1.0%	68.9%
4	0.01	0.04	0.02	0.00	0.00	0.12	49.6%	2.0%	16.7%	6.9%	0.8%	0.4%	49.6%	0.00	0.18	0.8%	73.6%
5	0.00	0.03	0.03	0.00	0.00	0.10	50.2%	1.5%	15.6%	12.2%	0.5%	1.0%	50.2%	0.00	0.15	1.0%	74.6%
6	0.01	0.11	0.03	0.00	0.00	0.30	47.0%	1.9%	16.3%	4.8%	0.6%	0.6%	47.0%	0.01	0.44	1.1%	68.9%
7	0.01	0.11	0.03	0.00	0.00	0.30	57.0%	2.4%	21.2%	4.7%	0.2%	0.6%	57.0%	0.00	0.42	0.8%	79.0%
8	0.02	0.11	0.01	0.00	0.00	0.28	53.6%	3.0%	20.3%	1.0%	0.2%	0.4%	53.6%	0.00	0.40	0.6%	76.6%
9	0.01	0.09	0.03	0.01	0.00	0.27	46.0%	2.4%	15.3%	5.1%	1.0%	0.7%	46.0%	0.01	0.40	1.2%	68.1%
10	0.01	0.09	0.03	0.00	0.00	0.25	44.6%	2.1%	16.0%	5.8%	0.7%	0.7%	44.6%	0.01	0.38	1.2%	67.5%
11	0.01	0.11	0.01	0.00	0.00	0.26	54.4%	2.8%	23.5%	2.1%	0.2%	0.4%	54.4%	0.00	0.36	0.6%	76.8%
12	0.02	0.10	0.02	0.01	0.00	0.29	51.2%	3.0%	17.4%	3.0%	0.9%	0.5%	51.2%	0.01	0.42	1.1%	74.6%
13	0.03	0.29	0.24	0.01	0.02	0.70	50.8%	1.9%	20.8%	17.5%	0.7%	1.5%	50.8%	0.03	1.07	2.3%	77.6%
14	0.04	0.32	0.14	0.00	0.01	0.83	63.0%	3.1%	24.5%	10.3%	0.2%	0.8%	63.0%	0.02	1.10	1.3%	83.3%
15	0.04	0.22	0.04	0.00	0.01	0.53	60.0%	4.0%	25.5%	4.0%	0.2%	0.8%	60.0%	0.01	0.68	1.1%	76.7%
16	0.05	0.21	0.07	0.01	0.01	0.56	53.9%	4.3%	19.8%	6.3%	0.5%	0.6%	53.9%	0.01	0.77	0.9%	73.9%
17	0.02	0.27	0.18	0.03	0.02	0.68	58.8%	1.4%	23.3%	15.5%	2.5%	1.5%	58.8%	0.03	0.90	2.2%	77.9%
18	0.03	0.29	0.24	0.01	0.02	0.72	52.0%	2.1%	21.2%	17.4%	0.7%	1.5%	52.0%	0.03	1.08	2.3%	78.1%
19	0.04	0.27	0.04	0.01	0.01	0.66	58.9%	3.1%	24.2%	3.7%	0.4%	0.5%	58.9%	0.01	0.87	0.8%	77.8%
20	0.04	0.22	0.02	0.00	0.01	0.56	59.9%	4.2%	23.7%	2.1%	0.4%	0.6%	59.9%	0.01	0.70	0.9%	75.2%
21	0.04	0.25	0.07	0.01	0.01	0.69	59.6%	3.6%	21.7%	6.2%	0.7%	0.6%	59.6%	0.01	0.92	1.0%	79.5%
22	0.01	0.03	0.00	0.00	0.00	0.07	45.3%	4.1%	18.9%	2.7%	0.7%	1.4%	45.3%	0.00	0.11	1.4%	73.0%
23	0.01	0.03	0.01	0.00	0.00	0.09	39.6%	2.3%	12.4%	4.1%	0.5%	1.4%	39.6%	0.00	0.15	1.4%	69.6%
24	0.00	0.02	0.01	0.00	0.00	0.09	43.9%	1.5%	12.1%	6.1%	0.5%	1.0%	43.9%	0.00	0.14	1.0%	72.2%
25	0.00	0.03	0.01	0.00	0.01	0.09	41.8%	1.8%	14.1%	6.4%	0.0%	2.3%	41.8%	0.01	0.16	2.7%	70.9%
26	0.00	0.02	0.01	0.00	0.00	0.07	49.6%	2.2%	12.2%	10.1%	0.7%	1.4%	49.6%	0.00	0.11	2.2%	75.5%
27	0.01	0.09	0.03	0.00	0.01	0.23	49.0%	2.6%	18.9%	6.7%	0.4%	1.1%	49.0%	0.01	0.32	1.7%	68.3%
28	0.01	0.08	0.03	0.00	0.01	0.21	52.2%	3.2%	18.9%	6.9%	0.2%	1.5%	52.2%	0.01	0.30	2.0%	73.3%
29	0.01	0.05	0.01	0.00	0.00	0.22	57.9%	2.1%	13.9%	3.2%	0.3%	0.8%	57.9%	0.01	0.30	1.3%	79.9%
30	0.01	0.05	0.02	0.00	0.00	0.15	41.6%	2.7%	14.1%	5.2%	0.5%	1.1%	41.6%	0.01	0.25	1.6%	67.9%
31	0.01	0.07	0.04	0.00	0.01	0.22	48.4%	1.1%	16.6%	9.4%	0.4%	2.0%	48.4%	0.01	0.31	2.7%	68.6%
32	0.01	0.05	0.01	0.00	0.00	0.17	47.7%	3.2%	14.7%	2.9%	0.3%	0.9%	47.7%	0.00	0.25	1.2%	71.7%
33	0.01	0.05	0.03	0.00	0.00	0.25	63.5%	2.3%	11.4%	6.3%	0.3%	1.0%	63.5%	0.01	0.33	1.5%	83.2%
34	0.01	0.17	0.14	0.01	0.02	0.49	57.4%	1.4%	20.0%	16.7%	0.8%	2.4%	57.4%	0.03	0.65	3.5%	76.1%
35	0.03	0.20	0.06	0.00	0.02	0.55	57.2%	2.6%	21.1%	6.3%	0.3%	1.8%	57.2%	0.02	0.73	2.4%	76.5%
36	0.03	0.10	0.07	0.00	0.01	0.38	58.7%	4.2%	14.9%	11.0%	0.3%	1.7%	58.7%	0.02	0.52	2.8%	80.6%
37	0.03	0.14	0.02	0.00	0.01	0.55	59.2%	2.9%	15.1%	2.5%	0.2%	0.8%	59.2%	0.01	0.73	1.0%	79.2%
38	0.02	0.17	0.11	0.01	0.02	0.39	53.1%	2.2%	22.9%	15.4%	1.2%	3.3%	53.1%	0.04	0.53	4.9%	72.8%
39	0.02	0.22	0.08	0.00	0.02	0.63	60.9%	1.6%	20.8%	7.2%	0.3%	1.7%	60.9%	0.03	0.83	2.4%	80.0%
40	0.05	0.14	0.08	0.00	0.01	0.40	50.8%	6.5%	17.2%	9.6%	0.3%	1.4%	50.8%	0.01	0.58	1.8%	73.9%
41	0.03	0.09	0.02	0.00	0.01	0.52	65.1%	4.0%	11.8%	2.1%	0.3%	0.9%	65.1%	0.01	0.67	1.4%	84.1%
42	0.02	0.18	0.05	0.00	0.01	0.45	55.3%	3.0%	21.7%	6.0%	0.2%	1.5%	55.3%	0.02	0.64	2.1%	79.2%
43	0.02	0.07	0.02	0.00	0.00	0.22	44.8%	3.9%	14.0%	4.5%	0.4%	0.6%	44.8%	0.01	0.35	1.0%	70.2%
44	0.02	0.09	0.03	0.00	0.01	0.21	38.5%	3.0%	16.9%	5.4%	0.6%	1.3%	38.5%	0.01	0.37	2.0%	68.7%
45	0.01	0.08	0.03	0.00	0.01	0.22	40.1%	2.2%	14.5%	5.4%	0.5%	1.1%	40.1%	0.01	0.37	1.6%	67.3%
46	0.01	0.09	0.04	0.00	0.01	0.23	47.3%	2.4%	18.5%	8.1%	0.6%	1.8%	47.3%	0.01	0.35	2.4%	70.4%
47	0.01	0.06	0.06	0.00	0.01	0.20	51.8%	2.4%	15.3%	16.1%	0.5%	1.6%	51.8%	0.01	0.28	2.6%	73.9%
48	0.03	0.27	0.08	0.01	0.02	0.62	49.3%	2.5%	21.1%	6.5%	0.6%	1.3%	49.3%	0.03	0.90	2.0%	71.3%
49	0.04	0.24	0.07	0.00	0.01	0.62	53.8%	3.6%	20.9%	5.9%	0.3%	1.2%	53.8%	0.02	0.85	1.6%	73.9%
50	0.03	0.14	0.02	0.00	0.01	0.51	52.4%	3.1%	14.2%	2.2%	0.3%	0.6%	52.4%	0.01	0.74	1.1%	76.7%
51	0.04	0.19	0.08	0.01	0.01	0.44	43.7%	3.8%	19.1%	7.6%	0.9%	1.2%	43.7%	0.02	0.70	2.0%	69.7%
52	0.03	0.17	0.10	0.01	0.02	0.45	50.1%	3.2%	19.1%	11.1%	0.9%	1.7%	50.1%	0.02	0.64	2.5%	70.6%
53	0.04	0.18	0.03	0.00	0.01	0.48	48.2%	4.0%	18.2%	2.5%	0.2%	0.6%	48.2%	0.01	0.74	0.9%	74.5%
54	0.03	0.14	0.05	0.01	0.01	0.55	53.5%	2.7%	14.0%	5.0%	0.7%	0.8%	53.5%	0.01	0.79	1.3%	76.6%
55	0.05	0.62	0.56	0.02	0.07	1.47	56.2%	2.0%	23.6%	21.3%	0.9%	2.8%	56.2%	0.11	2.09	4.2%	79.5%
56	0.12	0.65	0.28	0.01	0.05	1.74	64.0%	4.3%	23.8%	10.4%	0.4%	1.7%	64.0%	0.06	2.25	2.2%	82.7%
57	0.08	0.43	0.18	0.01	0.02	1.13	57.8%	4.1%	22.0%	9.4%	0.4%	0.9%	57.8%	0.03	1.54	1.4%	78.9%
58	0.10	0.42	0.10	0.01	0.02	1.39	58.8%	4.3%	17.8%	4.2%	0.4%	0.8%	58.8%	0.03	1.85	1.2%	78.2%
59	0.04	0.60	0.37	0.04	0.05	1.32	60.7%	1.7%	27.4%	16.9%	1.8%	2.4%	60.7%	0.08	1.74	3.7%	79.9%
60	0.09	0.60	0.43	0.02	0.05	1.60	55.9%	3.0%	21.1%	15.1%	0.6%	1.6%	55.9%	0.06	2.27	2.2%	79.2%
61	0.15	0.48	0.19	0.01	0.03	1.39	55.2%	6.1%	18.9%	7.4%	0.4%	1.0%	55.2%	0.03	1.93	1.3%	76.4%
62	0.09	0.40	0.05	0.01	0.02	1.24	62.9%	4.3%	20.1%	2.3%	0.3%	0.9%	62.9%	0.02	1.59	1.2%	80.4%
63	0.07	0.64	0.15	0.01	0.03	1.30	60.2%	3.4%	29.4%	6.7%	0.6%	1.5%	60.2%	0.05	1.72	2.2%	79.7%

Table 5. PD of Ant L – patch antenna (24GHz – n258)

- L–patch Low CH

						4cm2 PD(mW/cm2)							max ratio out of all beams at 2mm evaluation distance					
													19.1%	52.3%	28.4%	2.6%	10.3%	100.0%
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	per Beam Back-off (dB)	ratio (Right 2mm)/(worst-surface 2mm)	ratio (Left 2mm)/(worst-surface 2mm)	ratio (Top 2mm)/(worst-surface 2mm)	ratio (Bottom 2mm)/(worst-surface 2mm)	ratio (Fomt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)
1			0		1	0.02	0.06	0.02	0.00	0.02	0.18		10.1%	34.3%	8.4%	1.1%	8.4%	100.0%
2			1		1	0.01	0.03	0.03	0.00	0.01	0.13		6.1%	24.4%	21.4%	1.5%	4.6%	100.0%
3			2		1	0.01	0.04	0.03	0.00	0.01	0.18		5.5%	19.1%	13.7%	1.6%	6.0%	100.0%
4			3		1	0.02	0.08	0.05	0.00	0.01	0.16		9.9%	48.8%	27.8%	0.6%	6.8%	100.0%
5			4		1	0.02	0.07	0.03	0.00	0.01	0.18		10.3%	41.7%	17.7%	1.1%	7.4%	100.0%
6			5		2	0.03	0.14	0.09	0.00	0.03	0.32		9.1%	45.0%	28.4%	1.3%	8.1%	100.0%
7			6		2	0.05	0.14	0.05	0.00	0.02	0.44		10.5%	31.8%	10.8%	0.5%	5.0%	100.0%
8			7		2	0.03	0.08	0.05	0.00	0.02	0.37		9.2%	22.5%	13.8%	0.8%	4.3%	100.0%
9			8		2	0.02	0.12	0.02	0.01	0.02	0.30		6.3%	38.4%	7.6%	2.6%	7.9%	100.0%
10			9		2	0.02	0.09	0.06	0.01	0.03	0.39		5.2%	22.4%	16.2%	1.3%	6.7%	100.0%
11			10		2	0.03	0.08	0.05	0.00	0.02	0.37		9.2%	22.5%	13.8%	0.8%	4.3%	100.0%
12			11		2	0.03	0.12	0.03	0.01	0.02	0.35		8.5%	32.8%	7.7%	2.0%	6.0%	100.0%
13			12		5	0.04	0.34	0.17	0.00	0.08	0.80		4.6%	42.0%	20.9%	0.5%	10.3%	100.0%
14			13		5	0.09	0.25	0.14	0.01	0.05	1.00		8.6%	24.9%	13.8%	0.5%	5.0%	100.0%
15			14		5	0.16	0.40	0.11	0.01	0.05	0.92		17.6%	43.3%	11.5%	0.9%	5.5%	100.0%
16			15		5	0.11	0.33	0.16	0.01	0.05	0.78		14.3%	41.9%	21.0%	0.9%	6.6%	100.0%
17			16		5	0.09	0.19	0.07	0.02	0.04	1.01		8.7%	18.5%	6.8%	2.1%	3.9%	100.0%
18			17		5	0.05	0.21	0.14	0.01	0.07	0.79		5.7%	26.2%	17.8%	0.8%	8.7%	100.0%
19			18		5	0.20	0.38	0.19	0.01	0.05	1.05		19.1%	35.9%	17.6%	0.6%	5.1%	100.0%
20			19		5	0.15	0.29	0.08	0.01	0.04	1.08		13.9%	26.7%	6.9%	0.6%	3.6%	100.0%
21			20		5	0.14	0.19	0.08	0.01	0.04	1.13		12.1%	16.8%	7.5%	0.8%	3.2%	100.0%
22			256		1	0.00	0.12	0.01	0.00	0.01	0.28		1.1%	42.4%	3.3%	1.4%	2.5%	100.0%
23			257		1	0.00	0.09	0.02	0.00	0.00	0.25		0.8%	35.7%	6.0%	0.8%	1.6%	100.0%
24			258		1	0.00	0.10	0.02	0.00	0.00	0.24		1.3%	42.3%	8.4%	0.8%	1.7%	100.0%
25			259		1	0.00	0.04	0.03	0.00	0.00	0.27		1.5%	16.1%	12.0%	0.7%	1.1%	100.0%
26			260		1	0.00	0.05	0.03	0.00	0.01	0.26		1.5%	17.6%	10.0%	1.1%	1.9%	100.0%
27			261		2	0.01	0.18	0.06	0.00	0.01	0.43		1.4%	42.5%	14.1%	0.5%	2.1%	100.0%
28			262		2	0.01	0.21	0.04	0.00	0.01	0.50		1.2%	42.3%	8.6%	0.4%	2.6%	100.0%
29			263		2	0.01	0.30	0.01	0.00	0.01	0.77		0.9%	38.4%	1.7%	0.5%	1.4%	100.0%
30			264		2	0.01	0.30	0.01	0.01	0.02	0.69		0.9%	43.1%	0.7%	1.2%	2.3%	100.0%
31			265		2	0.01	0.23	0.04	0.00	0.01	0.55		1.1%	41.6%	7.5%	0.2%	2.2%	100.0%
32	M	Patch	266		2	0.01	0.28	0.02	0.00	0.01	0.73		0.8%	38.8%	3.3%	0.3%	1.1%	100.0%
33			267		2	0.01	0.30	0.01	0.01	0.01	0.74		0.8%	40.2%	1.1%	0.8%	1.9%	100.0%
34			268		5	0.03	0.47	0.35	0.00	0.04	1.32		2.0%	35.6%	26.1%	0.2%	3.3%	100.0%
35			269		5	0.05	0.53	0.22	0.01	0.02	1.52		3.0%	35.0%	14.5%	0.3%	1.4%	100.0%
36			270		5	0.05	0.53	0.04	0.00	0.02	1.68		2.7%	31.7%	2.3%	0.1%	1.0%	100.0%
37			271		5	0.04	0.69	0.03	0.00	0.03	1.84		2.0%	37.3%	1.6%	0.1%	1.5%	100.0%
38			272		5	0.03	0.75	0.03	0.02	0.04	1.74		2.0%	43.1%	1.7%	1.2%	2.5%	100.0%
39			273		5	0.04	0.50	0.31	0.00	0.03	1.48		2.4%	33.9%	20.7%	0.3%	2.3%	100.0%
40			274		5	0.05	0.57	0.14	0.01	0.02	1.68		3.0%	33.6%	8.1%	0.4%	0.9%	100.0%
41			275		5	0.04	0.62	0.04	0.00	0.02	1.76		2.5%	35.3%	2.1%	0.1%	1.3%	100.0%
42			276		5	0.03	0.74	0.03	0.01	0.04	1.83		1.7%	40.5%	1.7%	0.3%	1.9%	100.0%
43			0	256	2	0.03	0.25	0.04	0.01	0.04	0.48		5.8%	52.3%	9.1%	1.9%	7.3%	100.0%
44			1	257	2	0.01	0.16	0.07	0.01	0.01	0.53		1.9%	30.5%	12.8%	1.3%	2.5%	100.0%
45			2	258	2	0.02	0.17	0.07	0.01	0.02	0.53		3.2%	32.8%	12.5%	1.5%	3.4%	100.0%
46			3	259	2	0.02	0.15	0.10	0.00	0.02	0.53		4.0%	28.6%	19.1%	0.8%	3.4%	100.0%
47			4	260	2	0.03	0.19	0.08	0.01	0.03	0.47		5.3%	40.3%	17.2%	1.9%	5.5%	100.0%
48			5	261	4	0.05	0.36	0.15	0.01	0.05	0.84		5.8%	43.3%	18.0%	1.3%	6.1%	100.0%
49			6	262	4	0.06	0.39	0.14	0.01	0.04	1.03		5.9%	37.7%	13.7%	0.7%	3.9%	100.0%
50			7	263	4	0.05	0.53	0.10	0.01	0.05	1.17		4.3%	45.6%	8.9%	1.0%	4.2%	100.0%
51			8	264	4	0.03	0.63	0.04	0.03	0.06	1.27		2.5%	49.4%	2.9%	2.1%	4.6%	100.0%
52			9	265	4	0.03	0.38	0.16	0.01	0.05	1.21		2.8%	31.1%	13.6%	0.7%	4.3%	100.0%
53			10	266	4	0.05	0.46	0.13	0.01	0.04	1.21		4.0%	38.2%	10.6%	0.7%	3.5%	100.0%
54			11	267	4	0.05	0.61	0.05	0.02	0.06	1.26		3.6%	48.6%	3.8%	1.8%	4.5%	100.0%
55			12	268	10	0.12	1.19	0.88	0.01	0.17	3.41		3.4%	34.8%	25.9%	0.3%	5.0%	100.0%
56			13	269	10	0.20	1.06	0.47	0.02	0.11	3.42		5.9%	31.0%	13.8%	0.4%	3.2%	100.0%
57			14	270	10	0.20	1.11	0.13	0.01	0.09	3.11		6.5%	35.8%	4.0%	0.5%	3.0%	100.0%
58			15	271	10	0.14	1.03	0.25	0.01	0.11	2.91		4.8%	35.3%	8.7%	0.4%	3.8%	100.0%
59			16	272	10	0.15	1.30	0.15	0.06	0.10	3.59		4.1%	36.3%	4.2%	1.8%	2.8%	100.0%
60			17	273	10	0.14	1.05	0.68	0.01	0.15	3.42		4.0%	30.6%	19.8%	0.3%	4.4%	100.0%
61			18	274	10	0.32	1.17	0.36	0.02	0.10	3.39		9.5%	34.5%	10.6%	0.6%	3.0%	100.0%
62			19	275	10	0.18	0.95	0.19	0.01	0.09	3.29		5.6%	28.9%	5.9%	0.3%	2.7%	100.0%
63			20	276	10	0.20	1.17	0.17	0.02	0.09	3.48		5.6%	33.5%	4.7%	0.5%	2.5%	100.0%

	4cm2 PD(mW/cm2) at 10mm evaluation distance						max ratio out of all beams at 10mm evaluation distance							4cm2 PD(mW/cm2) at 5mm evaluation distance		max ratio out of all beams at 5mm evaluation distance	
							67.5%	16.1%	24.7%	17.9%	1.8%	3.4%	67.5%			5.1%	84.9%
No.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(worst-surface 2mm)	ratio (Left 10mm)/(worst-surface 2mm)	ratio (Top 10mm)/(worst-surface 2mm)	ratio (Bottom 10mm)/(worst-surface 2mm)	ratio (Front 10mm)/(worst-surface 2mm)	ratio (Rear 10mm)/(worst-surface 2mm)	S1(Front)	S2(Rear)	ratio (Front 5mm)/(worst-surface 2mm)	ratio (Rear 5mm)/(worst-surface 2mm)
1	0.01	0.03	0.01	0.00	0.01	0.06	36.0%	7.9%	14.0%	6.2%	0.6%	3.4%	36.0%	0.01	0.11	5.1%	62.4%
2	0.01	0.01	0.02	0.00	0.00	0.05	35.1%	5.3%	8.4%	11.5%	0.8%	1.5%	35.1%	0.00	0.08	2.3%	64.1%
3	0.01	0.01	0.01	0.00	0.00	0.07	40.4%	4.9%	7.7%	7.7%	1.1%	1.1%	40.4%	0.01	0.12	2.7%	67.8%
4	0.01	0.04	0.02	0.00	0.00	0.06	34.0%	8.6%	24.7%	13.6%	0.6%	2.5%	34.0%	0.01	0.10	4.3%	61.1%
5	0.01	0.03	0.02	0.00	0.01	0.05	30.9%	8.0%	19.4%	10.9%	1.1%	2.9%	30.9%	0.01	0.10	4.6%	58.3%
6	0.03	0.07	0.04	0.00	0.01	0.11	35.3%	7.8%	22.8%	13.4%	0.9%	2.8%	35.3%	0.02	0.19	5.0%	59.4%
7	0.04	0.06	0.03	0.00	0.01	0.15	35.2%	8.7%	14.4%	6.4%	0.5%	1.6%	35.2%	0.01	0.28	2.7%	63.6%
8	0.03	0.04	0.04	0.00	0.01	0.15	40.7%	7.6%	9.5%	9.8%	0.8%	1.9%	40.7%	0.01	0.24	3.0%	66.1%
9	0.02	0.03	0.01	0.01	0.01	0.11	36.4%	5.0%	10.6%	4.6%	1.7%	2.0%	36.4%	0.01	0.19	3.6%	61.9%
10	0.02	0.03	0.04	0.00	0.01	0.17	43.6%	4.4%	7.0%	9.3%	1.0%	1.5%	43.6%	0.01	0.28	2.8%	71.4%
11	0.03	0.04	0.04	0.00	0.01	0.15	40.7%	7.6%	9.5%	9.8%	0.8%	1.9%	40.7%	0.01	0.24	3.0%	66.1%
12	0.02	0.03	0.02	0.01	0.01	0.14	40.7%	6.8%	9.7%	5.1%	1.4%	2.0%	40.7%	0.01	0.22	3.1%	63.8%
13	0.03	0.13	0.12	0.00	0.02	0.36	44.8%	3.6%	16.4%	15.2%	0.4%	2.4%	44.8%	0.04	0.56	4.9%	69.3%
14	0.08	0.12	0.10	0.00	0.02	0.41	40.4%	7.5%	12.2%	9.6%	0.4%	1.8%	40.4%	0.03	0.68	3.0%	67.5%
15	0.13	0.20	0.06	0.01	0.02	0.36	38.9%	14.6%	21.6%	7.0%	0.8%	2.5%	38.9%	0.03	0.59	3.7%	64.2%
16	0.09	0.14	0.11	0.01	0.02	0.29	37.0%	12.1%	17.5%	13.8%	0.8%	2.7%	37.0%	0.03	0.50	4.3%	64.0%
17	0.07	0.07	0.04	0.02	0.01	0.42	41.5%	6.8%	7.3%	4.2%	1.5%	1.3%	41.5%	0.02	0.69	2.0%	68.3%
18	0.04	0.09	0.10	0.00	0.02	0.33	41.7%	4.5%	10.8%	12.6%	0.5%	2.4%	41.7%	0.04	0.55	4.4%	69.4%
19	0.17	0.19	0.12	0.01	0.03	0.41	38.8%	16.1%	18.4%	11.7%	0.5%	2.5%	38.8%	0.04	0.67	3.6%	63.5%
20	0.12	0.11	0.05	0.01	0.02	0.48	44.6%	11.4%	10.2%	4.7%	0.5%	2.0%	44.6%	0.03	0.72	2.8%	66.9%
21	0.11	0.09	0.05	0.01	0.02	0.49	43.5%	9.3%	7.8%	4.8%	0.5%	1.5%	43.5%	0.02	0.77	2.0%	68.3%
22	0.00	0.03	0.01	0.00	0.00	0.12	44.9%	0.7%	12.3%	2.2%	1.1%	1.1%	44.9%	0.00	0.20	1.4%	73.2%
23	0.00	0.03	0.01	0.00	0.00	0.12	48.2%	0.4%	10.0%	4.0%	0.8%	0.4%	48.2%	0.00	0.19	0.8%	75.9%
24	0.00	0.03	0.01	0.00	0.00	0.11	46.0%	0.8%	12.6%	5.0%	0.8%	0.8%	46.0%	0.00	0.17	1.3%	72.8%
25	0.00	0.01	0.02	0.00	0.00	0.14	49.6%	1.1%	4.7%	7.3%	0.4%	0.4%	49.6%	0.00	0.21	0.7%	75.2%
26	0.00	0.02	0.02	0.00	0.00	0.12	47.1%	1.1%	6.5%	6.1%	0.8%	0.8%	47.1%	0.00	0.19	1.1%	71.6%
27	0.00	0.06	0.04	0.00	0.00	0.21	49.3%	0.9%	13.4%	8.9%	0.5%	0.7%	49.3%	0.01	0.32	1.2%	75.4%
28	0.00	0.07	0.03	0.00	0.00	0.28	55.7%	0.8%	13.8%	5.8%	0.2%	0.8%	55.7%	0.01	0.40	1.4%	79.6%
29	0.01	0.09	0.01	0.00	0.00	0.39	51.3%	0.7%	11.3%	1.3%	0.5%	0.5%	51.3%	0.01	0.60	0.9%	77.9%
30	0.01	0.09	0.00	0.01	0.01	0.34	49.2%	0.7%	13.2%	0.6%	1.0%	0.7%	49.2%	0.01	0.52	1.5%	75.5%
31	0.00	0.07	0.03	0.00	0.00	0.30	55.5%	0.7%	13.6%	5.1%	0.2%	0.7%	55.5%	0.01	0.44	1.3%	79.7%
32	0.01	0.09	0.02	0.00	0.00	0.39	52.7%	0.7%	11.8%	2.3%	0.1%	0.4%	52.7%	0.01	0.57	0.7%	78.6%
33	0.01	0.09	0.01	0.01	0.01	0.37	49.7%	0.7%	12.1%	0.7%	0.8%	0.7%	49.7%	0.01	0.56	1.2%	76.5%
34	0.02	0.15	0.21	0.00	0.02	0.64	48.6%	1.5%	11.3%	16.1%	0.2%	1.1%	48.6%	0.03	0.94	2.0%	71.4%
35	0.03	0.21	0.13	0.00	0.01	0.85	56.1%	2.2%	13.5%	8.7%	0.3%	0.5%	56.1%	0.01	1.21	0.8%	79.4%
36	0.03	0.22	0.02	0.00	0.01	1.13	67.5%	2.0%	12.9%	1.4%	0.1%	0.5%	67.5%	0.01	1.42	0.7%	84.9%
37	0.03	0.27	0.02	0.00	0.01	1.19	64.7%	1.5%	14.8%	1.0%	0.1%	0.8%	64.7%	0.02	1.54	1.1%	83.5%
38	0.03	0.27	0.02	0.02	0.02	0.95	54.8%	1.5%	15.4%	1.2%	1.0%	1.0%	54.8%	0.03	1.34	1.7%	76.9%
39	0.03	0.18	0.19	0.00	0.01	0.78	52.3%	1.8%	12.1%	13.0%	0.2%	0.9%	52.3%	0.02	1.12	1.4%	75.4%
40	0.04	0.23	0.07	0.01	0.01	1.03	61.0%	2.3%	13.6%	4.3%	0.3%	0.5%	61.0%	0.01	1.39	0.7%	82.7%
41	0.04	0.25	0.03	0.00	0.01	1.17	66.6%	2.0%	14.3%	1.4%	0.1%	0.8%	66.6%	0.02	1.49	1.0%	84.5%
42	0.02	0.28	0.02	0.01	0.02	1.13	61.8%	1.2%	15.4%	1.1%	0.3%	0.8%	61.8%	0.02	1.49	1.3%	81.5%
43	0.02	0.09	0.03	0.01	0.02	0.20	40.9%	4.6%	18.7%	6.6%	1.7%	3.1%	40.9%	0.02	0.33	4.6%	68.7%
44	0.01	0.05	0.04	0.01	0.00	0.22	41.9%	1.7%	9.5%	8.0%	1.1%	0.8%	41.9%	0.01	0.37	1.3%	69.7%
45	0.02	0.05	0.04	0.01	0.01	0.23	44.2%	2.8%	10.0%	8.3%	1.3%	0.9%	44.2%	0.01	0.38	1.5%	71.5%
46	0.02	0.06	0.06	0.00	0.01	0.20	38.6%	3.4%	11.9%	10.6%	0.8%	1.3%	38.6%	0.01	0.35	2.1%	65.9%
47	0.02	0.08	0.05	0.01	0.01	0.20	43.0%	4.0%	16.9%	11.0%	1.5%	2.3%	43.0%	0.02	0.32	3.6%	68.4%
48	0.04	0.15	0.10	0.01	0.02	0.39	46.1%	4.9%	17.7%	12.1%	1.1%	1.9%	46.1%	0.03	0.59	3.2%	69.8%
49	0.05	0.15	0.10	0.01	0.01	0.46	44.7%	4.8%	14.9%	9.7%	0.5%	1.3%	44.7%	0.02	0.74	2.0%	71.6%
50	0.04	0.19	0.08	0.01	0.02	0.55	47.3%	3.5%	16.5%	6.6%	0.9%	1.7%	47.3%	0.03	0.85	2.8%	72.6%
51	0.03	0.17	0.02	0.02	0.02	0.57	44.8%	2.0%	13.7%	1.8%	1.8%	1.5%	44.8%	0.03	0.90	2.5%	71.0%
52	0.03	0.13	0.11	0.01	0.01	0.59	49.2%	2.2%	10.7%	9.0%	0.6%	0.9%	49.2%	0.02	0.89	1.8%	74.1%
53	0.04	0.18	0.09	0.01	0.02	0.57	47.3%	3.4%	14.5%	7.8%	0.6%	1.4%	47.3%	0.03	0.88	2.4%	72.5%
54	0.04	0.18	0.04	0.02	0.02	0.56	44.9%	3.0%	14.6%	2.9%	1.6%	1.6%	44.9%	0.03	0.90	2.6%	71.3%
55	0.08	0.39	0.61	0.01	0.04	1.57	46.1%	2.3%	11.3%	17.9%	0.2%	1.3%	46.1%	0.08	2.40	2.5%	70.3%
56	0.16	0.45	0.25	0.01	0.03	1.70	49.7%	4.7%	13.1%	7.4%	0.4%	0.8%	49.7%	0.05	2.53	1.6%	73.9%
57	0.18	0.49	0.07	0.01	0.05	1.83	58.9%	5.8%	15.9%	2.4%	0.4%	1.5%	58.9%	0.07	2.45	2.2%	79.0%
58	0.12	0.47	0.17	0.01	0.06	1.53	52.7%	4.1%	16.1%	5.7%	0.3%	2.1%	52.7%	0.08	2.19	2.8%	75.4%
59	0.11	0.48	0.10	0.05	0.05	1.79	49.9%	3.1%	13.4%	2.9%	1.3%	1.3%	49.9%	0.07	2.63	2.0%	73.2%
60	0.11	0.39	0.46	0.01	0.03	1.69	49.4%	3.3%	11.4%	13.5%	0.2%	1.0%	49.4%	0.07	2.48	2.0%	72.6%
61	0.27	0.54	0.23	0.02	0.05	1.80	53.1%	8.0%	16.0%	6.9%	0.5%	1.4%	53.1%	0.07	2.56	2.1%	75.4%
62	0.15	0.43	0.12	0.01	0.06	1.96	59.7%	4.6%	13.2%	3.7%	0.3%	1.8%	59.7%	0.08	2.59	2.3%	79.0%
63	0.15	0.49	0.12	0.01	0.05	1.88	54.0%	4.3%	14.0%	3.4%	0.4%	1.4%	54.0%	0.07	2.65	2.0%	76.0%

- L–patch Mid CH

						4cm2 PD(mW/cm2)							max ratio out of all beams at 2mm evaluation distance					
													16.5%	57.5%	24.8%	2.2%	9.0%	100.0%
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	per Beam Back-off (dB)	ratio (Right 2mm)/(worst-surface 2mm)	ratio (Left 2mm)/(worst-surface 2mm)	ratio (Top 2mm)/(worst-surface 2mm)	ratio (Bottom 2mm)/(worst-surface 2mm)	ratio (Fomt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)
1			0		1	0.02	0.07	0.02	0.00	0.02	0.18		8.3%	41.1%	8.9%	0.6%	8.3%	100.0%
2			1		1	0.01	0.04	0.02	0.00	0.01	0.16		6.7%	25.8%	13.5%	1.2%	3.7%	100.0%
3			2		1	0.01	0.04	0.02	0.00	0.01	0.18		6.2%	21.3%	13.5%	1.7%	5.6%	100.0%
4			3		1	0.01	0.09	0.04	0.00	0.01	0.15		7.2%	57.5%	24.2%	2.0%	7.2%	100.0%
5			4		1	0.02	0.07	0.03	0.00	0.01	0.16		9.8%	41.5%	17.7%	1.8%	6.7%	100.0%
6			5		2	0.02	0.17	0.08	0.01	0.02	0.33		7.3%	51.1%	23.6%	1.5%	6.0%	100.0%
7			6		2	0.04	0.15	0.05	0.00	0.02	0.41		8.8%	36.1%	11.0%	0.7%	4.9%	100.0%
8			7		2	0.04	0.11	0.05	0.00	0.02	0.38		10.7%	29.3%	12.0%	0.5%	5.9%	100.0%
9			8		2	0.02	0.13	0.03	0.00	0.02	0.35		6.3%	38.4%	8.3%	1.1%	6.3%	100.0%
10			9		2	0.02	0.09	0.06	0.00	0.02	0.41		5.4%	22.5%	14.7%	1.0%	5.6%	100.0%
11			10		2	0.04	0.11	0.05	0.00	0.02	0.38		10.7%	29.3%	12.0%	0.5%	5.9%	100.0%
12			11		2	0.04	0.13	0.03	0.00	0.02	0.38		9.5%	35.3%	8.2%	0.8%	6.1%	100.0%
13			12		5	0.03	0.36	0.14	0.01	0.07	0.82		3.5%	43.3%	16.5%	0.7%	9.0%	100.0%
14			13		5	0.09	0.27	0.12	0.01	0.05	0.97		8.8%	28.1%	12.5%	0.9%	4.7%	100.0%
15			14		5	0.14	0.36	0.07	0.01	0.05	0.89		15.3%	40.5%	8.3%	1.1%	5.2%	100.0%
16			15		5	0.09	0.38	0.14	0.00	0.06	0.72		11.9%	52.3%	19.5%	0.6%	7.9%	100.0%
17			16		5	0.09	0.21	0.05	0.01	0.05	1.04		8.8%	19.7%	5.1%	1.3%	4.6%	100.0%
18			17		5	0.05	0.24	0.11	0.01	0.06	0.80		6.4%	29.4%	14.0%	0.8%	7.4%	100.0%
19			18		5	0.16	0.37	0.15	0.01	0.04	1.00		16.5%	37.3%	15.4%	0.7%	3.9%	100.0%
20			19		5	0.15	0.30	0.07	0.01	0.05	1.01		14.6%	29.5%	7.2%	0.7%	4.6%	100.0%
21			20		5	0.14	0.24	0.08	0.01	0.04	1.10		12.4%	21.5%	6.8%	0.5%	3.8%	100.0%
22			256		1	0.00	0.11	0.01	0.00	0.01	0.29		1.0%	39.6%	4.5%	1.0%	2.4%	100.0%
23			257		1	0.00	0.10	0.02	0.00	0.00	0.29		0.7%	35.5%	5.5%	0.7%	1.4%	100.0%
24			258		1	0.00	0.11	0.02	0.00	0.00	0.26		1.2%	41.1%	9.3%	0.8%	1.6%	100.0%
25			259		1	0.01	0.06	0.04	0.00	0.00	0.30		2.0%	19.7%	12.5%	0.7%	1.4%	100.0%
26			260		1	0.00	0.05	0.02	0.00	0.00	0.27		1.5%	19.0%	8.8%	1.1%	1.1%	100.0%
27			261		2	0.01	0.21	0.07	0.00	0.01	0.48		1.5%	42.9%	14.6%	0.8%	1.9%	100.0%
28			262		2	0.01	0.23	0.05	0.00	0.01	0.57		1.2%	41.3%	8.8%	0.2%	2.3%	100.0%
29			263		2	0.01	0.32	0.01	0.00	0.01	0.85		0.9%	37.9%	1.5%	0.5%	1.4%	100.0%
30			264		2	0.01	0.33	0.01	0.01	0.02	0.78		0.9%	41.8%	0.6%	1.0%	2.2%	100.0%
31			265		2	0.01	0.25	0.05	0.00	0.01	0.62		1.1%	40.4%	7.5%	0.2%	2.1%	100.0%
32	M	Patch	266		2	0.01	0.30	0.02	0.00	0.01	0.81		0.9%	37.5%	2.7%	0.2%	1.1%	100.0%
33			267		2	0.01	0.33	0.01	0.01	0.02	0.83		1.0%	39.9%	1.0%	0.8%	1.8%	100.0%
34			268		5	0.03	0.54	0.36	0.00	0.04	1.44		2.0%	37.0%	24.8%	0.3%	3.0%	100.0%
35			269		5	0.05	0.65	0.23	0.01	0.02	1.74		2.6%	37.2%	12.9%	0.3%	1.1%	100.0%
36			270		5	0.05	0.61	0.03	0.00	0.02	1.83		2.6%	33.3%	1.5%	0.1%	1.0%	100.0%
37			271		5	0.04	0.76	0.03	0.00	0.04	1.93		2.2%	39.1%	1.3%	0.1%	1.9%	100.0%
38			272		5	0.03	0.78	0.02	0.02	0.05	1.86		1.7%	42.1%	1.3%	0.9%	2.6%	100.0%
39			273		5	0.04	0.60	0.31	0.00	0.03	1.64		2.2%	36.5%	19.1%	0.2%	2.0%	100.0%
40			274		5	0.05	0.68	0.14	0.01	0.02	1.89		2.8%	36.2%	7.5%	0.3%	1.0%	100.0%
41			275		5	0.05	0.68	0.03	0.00	0.03	1.86		2.6%	36.5%	1.5%	0.2%	1.6%	100.0%
42			276		5	0.04	0.81	0.03	0.00	0.04	1.94		1.9%	41.7%	1.7%	0.2%	2.2%	100.0%
43			0	256	2	0.03	0.23	0.05	0.01	0.03	0.49		5.3%	47.7%	10.2%	1.2%	7.0%	100.0%
44			1	257	2	0.02	0.19	0.06	0.01	0.01	0.55		2.7%	34.3%	9.9%	1.4%	2.5%	100.0%
45			2	258	2	0.02	0.18	0.07	0.01	0.02	0.50		3.6%	35.6%	13.9%	1.4%	3.0%	100.0%
46			3	259	2	0.02	0.17	0.10	0.01	0.02	0.53		3.8%	31.3%	19.4%	1.7%	3.2%	100.0%
47			4	260	2	0.02	0.18	0.08	0.01	0.02	0.45		5.3%	39.7%	18.0%	2.2%	4.9%	100.0%
48			5	261	4	0.05	0.39	0.16	0.02	0.04	0.89		5.2%	43.5%	18.4%	1.8%	4.4%	100.0%
49			6	262	4	0.05	0.41	0.14	0.01	0.03	1.04		4.7%	39.2%	13.8%	0.5%	3.0%	100.0%
50			7	263	4	0.06	0.61	0.08	0.01	0.06	1.25		4.5%	48.9%	6.4%	0.6%	4.7%	100.0%
51			8	264	4	0.03	0.64	0.04	0.02	0.06	1.31		2.4%	48.6%	3.1%	1.5%	4.4%	100.0%
52			9	265	4	0.04	0.39	0.14	0.01	0.05	1.22		3.5%	31.9%	11.6%	0.5%	3.9%	100.0%
53			10	266	4	0.06	0.55	0.10	0.01	0.05	1.28		4.4%	42.6%	8.1%	0.4%	4.1%	100.0%
54			11	267	4	0.05	0.64	0.04	0.02	0.06	1.28		3.8%	50.0%	3.3%	1.2%	4.9%	100.0%
55			12	268	10	0.10	1.19	0.77	0.01	0.15	3.38		2.9%	35.3%	22.8%	0.3%	4.5%	100.0%
56			13	269	10	0.18	1.16	0.47	0.02	0.09	3.33		5.5%	34.7%	14.2%	0.6%	2.7%	100.0%
57			14	270	10	0.18	1.10	0.11	0.02	0.08	3.22		5.6%	34.1%	3.5%	0.5%	2.5%	100.0%
58			15	271	10	0.11	1.23	0.24	0.01	0.14	2.96		3.7%	41.7%	8.1%	0.2%	4.7%	100.0%
59			16	272	10	0.16	1.25	0.12	0.04	0.11	3.51		4.5%	35.6%	3.3%	1.1%	3.2%	100.0%
60			17	273	10	0.12	1.09	0.63	0.01	0.13	3.32		3.5%	32.8%	19.1%	0.4%	3.8%	100.0%
61			18	274	10	0.27	1.25	0.30	0.02	0.08	3.37		8.0%	37.1%	8.8%	0.6%	2.2%	100.0%
62			19	275	10	0.19	1.07	0.14	0.01	0.11	3.24		5.7%	33.1%	4.4%	0.4%	3.3%	100.0%
63			20	276	10	0.20	1.22	0.18	0.01	0.11	3.40		5.8%	35.8%	5.2%	0.4%	3.3%	100.0%

	4cm2 PD(mW/cm2) at 10mm evaluation distance						max ratio out of all beams at 10mm evaluation distance							4cm2 PD(mW/cm2) at 5mm evaluation distance		max ratio out of all beams at 5mm evaluation distance	
							66.2%	14.4%	27.5%	16.0%	1.6%	3.9%	66.2%			5.6%	84.1%
No.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(worst-surface 2mm)	ratio (Left 10mm)/(worst-surface 2mm)	ratio (Top 10mm)/(worst-surface 2mm)	ratio (Bottom 10mm)/(worst-surface 2mm)	ratio (Front 10mm)/(worst-surface 2mm)	ratio (Rear 10mm)/(worst-surface 2mm)	S1(Front)	S2(Rear)	ratio (Front 5mm)/(worst-surface 2mm)	ratio (Rear 5mm)/(worst-surface 2mm)
1	0.01	0.03	0.01	0.00	0.01	0.06	34.4%	6.1%	17.8%	6.1%	0.6%	3.9%	34.4%	0.01	0.11	5.6%	62.8%
2	0.01	0.01	0.01	0.00	0.00	0.06	35.0%	4.9%	8.0%	8.0%	1.2%	1.2%	35.0%	0.00	0.10	1.8%	63.8%
3	0.01	0.02	0.01	0.00	0.00	0.08	42.1%	5.6%	8.4%	7.9%	1.1%	1.1%	42.1%	0.01	0.12	2.8%	69.1%
4	0.01	0.04	0.02	0.00	0.00	0.06	41.8%	6.5%	26.8%	10.5%	1.3%	2.6%	41.8%	0.01	0.10	4.6%	65.4%
5	0.01	0.03	0.02	0.00	0.01	0.05	31.1%	8.5%	18.9%	11.0%	1.2%	3.0%	31.1%	0.01	0.09	4.9%	56.7%
6	0.02	0.09	0.04	0.00	0.01	0.13	39.3%	6.6%	27.5%	11.8%	1.2%	2.1%	39.3%	0.01	0.22	3.6%	65.3%
7	0.03	0.06	0.03	0.00	0.01	0.16	40.0%	7.6%	15.1%	6.8%	0.5%	1.7%	40.0%	0.01	0.28	2.9%	67.8%
8	0.03	0.04	0.03	0.00	0.01	0.15	39.5%	8.3%	11.7%	7.5%	0.3%	2.9%	39.5%	0.02	0.24	4.5%	64.0%
9	0.02	0.04	0.02	0.00	0.01	0.14	38.7%	4.9%	10.9%	5.7%	0.9%	2.0%	38.7%	0.01	0.22	3.4%	64.2%
10	0.02	0.03	0.03	0.00	0.01	0.18	44.5%	4.4%	7.3%	7.3%	0.7%	1.2%	44.5%	0.01	0.29	2.4%	71.4%
11	0.03	0.04	0.03	0.00	0.01	0.15	39.5%	8.3%	11.7%	7.5%	0.3%	2.9%	39.5%	0.02	0.24	4.5%	64.0%
12	0.03	0.04	0.02	0.00	0.01	0.15	40.3%	7.4%	11.3%	4.7%	0.5%	2.6%	40.3%	0.02	0.25	4.2%	64.7%
13	0.02	0.16	0.09	0.01	0.02	0.37	44.7%	2.9%	19.7%	11.4%	0.6%	2.1%	44.7%	0.04	0.59	4.2%	71.6%
14	0.07	0.15	0.09	0.01	0.02	0.40	41.1%	7.3%	15.2%	8.9%	0.7%	1.5%	41.1%	0.03	0.67	2.7%	68.4%
15	0.11	0.16	0.05	0.01	0.02	0.40	44.8%	12.7%	18.4%	5.4%	0.9%	2.7%	44.8%	0.04	0.61	3.9%	68.8%
16	0.08	0.14	0.08	0.00	0.03	0.26	35.3%	10.4%	19.4%	11.3%	0.4%	3.7%	35.3%	0.04	0.45	5.4%	62.5%
17	0.07	0.08	0.03	0.01	0.02	0.47	44.9%	6.3%	7.4%	2.7%	0.8%	1.7%	44.9%	0.03	0.73	2.9%	70.0%
18	0.04	0.12	0.07	0.01	0.02	0.34	42.3%	5.0%	15.1%	8.1%	0.6%	1.9%	42.3%	0.03	0.57	3.8%	71.0%
19	0.14	0.19	0.10	0.01	0.02	0.40	39.7%	14.4%	18.9%	10.4%	0.5%	2.1%	39.7%	0.03	0.65	2.8%	65.7%
20	0.12	0.11	0.05	0.01	0.03	0.44	43.6%	11.7%	11.2%	4.8%	0.5%	2.7%	43.6%	0.04	0.67	3.7%	66.8%
21	0.11	0.10	0.05	0.00	0.02	0.50	45.2%	10.0%	9.2%	4.4%	0.4%	1.6%	45.2%	0.03	0.77	2.6%	69.5%
22	0.00	0.03	0.01	0.00	0.00	0.13	45.1%	0.7%	11.8%	3.5%	0.7%	1.0%	45.1%	0.01	0.21	1.7%	72.6%
23	0.00	0.03	0.01	0.00	0.00	0.14	49.0%	0.7%	10.3%	3.4%	0.7%	0.3%	49.0%	0.00	0.22	0.7%	75.2%
24	0.00	0.03	0.01	0.00	0.00	0.12	46.1%	0.8%	12.0%	5.4%	0.8%	0.4%	46.1%	0.00	0.19	0.8%	72.5%
25	0.01	0.02	0.02	0.00	0.00	0.15	49.2%	1.7%	5.8%	7.1%	0.7%	0.3%	49.2%	0.00	0.22	0.7%	73.9%
26	0.00	0.02	0.02	0.00	0.00	0.13	47.1%	1.1%	7.3%	5.5%	0.7%	0.7%	47.1%	0.00	0.20	0.7%	71.2%
27	0.01	0.07	0.04	0.00	0.00	0.23	48.3%	1.0%	14.2%	9.2%	0.6%	0.8%	48.3%	0.01	0.36	1.3%	74.0%
28	0.01	0.07	0.04	0.00	0.01	0.32	56.6%	1.1%	12.7%	6.3%	0.2%	0.9%	56.6%	0.01	0.45	1.4%	80.1%
29	0.01	0.10	0.01	0.00	0.01	0.44	51.2%	0.7%	11.3%	0.9%	0.5%	0.6%	51.2%	0.01	0.67	0.9%	78.1%
30	0.01	0.10	0.00	0.01	0.01	0.39	49.9%	0.8%	12.8%	0.4%	0.9%	0.8%	49.9%	0.01	0.60	1.4%	76.4%
31	0.01	0.08	0.03	0.00	0.01	0.35	56.1%	1.0%	12.6%	5.3%	0.2%	0.8%	56.1%	0.01	0.49	1.3%	79.7%
32	0.01	0.09	0.02	0.00	0.00	0.42	52.2%	0.7%	11.3%	2.0%	0.2%	0.5%	52.2%	0.01	0.63	0.7%	78.4%
33	0.01	0.10	0.00	0.01	0.01	0.42	50.2%	0.7%	12.1%	0.5%	0.7%	0.7%	50.2%	0.01	0.64	1.2%	77.1%
34	0.02	0.18	0.23	0.00	0.02	0.67	46.5%	1.6%	12.4%	15.9%	0.2%	1.1%	46.5%	0.03	1.03	1.9%	71.3%
35	0.04	0.26	0.14	0.00	0.01	0.97	55.6%	2.1%	14.7%	7.8%	0.2%	0.3%	55.6%	0.01	1.39	0.6%	80.0%
36	0.04	0.25	0.02	0.00	0.01	1.21	66.2%	2.0%	13.9%	1.1%	0.1%	0.5%	66.2%	0.01	1.54	0.8%	84.1%
37	0.03	0.30	0.02	0.00	0.02	1.25	64.9%	1.7%	15.7%	0.9%	0.1%	0.9%	64.9%	0.03	1.61	1.4%	83.5%
38	0.02	0.28	0.02	0.01	0.02	1.04	55.8%	1.3%	14.8%	0.9%	0.7%	1.1%	55.8%	0.04	1.44	1.9%	77.5%
39	0.03	0.22	0.20	0.00	0.01	0.83	50.4%	1.8%	13.5%	12.2%	0.2%	0.7%	50.4%	0.02	1.23	1.2%	74.7%
40	0.04	0.29	0.08	0.00	0.01	1.16	61.8%	2.2%	15.2%	4.0%	0.2%	0.5%	61.8%	0.01	1.57	0.7%	83.5%
41	0.04	0.28	0.02	0.00	0.02	1.22	65.8%	2.0%	14.9%	1.0%	0.1%	0.9%	65.8%	0.02	1.56	1.2%	83.7%
42	0.03	0.31	0.02	0.00	0.02	1.22	62.6%	1.4%	16.1%	1.2%	0.2%	0.9%	62.6%	0.03	1.59	1.6%	82.1%
43	0.02	0.09	0.04	0.01	0.02	0.21	43.6%	3.9%	19.1%	7.6%	1.0%	3.1%	43.6%	0.02	0.35	4.7%	70.9%
44	0.01	0.05	0.03	0.01	0.00	0.23	41.7%	2.0%	9.2%	6.1%	1.1%	0.7%	41.7%	0.01	0.39	1.3%	70.0%
45	0.02	0.05	0.05	0.01	0.01	0.23	44.9%	3.2%	10.3%	9.5%	1.2%	1.2%	44.9%	0.01	0.36	1.8%	70.8%
46	0.02	0.06	0.06	0.01	0.01	0.21	40.3%	3.6%	12.1%	10.7%	1.5%	1.3%	40.3%	0.01	0.37	2.3%	68.7%
47	0.02	0.07	0.05	0.01	0.01	0.20	43.9%	4.2%	15.3%	11.5%	1.6%	2.2%	43.9%	0.02	0.31	3.3%	68.7%
48	0.04	0.17	0.11	0.01	0.02	0.42	47.6%	4.6%	19.4%	12.7%	1.6%	1.7%	47.6%	0.02	0.62	2.6%	69.9%
49	0.04	0.16	0.10	0.00	0.01	0.52	50.0%	3.8%	15.0%	9.4%	0.4%	1.2%	50.0%	0.02	0.79	1.8%	75.9%
50	0.04	0.22	0.06	0.01	0.03	0.60	47.7%	3.5%	17.7%	4.4%	0.6%	2.3%	47.7%	0.05	0.94	3.6%	74.8%
51	0.02	0.18	0.03	0.02	0.02	0.59	44.7%	1.8%	13.7%	2.1%	1.3%	1.7%	44.7%	0.04	0.93	2.7%	70.7%
52	0.04	0.13	0.10	0.01	0.01	0.61	50.2%	3.0%	10.3%	7.8%	0.4%	0.9%	50.2%	0.02	0.92	1.8%	75.1%
53	0.04	0.20	0.07	0.00	0.03	0.62	48.2%	3.4%	15.7%	5.8%	0.3%	2.1%	48.2%	0.04	0.95	3.2%	74.6%
54	0.04	0.21	0.03	0.01	0.03	0.57	44.7%	3.0%	16.3%	2.1%	1.0%	2.0%	44.7%	0.04	0.91	3.3%	71.0%
55	0.08	0.42	0.54	0.01	0.04	1.53	45.3%	2.4%	12.4%	16.0%	0.3%	1.2%	45.3%	0.07	2.40	2.1%	70.9%
56	0.15	0.51	0.24	0.02	0.02	1.71	51.4%	4.6%	15.3%	7.2%	0.5%	0.7%	51.4%	0.04	2.53	1.2%	76.1%
57	0.15	0.48	0.07	0.01	0.05	1.97	61.2%	4.8%	14.7%	2.0%	0.3%	1.5%	61.2%	0.07	2.60	2.0%	80.7%
58	0.10	0.52	0.15	0.01	0.08	1.63	55.1%	3.2%	17.7%	5.1%	0.2%	2.8%	55.1%	0.11	2.27	3.7%	76.6%
59	0.11	0.46	0.07	0.03	0.06	1.78	50.8%	3.1%	13.0%	2.0%	0.7%	1.8%	50.8%	0.09	2.58	2.5%	73.5%
60	0.10	0.45	0.37	0.01	0.03	1.62	48.9%	3.0%	13.7%	11.2%	0.4%	0.8%	48.9%	0.05	2.43	1.6%	73.2%
61	0.24	0.57	0.20	0.02	0.04	1.84	54.5%	7.0%	17.0%	6.1%	0.4%	1.2%	54.5%	0.06	2.60	1.7%	77.2%
62	0.15	0.46	0.10	0.01	0.07	1.93	59.7%	4.5%	14.3%	3.0%	0.3%	2.0%	59.7%	0.09	2.55	2.7%	78.9%
63	0.16	0.54	0.12	0.01	0.06	1.87	54.9%	4.6%	15.9%	3.6%	0.3%	1.8%	54.9%	0.09	2.60	2.5%	76.6%

- L–patch High CH

						4cm2 PD(mW/cm2)							max ratio out of all beams at 2mm evaluation distance					
													15.4%	56.1%	23.7%	2.7%	9.0%	100.0%
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	per Beam Back-off (dB)	ratio (Right 2mm)/(worst-surface 2mm)	ratio (Left 2mm)/(worst-surface 2mm)	ratio (Top 2mm)/(worst-surface 2mm)	ratio (Bottom 2mm)/(worst-surface 2mm)	ratio (Fomt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)
1			0		1	0.01	0.08	0.02	0.00	0.01	**0.21**		6.3%	38.5%	7.3%	1.5%	6.3%	100.0%
2			1		1	0.01	0.05	0.02	0.00	0.01	**0.17**		5.4%	27.5%	13.8%	1.8%	3.0%	100.0%
3			2		1	0.01	0.04	0.03	0.01	0.01	**0.19**		7.0%	20.0%	17.3%	2.7%	6.5%	100.0%
4			3		1	0.01	0.08	0.04	0.00	0.01	**0.15**		5.3%	55.3%	23.7%	1.3%	6.6%	100.0%
5			4		1	0.01	0.10	0.03	0.00	0.01	**0.20**		6.7%	48.7%	12.8%	1.5%	6.2%	100.0%
6			5		2	0.02	0.20	0.07	0.00	0.02	**0.37**		4.1%	55.1%	17.8%	1.1%	6.5%	100.0%
7			6		2	0.03	0.14	0.05	0.00	0.03	**0.40**		7.9%	33.9%	13.4%	0.7%	7.2%	100.0%
8			7		2	0.03	0.14	0.04	0.00	0.02	**0.37**		8.3%	37.2%	9.6%	0.5%	4.8%	100.0%
9			8		2	0.03	0.15	0.03	0.01	0.02	**0.40**		6.3%	38.2%	6.8%	1.3%	5.3%	100.0%
10			9		2	0.03	0.07	0.06	0.00	0.02	**0.39**		8.3%	19.1%	15.0%	0.5%	5.7%	100.0%
11			10		2	0.03	0.14	0.04	0.00	0.02	**0.37**		8.3%	37.2%	9.6%	0.5%	4.8%	100.0%
12			11		2	0.03	0.16	0.03	0.00	0.02	**0.41**		8.3%	39.7%	6.1%	0.7%	5.6%	100.0%
13			12		5	0.03	0.34	0.13	0.01	0.07	**0.81**		3.9%	42.4%	16.4%	1.0%	9.0%	100.0%
14			13		5	0.09	0.24	0.16	0.01	0.06	**0.92**		9.3%	26.5%	16.8%	1.0%	6.0%	100.0%
15			14		5	0.12	0.39	0.07	0.01	0.05	**0.94**		12.5%	42.1%	7.1%	1.1%	4.8%	100.0%
16			15		5	0.09	0.43	0.11	0.01	0.05	**0.76**		11.5%	56.1%	14.9%	1.2%	7.1%	100.0%
17			16		5	0.10	0.24	0.06	0.01	0.05	**1.15**		8.8%	20.7%	5.2%	1.0%	4.1%	100.0%
18			17		5	0.05	0.22	0.14	0.01	0.07	**0.78**		6.0%	27.8%	17.4%	1.0%	8.7%	100.0%
19			18		5	0.15	0.37	0.15	0.01	0.04	**0.95**		15.4%	38.8%	15.2%	0.7%	4.3%	100.0%
20			19		5	0.13	0.39	0.09	0.01	0.05	**1.05**		12.5%	37.1%	8.1%	0.7%	4.4%	100.0%
21			20		5	0.14	0.27	0.08	0.01	0.05	**1.11**		12.8%	24.6%	6.7%	0.4%	4.0%	100.0%
22			256		1	0.00	0.11	0.01	0.00	0.01	**0.29**		1.4%	39.2%	4.2%	1.0%	2.4%	100.0%
23			257		1	0.00	0.11	0.02	0.00	0.00	**0.32**		0.9%	34.5%	5.3%	1.2%	1.2%	100.0%
24			258		1	0.00	0.12	0.03	0.00	0.00	**0.29**		1.4%	41.7%	9.0%	1.0%	1.4%	100.0%
25			259		1	0.01	0.07	0.04	0.00	0.00	**0.32**		1.9%	22.1%	12.0%	0.9%	1.3%	100.0%
26			260		1	0.01	0.07	0.02	0.00	0.00	**0.27**		1.8%	23.7%	8.4%	1.1%	1.1%	100.0%
27			261		2	0.01	0.24	0.07	0.01	0.01	**0.55**		1.3%	43.6%	13.1%	1.1%	1.8%	100.0%
28			262		2	0.01	0.25	0.05	0.00	0.02	**0.63**		1.0%	39.4%	7.8%	0.3%	2.4%	100.0%
29			263		2	0.01	0.33	0.02	0.00	0.01	**0.90**		1.0%	36.4%	1.7%	0.4%	1.5%	100.0%
30			264		2	0.01	0.35	0.01	0.01	0.02	**0.84**		0.8%	41.3%	0.6%	1.1%	2.2%	100.0%
31			265		2	0.01	0.26	0.05	0.00	0.01	**0.68**		0.9%	38.6%	6.6%	0.1%	2.1%	100.0%
32	M	Patch	266		2	0.01	0.30	0.02	0.00	0.01	**0.85**		0.9%	35.4%	2.7%	0.2%	1.1%	100.0%
33			267		2	0.01	0.35	0.01	0.01	0.02	**0.88**		0.9%	39.2%	0.9%	0.8%	1.8%	100.0%
34			268		5	0.04	0.60	0.36	0.00	0.04	**1.55**		2.6%	38.4%	23.0%	0.2%	2.8%	100.0%
35			269		5	0.05	0.74	0.24	0.01	0.02	**1.90**		2.6%	39.0%	12.5%	0.3%	0.8%	100.0%
36			270		5	0.06	0.66	0.02	0.00	0.02	**1.93**		2.9%	34.1%	1.1%	0.1%	1.0%	100.0%
37			271		5	0.05	0.81	0.03	0.00	0.04	**2.03**		2.2%	39.9%	1.6%	0.1%	2.0%	100.0%
38			272		5	0.03	0.84	0.02	0.02	0.06	**1.98**		1.6%	42.4%	1.1%	0.8%	2.9%	100.0%
39			273		5	0.05	0.68	0.32	0.00	0.03	**1.76**		2.7%	38.8%	18.2%	0.2%	1.8%	100.0%
40			274		5	0.05	0.77	0.15	0.01	0.02	**2.05**		2.6%	37.8%	7.5%	0.2%	0.8%	100.0%
41			275		5	0.05	0.73	0.02	0.00	0.03	**1.94**		2.7%	37.7%	1.1%	0.2%	1.6%	100.0%
42			276		5	0.04	0.87	0.03	0.00	0.05	**2.07**		1.9%	42.0%	1.6%	0.2%	2.4%	100.0%
43			0	256	2	0.02	0.22	0.04	0.01	0.03	**0.55**		4.2%	40.4%	8.0%	1.5%	5.3%	100.0%
44			1	257	2	0.02	0.20	0.05	0.01	0.02	**0.58**		2.6%	35.1%	8.4%	1.5%	2.6%	100.0%
45			2	258	2	0.03	0.20	0.08	0.01	0.02	**0.53**		5.0%	37.9%	15.8%	2.7%	3.0%	100.0%
46			3	259	2	0.02	0.17	0.11	0.01	0.02	**0.53**		3.7%	32.0%	20.8%	1.5%	3.6%	100.0%
47			4	260	2	0.02	0.22	0.07	0.01	0.02	**0.52**		3.8%	42.0%	14.2%	1.9%	3.6%	100.0%
48			5	261	4	0.04	0.45	0.16	0.02	0.05	**0.97**		3.9%	46.4%	16.4%	1.8%	5.2%	100.0%
49			6	262	4	0.04	0.43	0.15	0.01	0.05	**1.08**		3.9%	39.3%	13.6%	0.6%	4.2%	100.0%
50			7	263	4	0.05	0.65	0.07	0.01	0.05	**1.37**		3.4%	47.2%	4.9%	0.6%	3.9%	100.0%
51			8	264	4	0.04	0.65	0.04	0.02	0.06	**1.33**		3.1%	48.9%	3.3%	1.6%	4.4%	100.0%
52			9	265	4	0.05	0.42	0.14	0.01	0.05	**1.26**		4.0%	33.0%	11.1%	0.4%	3.8%	100.0%
53			10	266	4	0.04	0.59	0.09	0.01	0.05	**1.38**		3.2%	42.7%	6.3%	0.4%	3.5%	100.0%
54			11	267	4	0.05	0.65	0.05	0.01	0.06	**1.31**		4.0%	49.8%	3.5%	0.9%	4.7%	100.0%
55			12	268	10	0.11	1.18	0.71	0.02	0.15	**3.32**		3.2%	35.5%	21.2%	0.5%	4.5%	100.0%
56			13	269	10	0.18	1.20	0.50	0.02	0.09	**3.34**		5.3%	36.0%	15.1%	0.6%	2.8%	100.0%
57			14	270	10	0.15	1.23	0.11	0.02	0.08	**3.38**		4.6%	36.2%	3.3%	0.5%	2.5%	100.0%
58			15	271	10	0.11	1.39	0.22	0.02	0.13	**2.96**		3.6%	47.0%	7.3%	0.5%	4.3%	100.0%
59			16	272	10	0.17	1.24	0.12	0.05	0.10	**3.50**		4.8%	35.4%	3.5%	1.3%	3.0%	100.0%
60			17	273	10	0.12	1.15	0.64	0.02	0.13	**3.25**		3.6%	35.2%	19.7%	0.6%	4.0%	100.0%
61			18	274	10	0.24	1.30	0.29	0.02	0.07	**3.44**		7.0%	37.8%	8.5%	0.7%	2.2%	100.0%
62			19	275	10	0.17	1.26	0.14	0.02	0.11	**3.29**		5.2%	38.3%	4.1%	0.5%	3.3%	100.0%
63			20	276	10	0.19	1.20	0.18	0.01	0.11	**3.28**		5.9%	36.5%	5.5%	0.3%	3.3%	100.0%

	4cm2 PD(mW/cm2) at 10mm evaluation distance						max ratio out of all beams at 10mm evaluation distance							4cm2 PD(mW/cm2) at 5mm evaluation distance		max ratio out of all beams at 5mm evaluation distance	
							65.2%	13.7%	27.6%	13.8%	2.2%	3.4%	65.2%			4.6%	83.8%
No.	S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)	ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(worst-surface 2mm)	ratio (Left 10mm)/(worst-surface 2mm)	ratio (Top 10mm)/(worst-surface 2mm)	ratio (Bottom 10mm)/(worst-surface 2mm)	ratio (Front 10mm)/(worst-surface 2mm)	ratio (Rear 10mm)/(worst-surface 2mm)	S1(Front)	S2(Rear)	ratio (Front 5mm)/(worst-surface 2mm)	ratio (Rear 5mm)/(worst-surface 2mm)
1	0.01	0.04	0.01	0.00	0.01	**0.08**	39.5%	4.9%	17.1%	5.4%	1.0%	3.4%	39.5%	0.01	0.14	4.4%	65.9%
2	0.01	0.01	0.01	0.00	0.00	**0.06**	37.7%	4.2%	7.8%	8.4%	1.2%	1.2%	37.7%	0.00	0.11	1.2%	64.7%
3	0.01	0.01	0.02	0.00	0.00	**0.08**	45.4%	6.5%	7.6%	9.7%	2.2%	1.6%	45.4%	0.01	0.13	3.2%	69.7%
4	0.01	0.04	0.02	0.00	0.01	**0.06**	38.8%	3.9%	24.3%	13.8%	1.3%	3.3%	38.8%	0.01	0.10	4.6%	62.5%
5	0.01	0.04	0.02	0.00	0.01	**0.07**	35.4%	5.6%	22.1%	8.7%	1.0%	3.1%	35.4%	0.01	0.12	4.1%	63.1%
6	0.01	0.10	0.03	0.00	0.01	**0.16**	43.5%	3.5%	27.6%	8.9%	0.8%	3.0%	43.5%	0.02	0.25	4.6%	67.3%
7	0.03	0.05	0.04	0.00	0.01	**0.15**	37.6%	6.4%	13.4%	8.9%	0.5%	2.5%	37.6%	0.02	0.27	4.2%	65.6%
8	0.03	0.06	0.02	0.00	0.01	**0.15**	40.4%	6.7%	16.0%	5.9%	0.3%	2.9%	40.4%	0.02	0.25	4.0%	66.0%
9	0.02	0.05	0.02	0.00	0.01	**0.16**	40.5%	5.0%	12.8%	5.0%	1.0%	2.8%	40.5%	0.01	0.26	3.5%	65.1%
10	0.03	0.03	0.03	0.00	0.01	**0.17**	45.0%	6.7%	7.2%	7.8%	0.5%	1.3%	45.0%	0.01	0.28	2.3%	71.8%
11	0.03	0.06	0.02	0.00	0.01	**0.15**	40.4%	6.7%	16.0%	5.9%	0.3%	2.9%	40.4%	0.02	0.25	4.0%	66.0%
12	0.03	0.06	0.02	0.00	0.01	**0.17**	40.1%	6.6%	15.3%	4.1%	0.5%	3.2%	40.1%	0.02	0.27	4.1%	66.4%
13	0.03	0.15	0.09	0.01	0.02	**0.36**	44.1%	3.3%	18.7%	11.0%	0.7%	2.2%	44.1%	0.04	0.58	4.4%	70.8%
14	0.07	0.14	0.09	0.01	0.02	**0.36**	39.1%	7.9%	14.7%	9.7%	0.8%	2.3%	39.1%	0.03	0.63	3.4%	67.9%
15	0.10	0.17	0.05	0.01	0.03	**0.43**	45.8%	10.3%	17.8%	5.2%	0.9%	3.4%	45.8%	0.04	0.64	4.1%	68.4%
16	0.08	0.17	0.06	0.01	0.02	**0.29**	37.9%	10.3%	22.7%	8.3%	1.1%	3.0%	37.9%	0.04	0.49	4.6%	64.6%
17	0.08	0.10	0.04	0.01	0.02	**0.56**	48.7%	6.6%	8.6%	3.1%	0.7%	2.1%	48.7%	0.04	0.82	3.1%	71.9%
18	0.04	0.11	0.08	0.01	0.02	**0.32**	41.2%	4.7%	14.5%	10.0%	0.9%	2.4%	41.2%	0.04	0.55	4.5%	70.6%
19	0.13	0.18	0.10	0.01	0.02	**0.38**	40.0%	13.7%	18.4%	10.3%	0.6%	2.3%	40.0%	0.03	0.63	3.1%	66.1%
20	0.10	0.18	0.06	0.01	0.03	**0.44**	41.4%	9.9%	16.8%	5.3%	0.5%	2.7%	41.4%	0.04	0.69	3.5%	65.3%
21	0.12	0.12	0.05	0.00	0.02	**0.53**	47.6%	10.8%	11.0%	4.5%	0.3%	2.0%	47.6%	0.03	0.79	2.9%	70.8%
22	0.00	0.03	0.01	0.00	0.00	**0.13**	44.4%	1.0%	11.5%	3.1%	0.7%	1.0%	44.4%	0.01	0.21	1.7%	72.2%
23	0.00	0.03	0.01	0.00	0.00	**0.15**	46.6%	0.6%	9.6%	3.4%	0.9%	0.6%	46.6%	0.00	0.24	0.9%	73.0%
24	0.00	0.04	0.02	0.00	0.00	**0.14**	46.6%	1.0%	12.8%	5.2%	1.0%	0.3%	46.6%	0.00	0.21	1.0%	72.8%
25	0.01	0.02	0.02	0.00	0.00	**0.15**	47.3%	1.6%	7.3%	7.3%	0.9%	0.6%	47.3%	0.00	0.23	0.6%	71.6%
26	0.00	0.02	0.02	0.00	0.00	**0.12**	44.2%	1.5%	8.8%	5.5%	1.1%	0.7%	44.2%	0.00	0.19	0.7%	69.0%
27	0.01	0.08	0.04	0.01	0.01	**0.27**	48.7%	1.1%	14.9%	8.0%	0.9%	0.9%	48.7%	0.01	0.41	1.3%	74.0%
28	0.01	0.08	0.03	0.00	0.01	**0.35**	56.3%	0.8%	12.2%	5.4%	0.2%	1.0%	56.3%	0.01	0.50	1.6%	80.0%
29	0.01	0.10	0.01	0.00	0.01	**0.45**	50.7%	0.8%	10.6%	1.0%	0.3%	0.6%	50.7%	0.01	0.69	0.9%	77.5%
30	0.01	0.10	0.00	0.01	0.01	**0.42**	49.6%	0.7%	12.2%	0.5%	1.0%	0.7%	49.6%	0.01	0.63	1.3%	75.7%
31	0.01	0.08	0.03	0.00	0.01	**0.38**	55.7%	0.7%	12.0%	4.6%	0.1%	0.9%	55.7%	0.01	0.54	1.3%	79.8%
32	0.01	0.09	0.02	0.00	0.00	**0.44**	51.5%	0.7%	10.5%	1.8%	0.1%	0.5%	51.5%	0.01	0.66	0.7%	77.9%
33	0.01	0.10	0.01	0.01	0.01	**0.44**	50.0%	0.8%	11.6%	0.6%	0.7%	0.7%	50.0%	0.01	0.67	1.1%	76.6%
34	0.03	0.22	0.22	0.00	0.02	**0.70**	44.9%	1.7%	14.3%	13.8%	0.1%	1.2%	44.9%	0.03	1.10	1.9%	70.7%
35	0.04	0.31	0.14	0.00	0.01	**1.09**	57.4%	2.1%	16.3%	7.2%	0.2%	0.3%	57.4%	0.01	1.55	0.6%	81.4%
36	0.04	0.28	0.01	0.00	0.01	**1.26**	65.2%	2.1%	14.5%	0.7%	0.1%	0.5%	65.2%	0.02	1.61	0.8%	83.4%
37	0.04	0.33	0.02	0.00	0.02	**1.29**	63.8%	1.7%	16.1%	1.1%	0.0%	0.9%	63.8%	0.03	1.68	1.5%	82.6%
38	0.03	0.29	0.02	0.01	0.02	**1.08**	54.6%	1.3%	14.9%	0.8%	0.6%	1.2%	54.6%	0.04	1.50	2.0%	76.0%
39	0.03	0.27	0.20	0.00	0.01	**0.88**	50.2%	1.8%	15.5%	11.5%	0.2%	0.6%	50.2%	0.02	1.32	1.1%	75.0%
40	0.04	0.34	0.08	0.00	0.01	**1.28**	62.6%	2.1%	16.4%	3.8%	0.2%	0.4%	62.6%	0.01	1.71	0.7%	83.8%
41	0.04	0.30	0.01	0.00	0.02	**1.25**	64.4%	2.1%	15.6%	0.7%	0.1%	0.9%	64.4%	0.02	1.61	1.2%	82.9%
42	0.03	0.34	0.03	0.00	0.02	**1.28**	62.0%	1.5%	16.3%	1.2%	0.1%	1.1%	62.0%	0.04	1.68	1.8%	81.4%
43	0.02	0.09	0.03	0.01	0.01	**0.24**	44.1%	3.3%	15.9%	6.0%	1.3%	2.6%	44.1%	0.02	0.39	3.7%	71.7%
44	0.01	0.06	0.03	0.01	0.01	**0.25**	42.5%	1.9%	9.5%	5.5%	1.4%	0.9%	42.5%	0.01	0.41	1.4%	70.1%
45	0.02	0.06	0.05	0.01	0.01	**0.23**	43.6%	4.4%	11.4%	10.3%	1.9%	1.3%	43.6%	0.01	0.36	2.1%	69.0%
46	0.02	0.07	0.07	0.01	0.01	**0.23**	42.7%	2.8%	12.7%	12.4%	1.3%	1.7%	42.7%	0.01	0.37	2.4%	69.9%
47	0.02	0.08	0.05	0.01	0.01	**0.19**	37.2%	3.6%	15.9%	9.6%	1.3%	1.9%	37.2%	0.01	0.33	2.5%	62.6%
48	0.03	0.19	0.10	0.02	0.02	**0.45**	46.8%	3.1%	19.7%	9.8%	1.5%	2.1%	46.8%	0.03	0.67	3.4%	69.0%
49	0.04	0.15	0.10	0.00	0.02	**0.56**	51.9%	3.3%	14.0%	8.8%	0.4%	1.6%	51.9%	0.03	0.84	2.4%	77.7%
50	0.04	0.24	0.04	0.01	0.03	**0.66**	48.2%	2.7%	17.7%	3.1%	0.5%	2.1%	48.2%	0.04	1.02	3.1%	74.7%
51	0.03	0.20	0.03	0.02	0.03	**0.58**	44.0%	2.3%	14.7%	2.3%	1.4%	2.1%	44.0%	0.04	0.94	2.9%	70.7%
52	0.04	0.12	0.09	0.01	0.01	**0.64**	50.7%	3.4%	9.7%	7.2%	0.4%	1.1%	50.7%	0.02	0.96	1.7%	76.2%
53	0.04	0.23	0.06	0.00	0.03	**0.68**	49.1%	2.5%	16.3%	4.3%	0.3%	1.9%	49.1%	0.04	1.04	2.7%	75.0%
54	0.04	0.24	0.03	0.01	0.03	**0.63**	48.0%	3.0%	18.0%	2.3%	0.9%	2.4%	48.0%	0.05	0.97	3.5%	74.3%
55	0.09	0.45	0.46	0.01	0.05	**1.55**	46.7%	2.6%	13.4%	13.8%	0.4%	1.4%	46.7%	0.07	2.36	2.2%	71.0%
56	0.15	0.54	0.28	0.02	0.03	**1.76**	52.7%	4.6%	16.2%	8.4%	0.5%	0.9%	52.7%	0.04	2.60	1.2%	77.9%
57	0.13	0.51	0.07	0.01	0.06	**2.06**	60.8%	3.8%	15.1%	2.0%	0.4%	1.7%	60.8%	0.07	2.70	2.1%	79.7%
58	0.10	0.59	0.14	0.01	0.07	**1.60**	54.2%	3.2%	19.9%	4.6%	0.4%	2.5%	54.2%	0.10	2.24	3.4%	75.6%
59	0.13	0.42	0.08	0.03	0.05	**1.80**	51.4%	3.6%	12.1%	2.3%	0.9%	1.4%	51.4%	0.07	2.59	2.1%	74.1%
60	0.10	0.50	0.36	0.02	0.04	**1.63**	50.3%	3.0%	15.3%	11.0%	0.5%	1.2%	50.3%	0.07	2.41	2.0%	74.2%
61	0.22	0.58	0.19	0.02	0.04	**1.90**	55.2%	6.4%	16.9%	5.4%	0.5%	1.2%	55.2%	0.06	2.70	1.6%	78.4%
62	0.13	0.55	0.09	0.01	0.07	**1.91**	57.9%	4.0%	16.6%	2.8%	0.4%	2.1%	57.9%	0.09	2.56	2.7%	77.7%
63	0.17	0.53	0.13	0.01	0.06	**1.81**	55.1%	5.0%	16.2%	3.8%	0.2%	1.7%	55.1%	0.08	2.50	2.4%	76.3%