FCC ID: A3LSMS908U

Power Density Simulation Report

Revision A

November 02, 2021

SAMSUNG ELECTRONICS

1. Simulation methodology for Power Density (PD)

1.1 Simulation tool

1.1.1 Tool description

For the simulation approach to calculating power density (PD) evaluation for mobile phone with mmWave antenna modules, ANSYS Electromagnetics suite version 2020.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 2020.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 2020.R2 (HFSS) is used. ANSYS Electromagnetics suite version 2020.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 2020.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 2020.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).

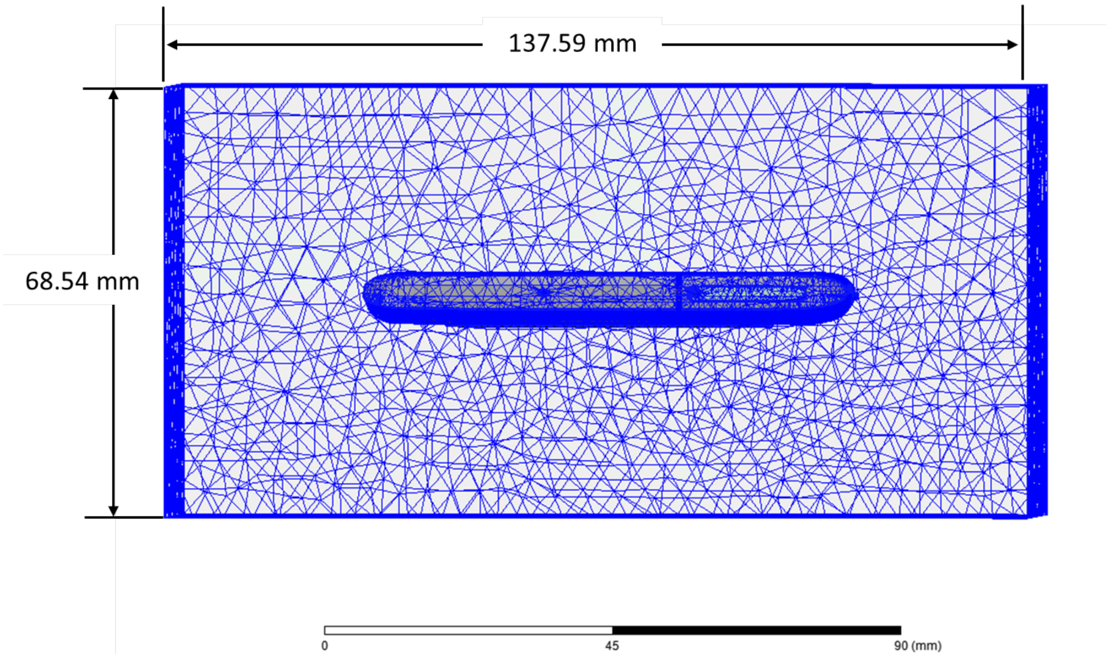


Figure 1 Example of the adaptive mesh technique (Top view)

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 ($\vec{\mathrm{E}}$) and a magnetic field ($\vec{\mathrm{H}}$) are needed. The actual consumption power can be expressed as the real term of the Poynting vector ($\vec{\mathrm{S}}$) from the cross product of $\vec{\mathrm{E}}$ and complex conjugation of $\vec{\mathrm{H}}$ as shown below:

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

$\langle\vec{\mathrm{S}}\rangle$ 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 2020.R2 (HFSS).

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

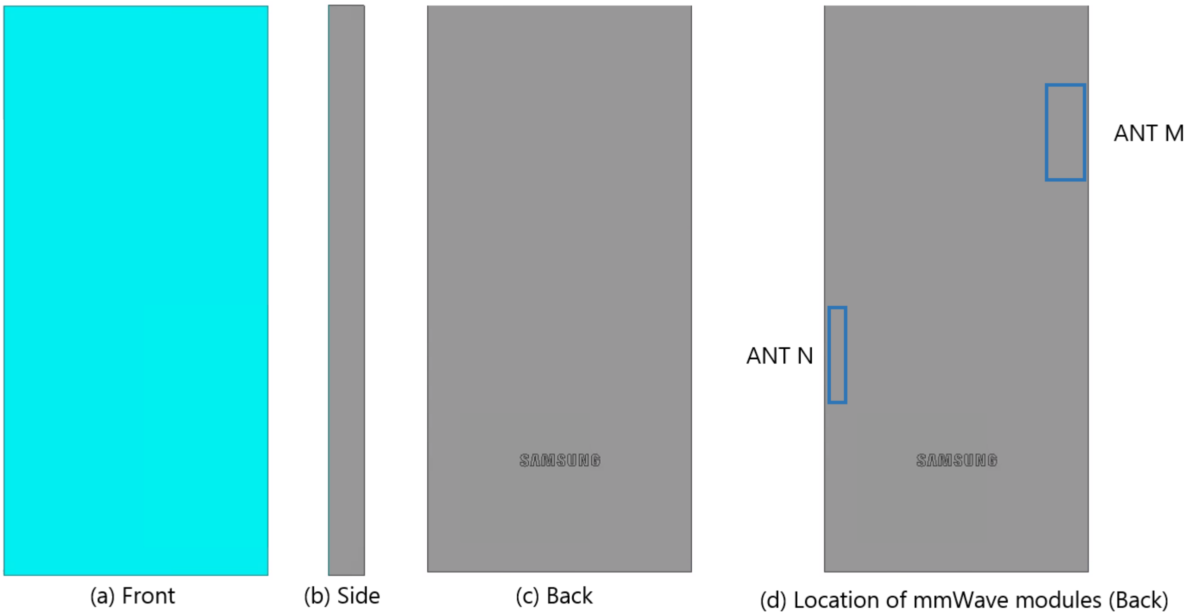
$$\mathrm{PD}_{av} = \frac{1}{A}\int_{A} \langle\vec{\mathrm{S}}\rangle \cdot ds = \frac{1}{2A_{av}}\iint_{A_{av}} \|Re\{ExH^{*}\}\| \, dA$$

, where the spatial-averaged power density (PD_{av}) is total power density value considering on x, y and z components of point power density $\langle\vec{\mathrm{S}}\rangle$ 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 two mmWave antenna modules. 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 modules called as Ant M and Ant N. The modeling contains the entire EUT to enable a Smart transmit GEN2, as well. Ant M is placed on the left side and antennas are facing the back side, and Ant N is placed on the right side and antennas are facing the right side of the device.



(a) Front (b) Side (c) Back (d) Location of mmWave modules (Back)

Figure 2 Simulation model which is mounted two mmWave antenna modules

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 M	O	O	O	O	O	O
Ant N	O	O	O	O	O	O

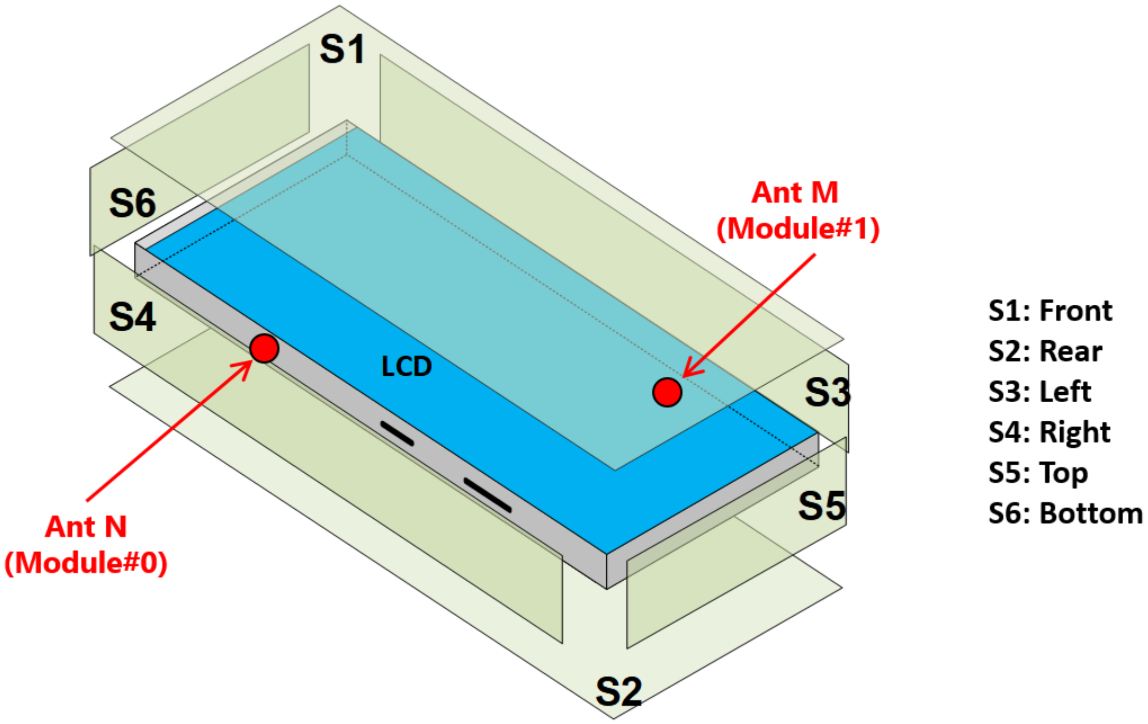


Figure 3. PD evaluation planes

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 2020.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 MG 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 M and ANT N for source excitation are the same. The antenna port of ANT M and N 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.

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

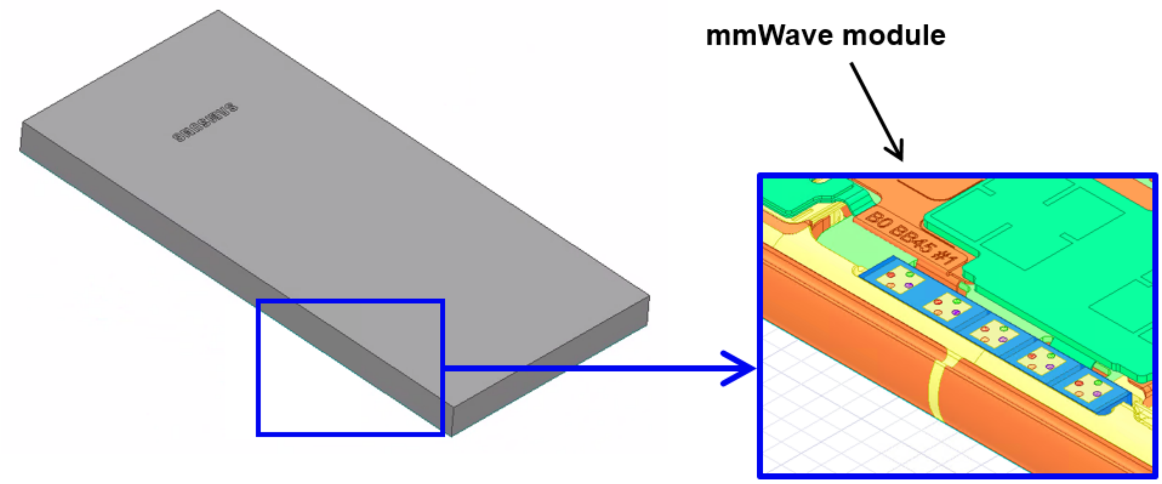
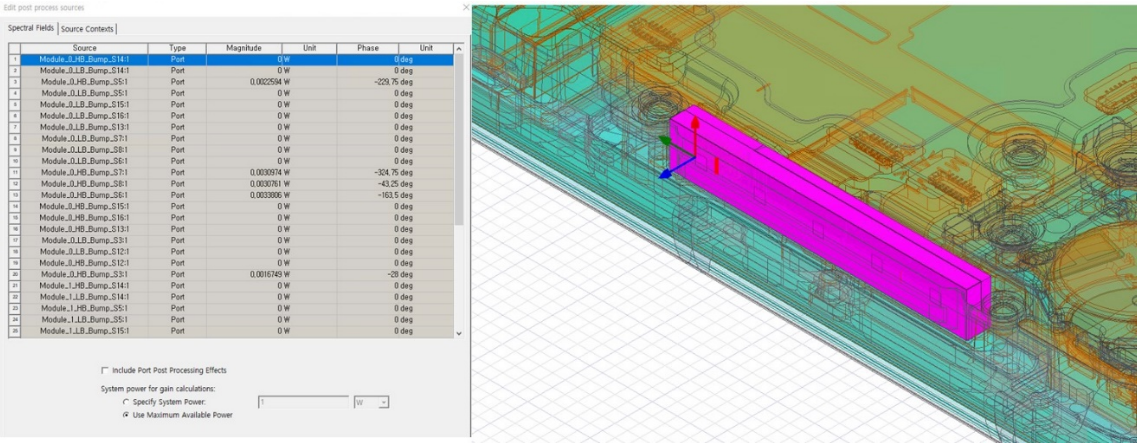


Figure 4. mmWave module (ANT M)

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



	Source	Type	Magnitude	Unit	Phase	Unit
1	Module_0_HB_Bump_S14:1	Port	0	W	0	deg
2	Module_0_LB_Bump_S14:1	Port	0	W	0	deg
3	Module_0_HB_Bump_S5:1	Port	0,0022594	W	-229,75	deg
4	Module_0_LB_Bump_S5:1	Port	0	W	0	deg
5	Module_0_LB_Bump_S15:1	Port	0	W	0	deg
6	Module_0_LB_Bump_S16:1	Port	0	W	0	deg
7	Module_0_LB_Bump_S13:1	Port	0	W	0	deg
8	Module_0_LB_Bump_S7:1	Port	0	W	0	deg
9	Module_0_LB_Bump_S8:1	Port	0	W	0	deg
10	Module_0_LB_Bump_S6:1	Port	0	W	0	deg
11	Module_0_HB_Bump_S7:1	Port	0,0030974	W	-324,75	deg
12	Module_0_HB_Bump_S8:1	Port	0,0030761	W	-43,25	deg
13	Module_0_HB_Bump_S6:1	Port	0,0033806	W	-163,5	deg
14	Module_0_HB_Bump_S15:1	Port	0	W	0	deg
15	Module_0_HB_Bump_S16:1	Port	0	W	0	deg
16	Module_0_HB_Bump_S13:1	Port	0	W	0	deg
17	Module_0_LB_Bump_S3:1	Port	0	W	0	deg
18	Module_0_LB_Bump_S12:1	Port	0	W	0	deg
19	Module_0_HB_Bump_S12:1	Port	0	W	0	deg
20	Module_0_HB_Bump_S3:1	Port	0,0016749	W	-28	deg
21	Module_1_HB_Bump_S14:1	Port	0	W	0	deg
22	Module_1_LB_Bump_S14:1	Port	0	W	0	deg
23	Module_1_HB_Bump_S5:1	Port	0	W	0	deg
24	Module_1_LB_Bump_S5:1	Port	0	W	0	deg
25	Module_1_LB_Bump_S15:1	Port	0	W	0	deg

☐ Include Port Post Processing Effects

System power for gain calculations:
○ Specify System Power: 1 W
● Use Maximum Available Power

Figure 5. An example of port excitation (ANT N)

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.

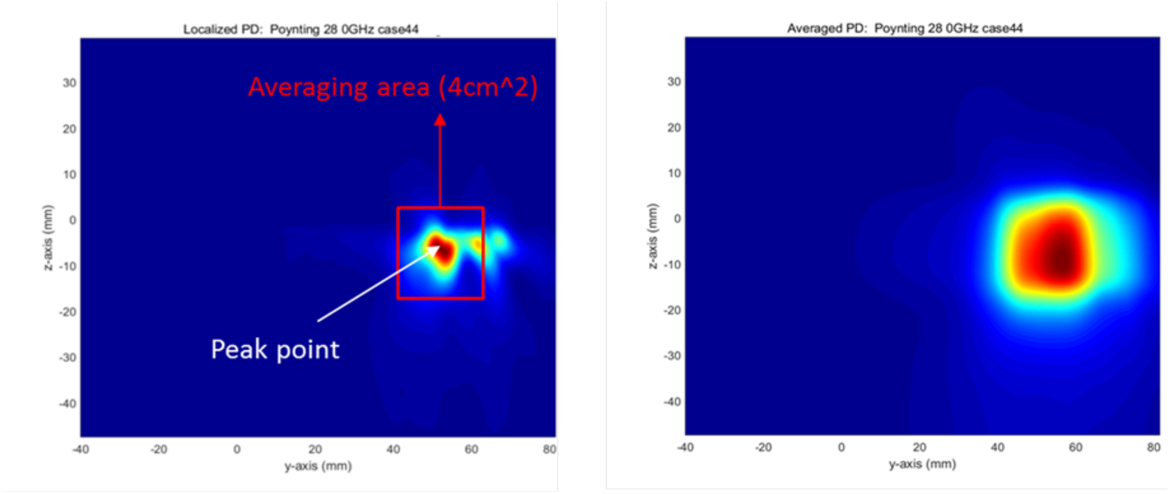
1.2.5 Condition of simulation completion

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 $\text{sim.power}_{\text{limit}}$

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 $4\ \text{cm}^2$ at 2.5 mm intervals of the point power density result. Figure 6 shows examples of the distribution plot of point power density and the averaged power density.



(a) Point power density (b) Averaged power density

Figure 6. Power density distribution (Example)

For the Smart transmit GEN2, the "Qualcomm MG script" were used to extract E- and H-fields from the validated simulation and to assess the mutual coupling between all the mmWave antenna modules and all the beams in the codebook to determine the backoff value for each mmWave module. Note the assessment and backoff value derivation are automated with "Qualcomm MG script". Once the script is done with assessment, it will provide the $\text{sim.power}_{\text{limit}}$ (backoff is already included) for all the beams for all three channels for the specified PD_design_target. This mode take the minimum $\text{sim.power}_{\text{limit}}$ out of all three channels (low, mid and high) and use the resulted $\text{sim.power}_{\text{limit}}$.

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 GEN2, the PD distributions printing out from the "Qualcomm MG script" are added.

Based on comparison of power density distributions, the power densities of simulated, measured and the “Qualcomm MG Script” have a good correlation. The discrepancy in amplitude between the “Qualcomm MG 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.

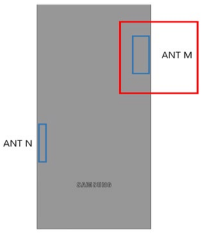
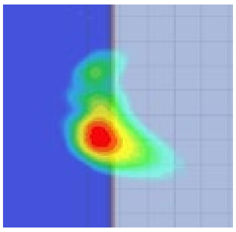
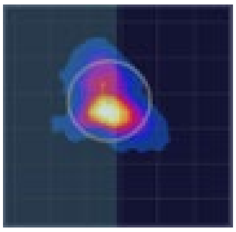
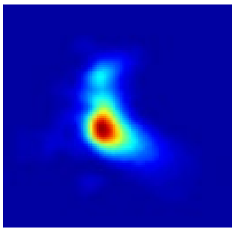
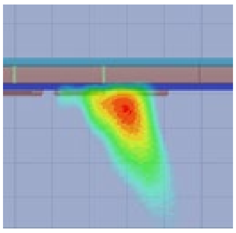
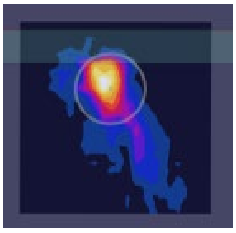
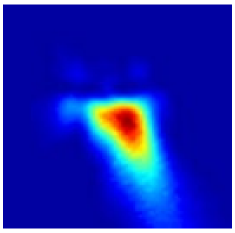
The input powers per each active port are listed below for both Simulation and Measurement validation and power density characterization. For Simulation, these values were entered directly into HFSS model. For measurement, FTM S/W was used to input these values for each active port also.

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

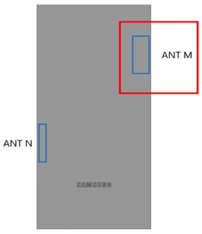
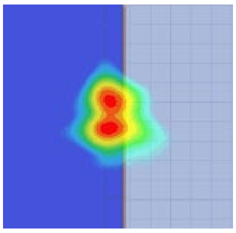
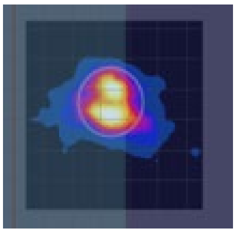
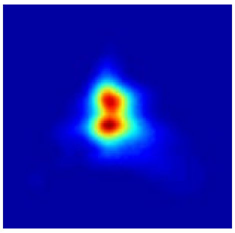
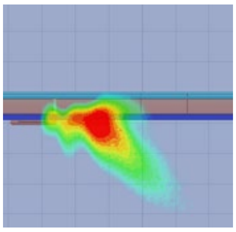
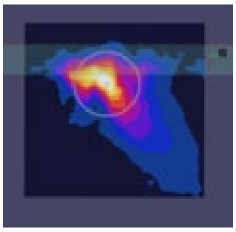
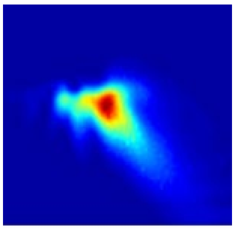
* The below simulation and measurement result were performed at 2mm evaluation distance and 28GHz / 38.5GHz / 24.8 GHz. The *input.power.limit* was determined based on below results.

Band	Channel	Module	Type(P or D)	Side	Beam ID	PLS (10 dBm)	Sim. PD (mW/cm2)	Meas. PD (mW/cm2)
n261	**Mid Ch. 2077891 (27923.5 MHz)**	M	Patch	Rear	37	60	1.720	0.956
				Left	27		1.289	0.540
				Rear	165		2.263	1.050
				Left	156		1.589	0.632
		N	Patch	Rear	40		1.036	0.432
				Right	29		1.669	0.901
				Rear	161		0.580	0.322
				Right			0.595	0.260
n260	**Mid Ch. 2253331 (38449.9 MHz)**	M	Patch	Rear	28	60	1.185	0.382
				Rear	155		1.036	0.476
				Left	156		0.843	0.441
		N	Patch	Rear	40		0.687	0.308
				Right	31		1.331	0.753
				Rear	167		0.608	0.230
				Right	166		0.934	0.426
				Front			0.640	0.291
n258	**Mid Ch. 2025833 (24800.04 MHz)**	M	Patch	Rear	37	60	1.528	0.758
				Left	28		0.936	0.320
				Rear	162		2.228	0.990
				Left			1.480	0.617
		N	Patch	Rear	32		0.781	0.387
				Right	40		1.668	0.763
				Rear	157		0.747	0.590
				Right	167		0.546	0.366

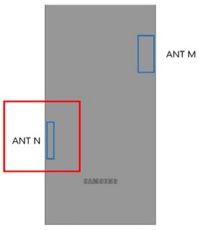
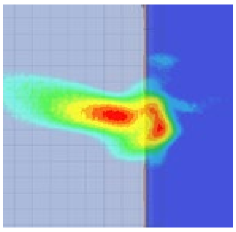
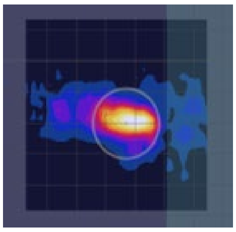
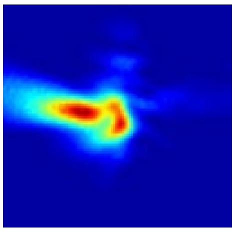
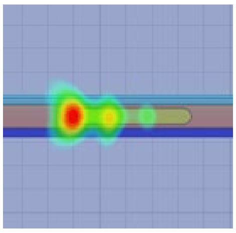
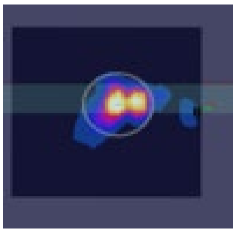
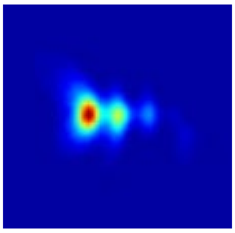
- Table 2-1, n261 ANT M-Patch: Mid Channel, Beam ID 37 for Rear and 27 for Left surfaces

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm MG Script
37	S2 (Rear)				
27	S3 (Left)				

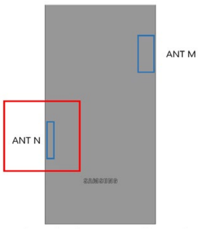
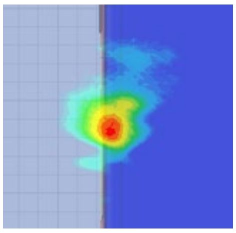
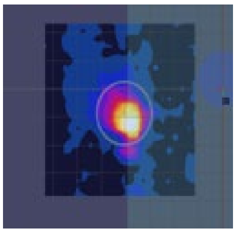
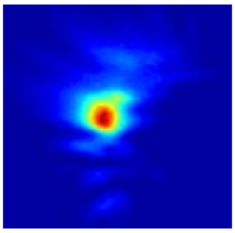
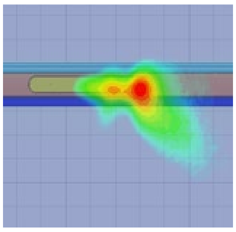
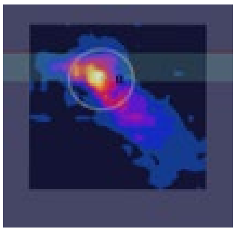
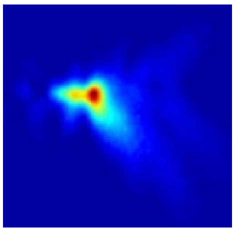
- Table 2-2, n261 ANT M-Patch: Mid Channel, Beam ID 165 for Rear and 156 for Left surfaces

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm MG Script
165	S2 (Rear)				
156	S3 (Left)				

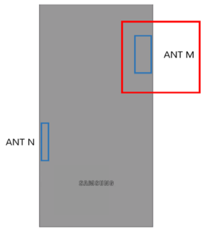
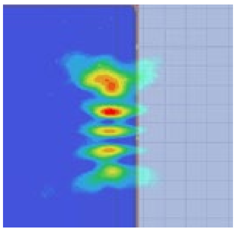
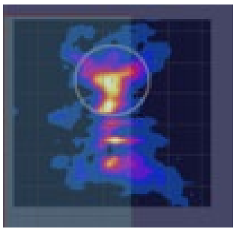
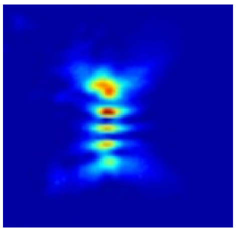
- Table 2-3, n261 ANT N-Patch: Mid Channel, Beam ID 40 for Rear and 29 for Right surfaces

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm MG Script
40	S2 (Rear)				
29	S4 (Right)				

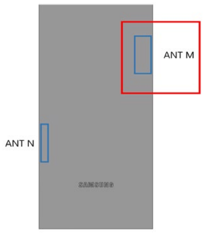
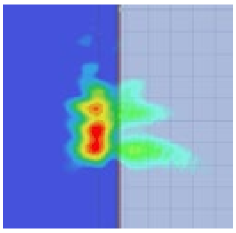
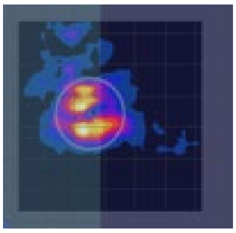
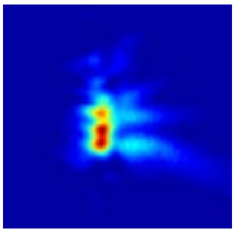
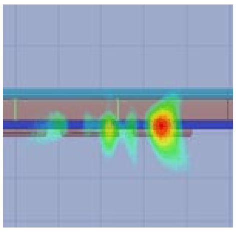
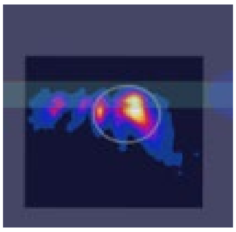
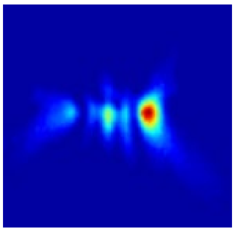
- Table 2-4, n261 ANT N-Patch: Mid Channel, Beam ID 161

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm MG Script
161	S2 (Rear)				
	S4 (Right)				

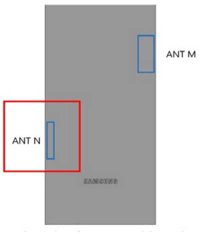
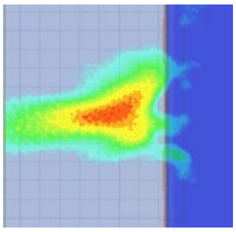
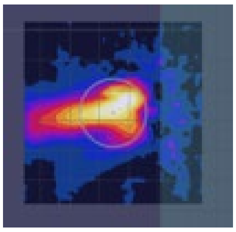
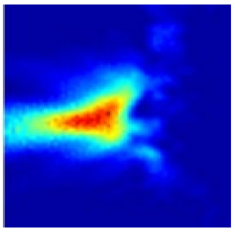
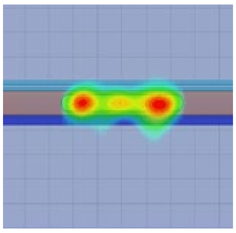
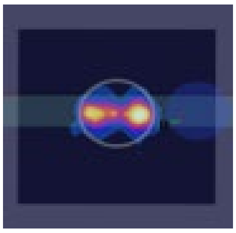
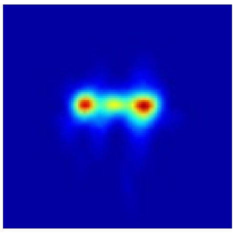
- Table 2-5, n260 ANT M-Patch: Mid Channel, Beam ID 28 for Rear surface

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

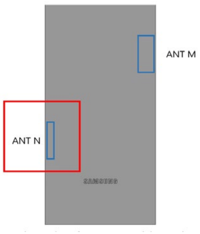
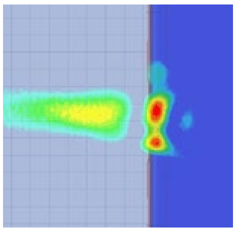
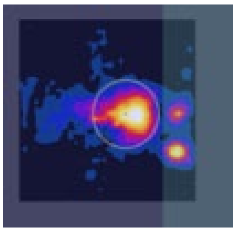
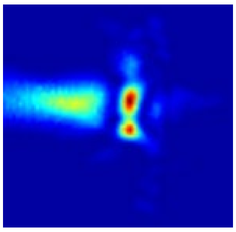
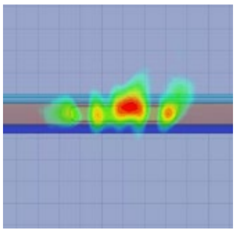
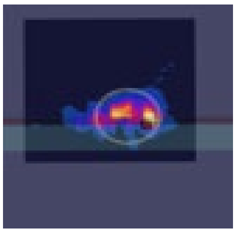
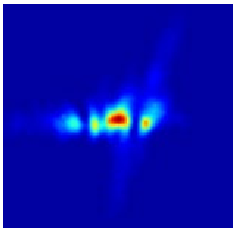
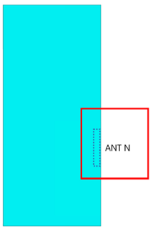
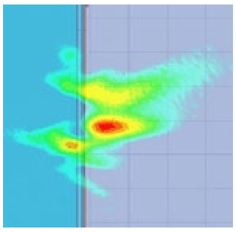
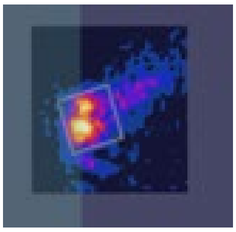
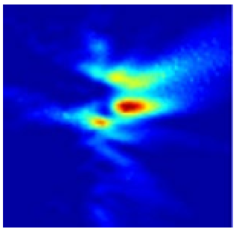
- Table 2-6, n260 ANT M-Patch: Mid Channel, Beam ID 155 for Rear and 156 for Left surfaces

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm MG Script
155	S2 (Rear)				
156	S3 (Left)				

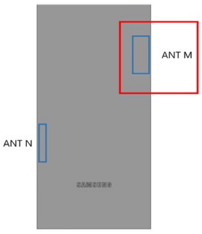
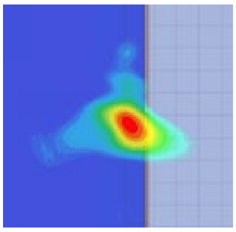
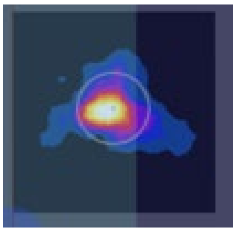
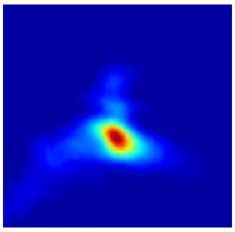
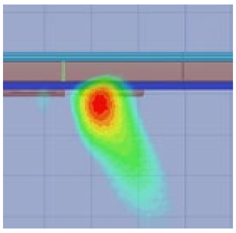
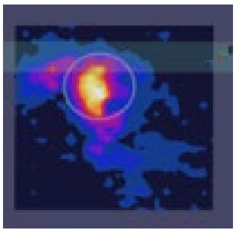
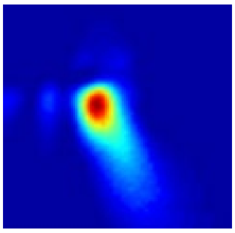
- Table 2-7, n260 ANT N-Patch: Mid Channel, Beam ID 40 for Rear and 31 for Right surfaces

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm MG Script
40	S2 (Rear)				
31	S4 (Right)				

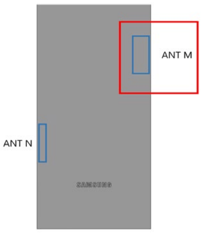
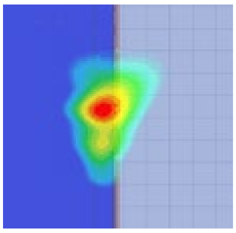
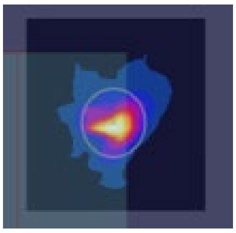
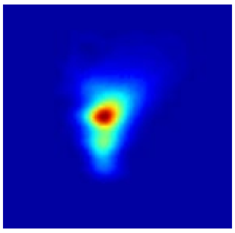
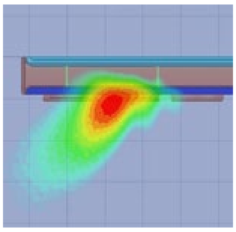
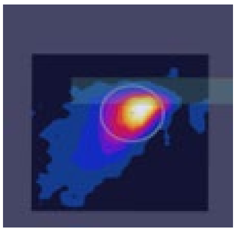
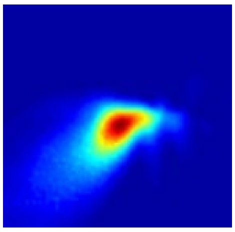
- Table 2-8, n260 ANT N-Patch: Mid Channel, Beam ID 167 for Rear and 166 for Right and Front surfaces

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm MG Script
167	S2 (Rear)				
166	S4 (Right)				
	S1 (Front)				

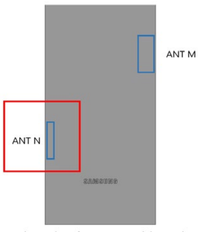
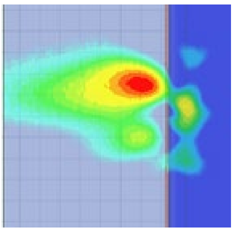
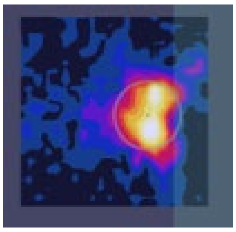
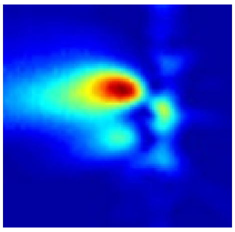
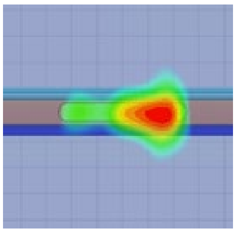
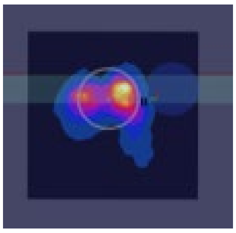
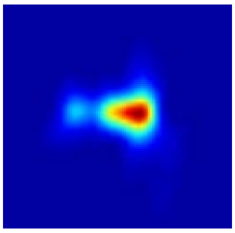
- Table 2-9, n258 ANT M-Patch: Mid Channel, Beam ID 37 for Rear and 28 for Left surfaces

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm MG Script
37	S2 (Rear)				
28	S3 (Left)				

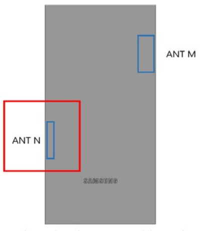
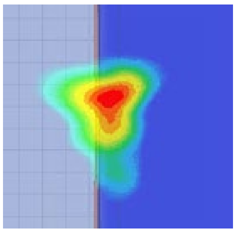
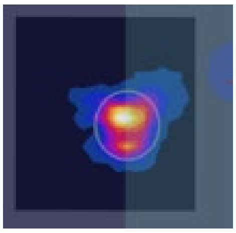
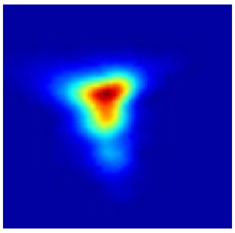
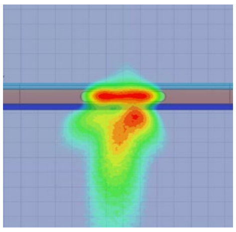
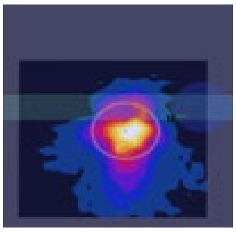
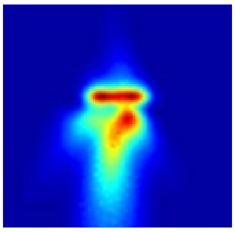
- Table 2-10, n258 ANT M-Patch: Mid Channel, Beam ID 162

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

- Table 2-11, n258 ANT N-Patch: Mid Channel, Beam ID 32 for Rear and 40 for Right surfaces

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm MG Script
32	S2 (Rear)				
40	S4 (Right)				

- Table 2-12, n258 ANT N-Patch: Mid Channel, Beam ID 157 for Rear and 167 for Right surfaces

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm MG Script
157	S2 (Rear)				
167	S4 (Right)				

The Smart transmit GEN2 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 MG script" to print the PD plots for all the beams selected and evaluated for model validation.

- Throughout above comparisons (Table 2-1 to 2-12), the model validation including MG script were verified.

VERIFICATION 2: Contribution factors from Qualcomm MG script and from HFSS for selected beams, and normalized combined PD verification, for A3LSMS908U device with 2 QTMs. The printed contribution factor from Qualcomm MG Script was within 2% numerical tolerance of the simulated contribution factor. Additionally, the normalized combined PD is < 1.0.

[n261 band]

				Worst-case surface:	S2 (Back surface)	
				Worst-case location (x,y,z) in meters:	Worst 4cm2 PD value location is 0.03106m, 0.07870m, -0.01250m	
				PD_design_target (W/m^2)	6.31	
Values printed from Qualcomm MG Script					Values obtained by OEM using EM simulation tool	
QTM #	Beam ID	c(i,j) i = beam ID j = QTM #	Backoff factor b_j	$verification.sim.power_{limit}$ (before backoffs) [dBm]	simulated 4cm2 PD(i,j) at (0.03106m, 0.07870m, -0.01250m) at $verification.sim.power_{limit}$ on S2	$C_{simulated}(i,j)$= 4cm^{2}PD(i,j)/ *PD_design_target*
0	157	1.0000	0.955	6.55	6.31037	1.0001
1	13	0.0194	0.9772	6.9	0.12210	0.0194
	Verify 1:	$C(i,j) = C_{simulated}(i,j),\ i = 157,\ 13;\ j = 0,\ 1$				
	Verify 2:	$b_0{*}c(157,0) + b_1{*}c(13,1) = 0.955{*}1.000 + 0.9772{*}0.0194 = 0.974 \le 1$				

[n260 band]

				Worst-case surface:	S2 (Back surface)	
				Worst-case location (x,y,z) in meters:	Worst 4cm2 PD value location is -0.03894m, 0.11670m, -0.01250m	
				PD_design_target (W/m^2)	6.31	
Values printed from Qualcomm MG Script					Values obtained by OEM using EM simulation tool	
QTM #	Beam ID	c(i,j) i = beam ID j = QTM #	Backoff factor b_j	$verification.sim.power_{limit}$ (before backoffs) [dBm]	simulated 4cm2 PD(i,j) at (-0.03894m, 0.11670m, -0.01250m) at $verification.sim.power_{limit}$ on S2	$C_{simulated}(i,j)$= 4cm^{2}PD(i,j)/ *PD_design_target*
0	166	0.0053	0.955	4.3	0.03367	0.0053
1	128	0.9999	0.9772	10.64	6.31342	1.0005
	Verify 1:	$C(i,j) = C_{simulated}(i,j),\ i = 166,\ 128;\ j = 0,\ 1$				
	Verify 2:	$b_0{*}c(166,0) + b_1{*}c(128,1) = 0.955{*}0.0053 + 0.9772{*}0.9999 = 0.982 \le 1$				

[n258 band]

Worst-case surface:					S2 (Back surface)	
Worst-case location (x,y,z) in meters:					Worst 4cm2 PD value location is 0.03506m, 0.04470m, -0.01250m	
PD_design_target (W/m^2)					6.31	
Values printed from Qualcomm MG Script					Values obtained by OEM using EM simulation tool	
QTM #	Beam ID	c(i,j) i = beam ID j = QTM #	Backoff factor b_j	*verification.sim.power* $_{limit}$ (before backoffs) [dBm]	simulated 4cm2 PD(i,j) at (0.03506m, 0.04470m, -0.01250m) at *verification.sim.power* $_{limit}$ on S2	$C_{simulated}(i,j)=$ 4cm^{2}PD(i,j)/ *PD_design_target*
0	160	1.0000	0.955	5.78	6.31025	1.0000
1	24	0.0268	0.9772	6.67	0.16941	0.0268
Verify 1:		$C(i,j) = C_{simulated}(i,j),\ i = 160, 24;\ j = 0, 1$				
Verify 2:		$b_0 * c(160,0) + b_1 * c(24,1) = 0.955*1.0000 + 0.9772*0.0268 = 0.9812 \leq 1$				

VERIFICATION3: Measured 4cm^2 PD on worst surface and combined PD at worst-case location for A3LSMS908U device with 2 QTMS. The device should be measured at the reference power level and scaled to the input.power.limit. The combined PD should be less than or equal to the *PD_Design_Target* within the uncertainty at the reference power level.

[n261 band]

QTM #	Beam ID	c(i,j) i = beam ID j = QTM #	Dominant surface	4cm2 PD at input.power.limit on QTM dominant surface (W/m2)	input.power.limit (before permanent backoff)	Measured PD at reference power level on Beam Dominant Surface (mW/cm2)
0	157	1.0000	S3 (Back)	1.826	8.280	0.108
1	13	0.0194	S3 (Back)	6.557	8.580	0.362
combined PD at the worst-case location (x,y,z)				c(157,0)*meas.4cm^{2}PD(157,0) + c(13,1)*meas.4cm^{2}PD(13,1) = 1.000*1.826 + 0.0194*6.557 = 1.953 W/m^2		
PD_design_target + uncertainty at reference power level of 0.63 dB				= 6.310*10^(0.63/10) = 7.295 W/m^2		
Verify				combined PD < PD_design_target + uncertainty at reference power level		

[n260 band]

QTM #	Beam ID	c(i,j) i = beam ID j = QTM #	Dominant surface	4cm2 PD at input.power.limit on QTM dominant surface (W/m2)	input.power.limit (before permanent backoff)	Measured PD at reference power level on Beam Dominant Surface (mW/cm2)
0	166	0.0053	S4 (Right)	7.338	5.940	0.744
1	128	0.9999	S3 (Back)	4.238	12.710	0.090
combined PD at the worst-case location (x,y,z)				c(166,0)*meas.4cm^{2}PD(166,0) + c(128,1)*meas.4cm^{2}PD(128,1) = 0.0053*7.338 + 0.9999*4.238 = 4.276 W/m^2		
PD_design_target + uncertainty at reference power level of 0.63 dB				= 6.310*10^(0.63/10) = 7.295 W/m^2		
Verify				combined PD < PD_design_target + uncertainty at reference power level		

[n258 band]

QTM #	Beam ID	c(i,j) i = beam ID j = QTM #	Dominant surface	4cm2 PD at input.power.limit on QTM dominant surface (W/m2)	input.power.limit (before permanent backoff)	Measured PD at reference power level on Beam Dominant Surface (mW/cm2)
0	160	1.0000	S3 (Back)	2.679	4.940	0.342
1	24	0.0268	S3 (Back)	8.597	8.540	0.479
combined PD at the worst-case location (x,y,z)				c(160,0)*meas.4cm^{2}PD(160,0) + c(24,1)*meas.4cm^{2}PD(24,1) = 1.000*2.679 + 0.0268*8.597 = 2.910 W/m^2		
PD_design_target + uncertainty at reference power level of 0.63 dB				= 6.310*10^(0.63/10) = 7.295 W/m^2		
Verify				combined PD < PD_design_target + uncertainty at reference power level		

3 Simulation results

This section shows the PD simulation results of Ant M and Ant N at 28GHz, 39GHz and 24GHz for all the surfaces specified in Table 1 at two separation distances of 2mm and 10mm. The ratio of PD exposure from various surfaces 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 M– Patch Antenna

Table 3 to 5 show the PD simulation evaluation of Ant M patch antenna at 28GHz / 39GHz / 24GHz for the corresponding evaluation planes specified in Table 1.

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

- M–patch Low CH

													max ratio out of all beams													max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							4.7%	80.3%	13.9%	2.0%	13.8%	100.0%	4cm2 PD(mW/cm2) at 10mm evaluation distance						64.3%	3.7%	41.1%	8.7%	1.7%	6.1%	64.3%
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
1	M	Patch	0		1	0.01	0.17	0.01	0.00	0.03	0.25		2.4%	66.8%	2.0%	0.4%	13.8%	100.0%	0.01	0.07	0.00	0.00	0.02	0.11	42.9%	2.0%	28.3%	1.6%	0.4%	6.1%	42.9%
2			2		1	0.01	0.15	0.01	0.00	0.01	0.30		3.0%	50.0%	3.6%	0.3%	4.3%	100.0%	0.01	0.06	0.01	0.00	0.01	0.15	48.4%	2.3%	19.4%	2.3%	0.3%	2.6%	48.4%
3			4		1	0.01	0.17	0.01	0.00	0.02	0.28		1.8%	60.7%	4.0%	0.4%	5.5%	100.0%	0.00	0.06	0.01	0.00	0.01	0.14	49.8%	1.5%	22.5%	2.5%	0.4%	2.5%	49.8%
4			6		1	0.00	0.13	0.01	0.00	0.02	0.25		1.6%	50.6%	4.0%	0.4%	7.1%	100.0%	0.00	0.04	0.01	0.00	0.01	0.12	48.2%	1.2%	17.4%	2.0%	0.4%	2.4%	48.2%
5			8		1	0.00	0.21	0.02	0.00	0.03	0.32		1.3%	66.1%	5.7%	0.3%	9.8%	100.0%	0.00	0.09	0.01	0.00	0.02	0.15	47.2%	1.3%	28.5%	3.5%	0.3%	4.7%	47.2%
6			10		2	0.02	0.24	0.04	0.00	0.03	0.43		4.7%	55.1%	9.3%	0.5%	6.5%	100.0%	0.02	0.11	0.03	0.00	0.01	0.21	48.4%	3.7%	24.4%	5.8%	0.5%	2.8%	48.4%
7			11		2	0.02	0.39	0.03	0.00	0.03	0.68		2.4%	57.2%	3.8%	0.1%	4.0%	100.0%	0.01	0.16	0.02	0.00	0.01	0.39	56.6%	2.1%	22.9%	2.2%	0.1%	1.8%	56.6%
8			12		2	0.02	0.42	0.01	0.00	0.06	0.61		2.8%	67.8%	1.5%	0.3%	9.2%	100.0%	0.02	0.19	0.01	0.00	0.03	0.30	48.2%	2.5%	31.7%	1.1%	0.3%	4.9%	48.2%
9			13		2	0.02	0.36	0.01	0.00	0.06	0.53		3.0%	67.9%	2.7%	0.6%	11.4%	100.0%	0.01	0.18	0.01	0.00	0.03	0.25	47.0%	2.7%	33.3%	2.1%	0.4%	5.3%	47.0%
10			18		2	0.02	0.34	0.03	0.00	0.04	0.56		2.8%	59.7%	4.8%	0.2%	6.7%	100.0%	0.01	0.15	0.02	0.00	0.02	0.28	49.7%	2.5%	25.9%	3.2%	0.2%	3.9%	49.7%
11			19		2	0.01	0.46	0.01	0.00	0.02	0.74		1.3%	62.0%	1.5%	0.1%	2.6%	100.0%	0.01	0.19	0.01	0.00	0.01	0.45	60.1%	1.1%	25.6%	0.9%	0.1%	1.3%	60.1%
12			20		2	0.01	0.28	0.03	0.00	0.02	0.47		2.5%	60.2%	5.3%	0.8%	4.7%	100.0%	0.01	0.11	0.02	0.00	0.01	0.24	50.8%	1.9%	22.2%	3.4%	0.8%	2.1%	50.8%
13			24		5	0.03	0.74	0.16	0.00	0.08	1.17		2.5%	63.2%	13.8%	0.3%	6.7%	100.0%	0.02	0.33	0.09	0.00	0.04	0.63	53.5%	2.0%	28.3%	7.6%	0.3%	3.0%	53.5%
14			25		5	0.04	1.12	0.09	0.00	0.06	1.78		2.0%	63.1%	5.2%	0.1%	3.4%	100.0%	0.03	0.60	0.05	0.00	0.04	1.03	58.0%	1.7%	33.9%	2.9%	0.1%	2.0%	58.0%
15			26		5	0.03	1.00	0.02	0.00	0.12	1.46		2.0%	68.2%	1.4%	0.1%	8.3%	100.0%	0.02	0.53	0.01	0.00	0.06	0.89	61.2%	1.6%	36.3%	0.9%	0.1%	4.2%	61.2%
16			27		5	0.02	1.24	0.02	0.00	0.08	1.63		1.5%	76.1%	1.3%	0.2%	4.8%	100.0%	0.02	0.64	0.02	0.00	0.04	1.01	61.8%	1.3%	39.0%	1.0%	0.1%	2.3%	61.8%
17			28		5	0.02	1.01	0.03	0.02	0.08	1.46		1.0%	69.5%	1.8%	1.2%	5.3%	100.0%	0.01	0.45	0.02	0.02	0.05	0.79	54.1%	0.9%	30.9%	1.2%	1.0%	3.1%	54.1%
18			34		5	0.04	1.04	0.15	0.00	0.06	1.63		2.4%	64.0%	9.3%	0.1%	3.6%	100.0%	0.03	0.52	0.08	0.00	0.03	0.91	56.1%	2.0%	32.0%	5.2%	0.1%	1.6%	56.1%
19			35		5	0.06	1.00	0.04	0.00	0.11	1.54		4.1%	65.2%	2.5%	0.1%	7.4%	100.0%	0.05	0.55	0.03	0.00	0.07	0.95	61.6%	3.4%	35.6%	1.6%	0.1%	4.4%	61.6%
20			36		5	0.03	1.08	0.02	0.00	0.09	1.49		1.8%	72.6%	1.1%	0.1%	6.0%	100.0%	0.02	0.57	0.01	0.00	0.04	0.96	64.3%	1.6%	38.1%	0.6%	0.1%	2.9%	64.3%
21			37		5	0.02	1.17	0.02	0.01	0.06	1.69		1.1%	69.4%	1.4%	0.5%	3.7%	100.0%	0.02	0.56	0.01	0.01	0.04	0.93	55.2%	1.0%	33.3%	0.8%	0.5%	2.1%	55.2%
22			128		1	0.00	0.19	0.01	0.00	0.02	0.40		1.0%	47.3%	2.3%	0.8%	3.8%	100.0%	0.00	0.06	0.01	0.00	0.01	0.17	43.3%	0.8%	13.9%	2.0%	0.8%	1.8%	43.3%
23			130		1	0.00	0.21	0.01	0.00	0.01	0.41		0.5%	51.8%	2.7%	1.0%	2.9%	100.0%	0.00	0.07	0.01	0.00	0.01	0.17	40.0%	0.5%	16.7%	1.9%	0.7%	1.7%	40.0%
24			132		1	0.00	0.24	0.01	0.00	0.02	0.38		0.5%	62.2%	3.4%	0.5%	5.7%	100.0%	0.00	0.09	0.01	0.00	0.01	0.17	43.2%	0.3%	22.1%	2.3%	0.5%	2.3%	43.2%
25			134		1	0.00	0.25	0.02	0.00	0.01	0.40		0.2%	61.1%	3.7%	0.2%	3.2%	100.0%	0.00	0.10	0.01	0.00	0.01	0.18	44.8%	0.2%	24.3%	2.2%	0.2%	1.5%	44.8%
26			136		1	0.00	0.22	0.02	0.00	0.01	0.34		0.3%	63.5%	6.8%	0.3%	3.2%	100.0%	0.00	0.06	0.02	0.00	0.00	0.14	42.1%	0.3%	18.8%	4.4%	0.3%	1.2%	42.1%
27			138		2	0.01	0.41	0.03	0.01	0.02	0.74		0.9%	55.1%	4.2%	0.9%	2.8%	100.0%	0.01	0.15	0.02	0.01	0.01	0.39	53.2%	0.9%	20.1%	3.2%	0.8%	1.3%	53.2%
28			139		2	0.01	0.50	0.01	0.00	0.03	0.87		0.6%	58.3%	1.2%	0.1%	3.4%	100.0%	0.00	0.20	0.01	0.00	0.02	0.49	56.3%	0.5%	23.6%	0.7%	0.1%	1.7%	56.3%
29			140		2	0.00	0.57	0.00	0.00	0.04	0.84		0.5%	68.3%	0.5%	0.4%	4.2%	100.0%	0.00	0.25	0.00	0.00	0.02	0.41	48.8%	0.4%	29.5%	0.4%	0.4%	1.8%	48.8%
30			141		2	0.01	0.49	0.03	0.01	0.04	0.79		0.9%	61.6%	3.2%	1.5%	4.4%	100.0%	0.01	0.16	0.02	0.01	0.02	0.38	48.4%	0.8%	20.6%	2.4%	1.3%	2.4%	48.4%
31			146		2	0.01	0.46	0.02	0.00	0.02	0.81		0.7%	56.3%	2.7%	0.4%	2.8%	100.0%	0.01	0.18	0.02	0.00	0.01	0.45	54.9%	0.7%	21.9%	2.0%	0.4%	1.5%	54.9%
32			147		2	0.01	0.52	0.00	0.00	0.03	0.88		0.6%	58.7%	0.5%	0.1%	3.6%	100.0%	0.00	0.21	0.00	0.00	0.02	0.49	55.6%	0.5%	23.6%	0.3%	0.1%	1.8%	55.6%
33			148		2	0.01	0.52	0.01	0.01	0.03	0.87		0.8%	60.1%	1.6%	1.0%	3.2%	100.0%	0.01	0.19	0.01	0.01	0.02	0.45	52.2%	0.7%	21.7%	1.2%	0.8%	1.7%	52.2%
34			152		5	0.01	1.26	0.24	0.01	0.08	2.18		0.5%	57.7%	11.2%	0.2%	3.5%	100.0%	0.01	0.56	0.15	0.00	0.03	1.11	50.8%	0.4%	25.9%	6.9%	0.2%	1.4%	50.8%
35			153		5	0.01	1.50	0.07	0.00	0.05	2.01		0.4%	74.3%	3.6%	0.0%	2.2%	100.0%	0.01	0.75	0.03	0.00	0.02	1.26	62.6%	0.3%	37.2%	1.7%	0.0%	1.1%	62.6%
36			154		5	0.01	1.38	0.01	0.00	0.08	1.94		0.6%	71.3%	0.6%	0.1%	4.0%	100.0%	0.01	0.73	0.01	0.00	0.04	1.15	59.3%	0.5%	37.8%	0.3%	0.1%	2.3%	59.3%
37			155		5	0.02	1.51	0.02	0.00	0.12	2.16		0.9%	69.5%	0.8%	0.1%	5.5%	100.0%	0.01	0.73	0.01	0.00	0.06	1.30	60.0%	0.6%	33.9%	0.5%	0.1%	2.9%	60.0%
38			156		5	0.02	1.50	0.04	0.04	0.16	2.14		0.7%	70.1%	1.6%	1.6%	7.6%	100.0%	0.01	0.64	0.03	0.03	0.07	0.94	44.1%	0.6%	29.8%	1.3%	1.4%	3.1%	44.1%
39			162		5	0.01	1.44	0.19	0.00	0.06	2.21		0.4%	65.3%	8.5%	0.1%	2.9%	100.0%	0.01	0.68	0.12	0.00	0.03	1.26	57.0%	0.3%	30.8%	5.2%	0.1%	1.2%	57.0%
40			163		5	0.01	1.40	0.03	0.00	0.04	1.92		0.4%	73.0%	1.5%	0.1%	2.3%	100.0%	0.01	0.72	0.02	0.00	0.02	1.18	61.3%	0.3%	37.7%	0.9%	0.1%	1.1%	61.3%
41			164		5	0.01	1.45	0.02	0.00	0.11	2.00		0.6%	72.5%	0.9%	0.2%	5.6%	100.0%	0.01	0.76	0.01	0.00	0.06	1.20	60.2%	0.5%	38.0%	0.7%	0.2%	3.1%	60.2%
42			165		5	0.02	1.47	0.02	0.01	0.14	2.24		1.0%	65.4%	0.7%	0.3%	6.2%	100.0%	0.02	0.68	0.01	0.01	0.07	1.24	55.4%	0.8%	30.2%	0.4%	0.2%	3.1%	55.4%
43			0	128	2	0.01	0.45	0.02	0.01	0.07	0.75		1.6%	60.1%	2.1%	0.8%	9.9%	100.0%	0.01	0.15	0.01	0.01	0.03	0.33	43.9%	1.3%	19.6%	1.6%	0.7%	4.3%	43.9%
44			2	130	2	0.01	0.39	0.03	0.01	0.03	0.76		1.5%	51.7%	4.0%	0.9%	3.6%	100.0%	0.01	0.14	0.02	0.01	0.01	0.32	42.6%	1.3%	18.6%	2.9%	0.8%	1.6%	42.6%
45			4	132	2	0.01	0.44	0.04	0.01	0.04	0.76		1.3%	58.3%	5.0%	0.7%	4.6%	100.0%	0.01	0.17	0.03	0.00	0.02	0.35	46.3%	1.1%	21.8%	3.6%	0.5%	2.1%	46.3%
46			6	134	2	0.01	0.43	0.04	0.00	0.04	0.73		0.8%	58.4%	4.9%	0.5%	4.9%	100.0%	0.01	0.16	0.03	0.00	0.02	0.34	46.2%	0.7%	22.2%	3.4%	0.5%	2.2%	46.2%
47			8	136	2	0.01	0.48	0.06	0.00	0.06	0.76		0.8%	63.8%	7.8%	0.5%	7.4%	100.0%	0.01	0.19	0.04	0.00	0.03	0.35	45.6%	0.8%	25.3%	4.9%	0.5%	3.6%	45.6%
48			10	138	4	0.04	0.78	0.09	0.02	0.06	1.37		2.9%	56.6%	6.4%	1.1%	4.5%	100.0%	0.03	0.30	0.06	0.01	0.04	0.63	45.9%	2.5%	21.6%	4.5%	0.9%	2.6%	45.9%
49			11	139	4	0.03	0.98	0.05	0.00	0.07	1.62		2.0%	60.7%	2.8%	0.1%	4.1%	100.0%	0.03	0.39	0.03	0.00	0.04	0.86	53.0%	1.7%	23.7%	1.8%	0.1%	2.5%	53.0%
50			12	140	4	0.02	0.92	0.02	0.01	0.11	1.28		1.8%	72.1%	1.3%	0.7%	8.4%	100.0%	0.02	0.40	0.01	0.01	0.05	0.63	49.6%	1.6%	31.4%	0.9%	0.6%	4.0%	49.6%
51			13	141	4	0.02	1.17	0.05	0.02	0.11	1.65		1.4%	71.0%	2.8%	1.5%	6.6%	100.0%	0.02	0.44	0.04	0.02	0.06	0.80	48.6%	1.1%	26.7%	2.2%	1.2%	3.3%	48.6%
52			18	146	4	0.03	0.95	0.05	0.01	0.07	1.51		1.7%	62.5%	3.6%	0.3%	4.5%	100.0%	0.02	0.37	0.04	0.00	0.03	0.76	50.2%	1.4%	24.2%	2.6%	0.3%	2.2%	50.2%
53			19	147	4	0.02	1.05	0.02	0.00	0.06	1.69		1.1%	62.3%	1.2%	0.2%	3.6%	100.0%	0.02	0.42	0.01	0.00	0.04	0.94	55.7%	0.9%	25.0%	0.8%	0.1%	2.2%	55.7%
54			20	148	4	0.02	0.84	0.06	0.02	0.07	1.44		1.2%	58.2%	4.0%	1.4%	4.9%	100.0%	0.02	0.32	0.04	0.02	0.03	0.75	51.9%	1.0%	21.9%	2.7%	1.2%	2.4%	51.9%
55			24	152	10	0.04	2.71	0.55	0.01	0.18	3.94		0.9%	68.8%	13.9%	0.3%	4.5%	100.0%	0.03	1.21	0.34	0.01	0.08	2.08	52.9%	0.8%	30.7%	8.7%	0.3%	1.9%	52.9%
56			25	153	10	0.05	3.27	0.22	0.00	0.13	4.07		1.3%	80.3%	5.4%	0.1%	3.1%	100.0%	0.04	1.67	0.10	0.00	0.07	2.49	61.2%	1.1%	41.1%	2.6%	0.0%	1.7%	61.2%
57			26	154	10	0.04	2.56	0.04	0.00	0.27	3.55		1.2%	72.1%	1.0%	0.1%	7.6%	100.0%	0.04	1.36	0.02	0.00	0.15	2.20	61.9%	1.1%	38.4%	0.6%	0.1%	4.3%	61.9%
58			27	155	10	0.06	3.07	0.05	0.01	0.26	4.31		1.4%	71.4%	1.3%	0.2%	6.1%	100.0%	0.06	1.53	0.04	0.01	0.14	2.67	62.1%	1.3%	35.5%	0.8%	0.1%	3.2%	62.1%
59			28	156	10	0.05	3.23	0.09	0.09	0.32	4.32		1.2%	74.8%	2.0%	2.0%	7.4%	100.0%	0.04	1.31	0.06	0.07	0.12	2.01	46.5%	0.9%	30.4%	1.5%	1.7%	2.8%	46.5%
60			34	162	10	0.05	3.28	0.45	0.01	0.18	4.20		1.2%	78.0%	10.7%	0.1%	4.3%	100.0%	0.04	1.57	0.27	0.01	0.08	2.42	57.5%	1.0%	37.5%	6.4%	0.1%	2.0%	57.5%
61			35	163	10	0.08	2.74	0.06	0.00	0.22	3.70		2.1%	73.9%	1.6%	0.1%	5.9%	100.0%	0.06	1.48	0.04	0.00	0.13	2.27	61.3%	1.6%	40.0%	1.2%	0.1%	3.5%	61.3%
62			36	164	10	0.06	2.75	0.04	0.01	0.26	3.72		1.6%	73.9%	1.0%	0.2%	7.0%	100.0%	0.05	1.40	0.03	0.01	0.16	2.38	64.0%	1.4%	37.6%	0.7%	0.2%	4.2%	64.0%
63			37	165	10	0.07	3.13	0.05	0.02	0.25	4.67		1.4%	66.9%	1.0%	0.4%	5.3%	100.0%	0.06	1.42	0.03	0.02	0.11	2.64	56.5%	1.2%	30.4%	0.7%	0.4%	2.3%	56.5%

- ## M–patch Mid CH

													max ratio out of all beams												max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							3.5%	78.2%	14.6%	1.8%	17.0%	100.0%	4cm2 PD(mW/cm2) at 10mm evaluation distance						63.1%	3.0%	41.8%	8.6%	1.6%	8.1%	63.1%
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
1	M	Patch	0		1	0.01	0.16	0.01	0.00	0.04	**0.22**		2.7%	70.4%	2.2%	0.4%	17.0%	100.0%	0.01	0.08	0.00	0.00	0.02	**0.10**	42.6%	2.2%	34.1%	1.8%	0.0%	8.1%	42.6%
2			2		1	0.01	0.16	0.01	0.00	0.02	**0.32**		1.9%	49.2%	3.1%	0.3%	4.7%	100.0%	0.01	0.06	0.01	0.00	0.01	**0.16**	49.8%	1.6%	19.7%	2.5%	0.3%	2.2%	49.8%
3			4		1	0.01	0.17	0.01	0.00	0.01	**0.26**		2.3%	62.7%	4.2%	0.4%	4.6%	100.0%	0.01	0.07	0.01	0.00	0.01	**0.13**	49.4%	1.9%	24.7%	3.0%	0.4%	2.7%	49.4%
4			6		1	0.01	0.13	0.01	0.00	0.02	**0.26**		2.0%	52.0%	3.9%	0.8%	8.6%	100.0%	0.00	0.05	0.01	0.00	0.01	**0.12**	46.9%	1.6%	18.0%	2.3%	0.8%	3.5%	46.9%
5			8		1	0.00	0.19	0.02	0.00	0.03	**0.29**		1.0%	66.1%	6.6%	0.3%	11.1%	100.0%	0.00	0.09	0.01	0.00	0.02	**0.13**	45.0%	1.0%	30.4%	3.5%	0.3%	5.2%	45.0%
6			10		2	0.02	0.24	0.04	0.00	0.03	**0.45**		3.3%	53.5%	8.5%	0.4%	6.7%	100.0%	0.01	0.11	0.03	0.00	0.02	**0.20**	45.4%	2.7%	23.8%	6.0%	0.4%	3.6%	45.4%
7			11		2	0.01	0.40	0.02	0.00	0.03	**0.69**		1.9%	58.7%	3.5%	0.1%	5.0%	100.0%	0.01	0.18	0.02	0.00	0.02	**0.40**	57.6%	1.6%	25.7%	2.3%	0.1%	2.6%	57.6%
8			12		2	0.02	0.42	0.01	0.00	0.06	**0.62**		2.8%	67.6%	1.0%	0.2%	9.1%	100.0%	0.01	0.21	0.00	0.00	0.03	**0.29**	47.5%	2.1%	34.3%	0.7%	0.2%	5.0%	47.5%
9			13		2	0.02	0.35	0.01	0.00	0.06	**0.51**		3.5%	68.8%	1.9%	0.4%	11.3%	100.0%	0.01	0.19	0.01	0.00	0.03	**0.23**	45.6%	2.7%	37.2%	1.2%	0.2%	5.8%	45.6%
10			18		2	0.02	0.29	0.03	0.00	0.05	**0.54**		3.0%	52.8%	4.8%	0.2%	8.3%	100.0%	0.01	0.13	0.02	0.00	0.02	**0.27**	50.6%	2.6%	23.9%	3.5%	0.2%	4.4%	50.6%
11			19		2	0.01	0.46	0.01	0.00	0.03	**0.74**		1.4%	62.9%	1.5%	0.1%	3.8%	100.0%	0.01	0.20	0.01	0.00	0.01	**0.44**	59.6%	1.2%	27.4%	0.8%	0.1%	1.9%	59.6%
12			20		2	0.01	0.31	0.03	0.01	0.02	**0.49**		1.6%	62.6%	7.0%	1.0%	4.9%	100.0%	0.01	0.12	0.02	0.00	0.01	**0.25**	51.1%	1.4%	25.4%	4.5%	0.8%	2.0%	51.1%
13			24		5	0.02	0.71	0.16	0.00	0.09	**1.10**		2.1%	64.1%	14.6%	0.4%	8.2%	100.0%	0.02	0.32	0.09	0.00	0.04	**0.63**	56.6%	1.7%	29.3%	8.1%	0.3%	3.7%	56.6%
14			25		5	0.04	0.98	0.08	0.00	0.07	**1.62**		2.5%	60.5%	4.6%	0.1%	4.5%	100.0%	0.03	0.52	0.04	0.00	0.04	**0.96**	59.1%	2.0%	32.3%	2.3%	0.1%	2.4%	59.1%
15			26		5	0.03	0.96	0.03	0.00	0.11	**1.44**		2.2%	66.7%	1.9%	0.1%	7.8%	100.0%	0.03	0.52	0.02	0.00	0.06	**0.85**	59.2%	1.9%	36.0%	1.1%	0.1%	3.9%	59.2%
16			27		5	0.02	1.29	0.02	0.00	0.11	**1.66**		1.1%	77.7%	1.4%	0.1%	6.6%	100.0%	0.02	0.69	0.02	0.00	0.05	**1.05**	63.0%	0.9%	41.8%	0.9%	0.1%	2.7%	63.0%
17			28		5	0.02	1.02	0.03	0.02	0.08	**1.42**		1.1%	72.4%	2.0%	1.1%	5.5%	100.0%	0.01	0.51	0.02	0.01	0.04	**0.76**	53.6%	0.8%	35.8%	1.3%	0.9%	2.9%	53.6%
18			34		5	0.03	0.91	0.14	0.00	0.07	**1.48**		2.3%	61.6%	9.1%	0.2%	4.4%	100.0%	0.03	0.45	0.07	0.00	0.03	**0.85**	57.5%	1.9%	30.6%	4.9%	0.1%	2.0%	57.5%
19			35		5	0.05	0.87	0.03	0.00	0.13	**1.43**		3.4%	61.1%	1.9%	0.1%	8.8%	100.0%	0.04	0.49	0.02	0.00	0.07	**0.87**	61.0%	3.0%	34.6%	1.3%	0.1%	5.0%	61.0%
20			36		5	0.03	1.05	0.02	0.00	0.11	**1.43**		2.0%	73.4%	1.6%	0.2%	7.6%	100.0%	0.03	0.56	0.01	0.00	0.05	**0.90**	63.1%	1.7%	39.4%	0.8%	0.2%	3.1%	63.1%
21			37		5	0.01	1.26	0.03	0.01	0.07	**1.72**		0.7%	73.2%	1.6%	0.5%	4.3%	100.0%	0.01	0.65	0.02	0.01	0.04	**0.96**	55.8%	0.5%	37.9%	1.0%	0.4%	2.3%	55.8%
22			128		1	0.00	0.18	0.01	0.00	0.01	**0.38**		0.5%	48.1%	2.6%	0.8%	3.7%	100.0%	0.00	0.05	0.01	0.00	0.01	**0.16**	41.5%	0.5%	13.2%	2.1%	0.8%	1.9%	41.5%
23			130		1	0.00	0.22	0.01	0.00	0.01	**0.41**		0.5%	53.1%	2.4%	1.0%	2.7%	100.0%	0.00	0.07	0.01	0.00	0.01	**0.17**	40.6%	0.5%	17.1%	1.7%	0.7%	1.5%	40.6%
24			132		1	0.00	0.23	0.01	0.00	0.02	**0.38**		0.5%	60.2%	3.4%	0.5%	5.7%	100.0%	0.00	0.08	0.01	0.00	0.01	**0.17**	43.2%	0.3%	21.6%	2.3%	0.3%	2.6%	43.2%
25			134		1	0.00	0.24	0.01	0.00	0.01	**0.39**		0.5%	61.3%	3.1%	0.3%	2.8%	100.0%	0.00	0.10	0.01	0.00	0.01	**0.18**	45.5%	0.3%	24.9%	1.8%	0.3%	1.3%	45.5%
26			136		1	0.00	0.21	0.02	0.00	0.01	**0.34**		0.3%	62.3%	5.6%	0.3%	3.3%	100.0%	0.00	0.07	0.01	0.00	0.01	**0.14**	42.1%	0.3%	19.9%	3.9%	0.3%	1.5%	42.1%
27			138		2	0.01	0.41	0.03	0.01	0.02	**0.74**		0.7%	55.6%	3.8%	0.8%	2.6%	100.0%	0.00	0.16	0.02	0.01	0.01	**0.38**	52.2%	0.5%	21.2%	3.0%	0.7%	1.2%	52.2%
28			139		2	0.01	0.48	0.01	0.00	0.03	**0.86**		0.6%	55.2%	1.2%	0.1%	2.9%	100.0%	0.00	0.20	0.01	0.00	0.01	**0.47**	54.5%	0.5%	22.8%	0.8%	0.1%	1.5%	54.5%
29			140		2	0.00	0.58	0.00	0.00	0.03	**0.88**		0.3%	65.5%	0.3%	0.3%	3.3%	100.0%	0.00	0.25	0.00	0.00	0.01	**0.42**	47.1%	0.3%	28.7%	0.2%	0.3%	1.5%	47.1%
30			141		2	0.00	0.50	0.03	0.01	0.04	**0.76**		0.5%	66.1%	3.5%	1.6%	4.6%	100.0%	0.00	0.17	0.02	0.01	0.02	**0.37**	48.0%	0.4%	22.6%	2.5%	1.3%	2.4%	48.0%
31			146		2	0.01	0.44	0.02	0.00	0.02	**0.81**		0.6%	54.8%	2.4%	0.4%	2.4%	100.0%	0.00	0.18	0.02	0.00	0.01	**0.43**	53.6%	0.5%	21.9%	1.9%	0.2%	1.2%	53.6%
32			147		2	0.01	0.49	0.01	0.00	0.03	**0.87**		0.6%	56.1%	0.6%	0.1%	3.3%	100.0%	0.00	0.20	0.00	0.00	0.01	**0.47**	54.0%	0.5%	22.4%	0.2%	0.1%	1.6%	54.0%
33			148		2	0.01	0.53	0.02	0.01	0.03	**0.85**		0.6%	62.4%	2.0%	1.1%	3.6%	100.0%	0.00	0.19	0.01	0.01	0.01	**0.43**	50.9%	0.5%	22.6%	1.4%	0.9%	1.7%	50.9%
34			152		5	0.01	1.19	0.21	0.00	0.07	**2.06**		0.5%	58.0%	10.3%	0.2%	3.3%	100.0%	0.01	0.54	0.13	0.00	0.03	**1.08**	52.4%	0.3%	26.3%	6.4%	0.1%	1.4%	52.4%
35			153		5	0.01	1.49	0.08	0.00	0.04	**2.04**		0.3%	73.3%	3.8%	0.0%	1.9%	100.0%	0.01	0.76	0.04	0.00	0.02	**1.25**	61.4%	0.2%	37.1%	1.7%	0.0%	0.8%	61.4%
36			154		5	0.01	1.37	0.01	0.00	0.07	**1.94**		0.5%	70.6%	0.5%	0.1%	3.6%	100.0%	0.01	0.73	0.01	0.00	0.04	**1.14**	58.8%	0.4%	37.4%	0.3%	0.1%	2.0%	58.8%
37			155		5	0.01	1.51	0.02	0.00	0.10	**2.18**		0.5%	68.9%	0.8%	0.1%	4.7%	100.0%	0.01	0.75	0.01	0.00	0.05	**1.31**	59.9%	0.5%	34.4%	0.5%	0.1%	2.5%	59.9%
38			156		5	0.02	1.59	0.02	0.04	0.19	**2.21**		0.7%	72.0%	1.0%	1.6%	8.7%	100.0%	0.01	0.68	0.02	0.03	0.09	**0.96**	43.5%	0.6%	30.9%	0.7%	1.4%	3.9%	43.5%
39			162		5	0.01	1.43	0.18	0.00	0.06	**2.19**		0.4%	65.3%	8.2%	0.1%	2.7%	100.0%	0.01	0.69	0.11	0.00	0.03	**1.26**	57.5%	0.3%	31.4%	4.8%	0.1%	1.2%	57.5%
40			163		5	0.01	1.39	0.02	0.00	0.04	**1.92**		0.5%	72.3%	1.0%	0.1%	2.3%	100.0%	0.01	0.73	0.01	0.00	0.02	**1.16**	60.5%	0.4%	38.1%	0.6%	0.1%	1.0%	60.5%
41			164		5	0.01	1.45	0.01	0.00	0.10	**2.02**		0.4%	71.8%	0.6%	0.2%	5.1%	100.0%	0.01	0.76	0.01	0.00	0.06	**1.22**	60.4%	0.3%	37.7%	0.5%	0.1%	2.9%	60.4%
42			165		5	0.02	1.41	0.01	0.01	0.11	**2.26**		0.8%	62.4%	0.5%	0.3%	4.9%	100.0%	0.02	0.67	0.01	0.01	0.05	**1.23**	54.2%	0.7%	29.5%	0.4%	0.2%	2.4%	54.2%
43			0	128	2	0.01	0.44	0.02	0.01	0.08	**0.73**		1.5%	60.0%	2.2%	0.7%	10.7%	100.0%	0.01	0.16	0.01	0.00	0.04	**0.32**	43.3%	1.2%	22.1%	1.6%	0.5%	5.2%	43.3%
44			2	130	2	0.01	0.41	0.03	0.01	0.03	**0.76**		1.5%	54.6%	3.6%	0.9%	3.4%	100.0%	0.01	0.16	0.02	0.01	0.01	**0.33**	43.8%	1.1%	21.2%	2.6%	0.8%	1.5%	43.8%
45			4	132	2	0.01	0.43	0.04	0.00	0.04	**0.73**		1.6%	58.2%	5.0%	0.5%	5.0%	100.0%	0.01	0.16	0.03	0.00	0.02	**0.33**	45.0%	1.4%	21.9%	3.4%	0.5%	2.5%	45.0%
46			6	134	2	0.01	0.43	0.04	0.01	0.04	**0.72**		1.1%	60.1%	4.9%	0.7%	5.3%	100.0%	0.01	0.17	0.03	0.00	0.02	**0.34**	47.1%	1.0%	23.4%	3.5%	0.6%	2.1%	47.1%
47			8	136	2	0.01	0.43	0.06	0.00	0.05	**0.69**		0.9%	62.8%	8.4%	0.6%	7.8%	100.0%	0.01	0.19	0.04	0.00	0.03	**0.31**	44.8%	0.7%	27.1%	5.2%	0.6%	3.8%	44.8%
48			10	138	4	0.03	0.77	0.08	0.01	0.07	**1.38**		2.1%	55.8%	5.6%	1.0%	4.9%	100.0%	0.03	0.32	0.06	0.01	0.04	**0.63**	45.4%	1.8%	22.9%	4.3%	0.9%	2.9%	45.4%
49			11	139	4	0.03	0.95	0.05	0.00	0.08	**1.60**		1.6%	59.8%	2.8%	0.1%	4.9%	100.0%	0.02	0.40	0.03	0.00	0.05	**0.84**	52.8%	1.3%	24.9%	1.8%	0.1%	2.8%	52.8%
50			12	140	4	0.02	0.94	0.01	0.01	0.10	**1.39**		1.6%	68.1%	1.0%	0.5%	7.4%	100.0%	0.02	0.44	0.01	0.01	0.05	**0.68**	49.4%	1.3%	31.6%	0.7%	0.4%	3.5%	49.4%
51			13	141	4	0.02	1.22	0.05	0.02	0.12	**1.67**		1.4%	72.7%	3.1%	1.3%	7.0%	100.0%	0.02	0.51	0.04	0.02	0.06	**0.80**	47.6%	1.1%	30.4%	2.1%	1.1%	3.7%	47.6%
52			18	146	4	0.02	0.89	0.06	0.01	0.07	**1.51**		1.4%	58.8%	3.6%	0.4%	4.7%	100.0%	0.02	0.37	0.04	0.01	0.04	**0.73**	48.1%	1.2%	24.8%	2.4%	0.3%	2.8%	48.1%
53			19	147	4	0.02	1.06	0.02	0.00	0.07	**1.67**		1.0%	63.3%	1.3%	0.2%	4.1%	100.0%	0.02	0.43	0.01	0.00	0.04	**0.91**	54.6%	0.9%	25.8%	0.7%	0.2%	2.3%	54.6%
54			20	148	4	0.01	0.87	0.06	0.02	0.07	**1.45**		1.0%	60.3%	4.4%	1.6%	4.6%	100.0%	0.01	0.34	0.04	0.02	0.03	**0.72**	50.0%	0.7%	23.6%	2.7%	1.4%	2.2%	50.0%
55			24	152	10	0.03	2.66	0.53	0.01	0.19	**3.77**		0.9%	70.6%	13.9%	0.3%	4.9%	100.0%	0.03	1.21	0.32	0.01	0.08	**2.03**	53.9%	0.7%	32.0%	8.6%	0.2%	2.1%	53.9%
56			25	153	10	0.06	3.03	0.21	0.00	0.12	**3.87**		1.4%	78.2%	5.4%	0.1%	3.1%	100.0%	0.05	1.57	0.09	0.00	0.07	**2.33**	60.3%	1.2%	40.5%	2.4%	0.1%	1.9%	60.3%
57			26	154	10	0.05	2.46	0.05	0.01	0.26	**3.54**		1.4%	69.6%	1.3%	0.1%	7.2%	100.0%	0.04	1.34	0.03	0.00	0.14	**2.15**	60.7%	1.1%	37.9%	0.8%	0.1%	4.0%	60.7%
58			27	155	10	0.04	3.25	0.05	0.01	0.25	**4.21**		0.9%	77.2%	1.3%	0.1%	5.8%	100.0%	0.03	1.69	0.04	0.00	0.12	**2.64**	62.6%	0.8%	40.2%	0.9%	0.1%	2.9%	62.6%
59			28	156	10	0.04	3.57	0.06	0.08	0.38	**4.57**		1.0%	78.0%	1.4%	1.8%	8.4%	100.0%	0.03	1.49	0.04	0.07	0.16	**2.14**	46.8%	0.7%	32.5%	0.9%	1.6%	3.5%	46.8%
60			34	162	10	0.04	3.13	0.46	0.01	0.17	**4.05**		1.1%	77.2%	11.3%	0.2%	4.1%	100.0%	0.04	1.52	0.26	0.01	0.08	**2.34**	57.8%	0.9%	37.5%	6.3%	0.2%	1.9%	57.8%
61			35	163	10	0.07	2.46	0.05	0.01	0.22	**3.47**		1.9%	70.7%	1.5%	0.1%	6.4%	100.0%	0.06	1.38	0.04	0.00	0.14	**2.11**	60.8%	1.7%	39.6%	1.1%	0.1%	3.9%	60.8%
62			36	164	10	0.05	2.70	0.03	0.01	0.27	**3.60**		1.4%	75.0%	0.9%	0.3%	7.5%	100.0%	0.04	1.38	0.02	0.01	0.15	**2.26**	62.8%	1.2%	38.3%	0.5%	0.2%	4.3%	62.8%
63			37	165	10	0.04	3.42	0.05	0.02	0.23	**4.77**		0.8%	71.8%	1.0%	0.4%	4.8%	100.0%	0.03	1.66	0.04	0.02	0.10	**2.71**	56.7%	0.7%	34.7%	0.7%	0.4%	2.0%	56.7%

- ## M–patch High CH

													max ratio out of all beams												max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							3.7%	79.7%	15.3%	1.5%	15.6%	100.0%	4cm2 PD(mW/cm2) at 10mm evaluation distance						62.3%	3.3%	45.1%	9.4%	1.3%	7.8%	62.3%
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
1	M	Patch	0		1	0.01	0.15	0.01	0.00	0.04	**0.23**		2.6%	66.2%	2.6%	0.4%	15.6%	100.0%	0.01	0.08	0.01	0.00	0.02	**0.09**	39.0%	2.2%	35.1%	2.2%	0.4%	7.8%	39.0%
2			2		1	0.00	0.15	0.01	0.00	0.01	**0.32**		1.3%	48.4%	2.8%	0.3%	4.4%	100.0%	0.00	0.06	0.01	0.00	0.01	**0.16**	50.0%	1.3%	19.3%	2.2%	0.3%	2.2%	50.0%
3			4		1	0.01	0.16	0.01	0.00	0.01	**0.27**		2.3%	58.6%	3.4%	0.4%	5.3%	100.0%	0.01	0.07	0.01	0.00	0.01	**0.12**	45.9%	1.9%	24.4%	2.3%	0.4%	3.0%	45.9%
4			6		1	0.01	0.12	0.02	0.00	0.03	**0.22**		2.3%	54.1%	6.9%	0.5%	11.9%	100.0%	0.00	0.04	0.01	0.00	0.01	**0.10**	46.3%	1.8%	19.7%	4.1%	0.5%	5.0%	46.3%
5			8		1	0.01	0.16	0.02	0.00	0.03	**0.28**		2.2%	56.3%	6.1%	0.4%	9.0%	100.0%	0.01	0.07	0.01	0.00	0.01	**0.12**	44.0%	1.8%	25.3%	3.6%	0.4%	4.0%	44.0%
6			10		2	0.01	0.23	0.03	0.00	0.03	**0.47**		2.6%	49.0%	6.8%	0.4%	5.5%	100.0%	0.01	0.11	0.02	0.00	0.02	**0.20**	42.4%	2.1%	22.6%	4.9%	0.4%	3.4%	42.4%
7			11		2	0.02	0.39	0.02	0.00	0.04	**0.68**		2.2%	56.8%	3.2%	0.1%	5.6%	100.0%	0.01	0.17	0.01	0.00	0.02	**0.39**	57.8%	1.9%	25.4%	1.9%	0.1%	3.1%	57.8%
8			12		2	0.02	0.42	0.01	0.00	0.06	**0.64**		2.5%	64.7%	0.8%	0.2%	8.9%	100.0%	0.01	0.22	0.00	0.00	0.03	**0.30**	46.3%	1.9%	33.9%	0.5%	0.2%	4.7%	46.3%
9			13		2	0.02	0.35	0.01	0.00	0.06	**0.53**		2.8%	65.6%	1.5%	0.2%	11.3%	100.0%	0.01	0.20	0.01	0.00	0.03	**0.23**	43.7%	2.3%	37.2%	0.9%	0.2%	5.7%	43.7%
10			18		2	0.01	0.26	0.03	0.00	0.04	**0.53**		2.6%	49.6%	4.7%	0.4%	7.7%	100.0%	0.01	0.11	0.02	0.00	0.02	**0.26**	49.4%	2.3%	20.7%	3.6%	0.2%	3.9%	49.4%
11			19		2	0.01	0.44	0.01	0.00	0.04	**0.72**		1.7%	60.5%	1.4%	0.1%	5.0%	100.0%	0.01	0.19	0.01	0.00	0.02	**0.42**	58.0%	1.5%	26.8%	0.7%	0.1%	2.5%	58.0%
12			20		2	0.01	0.29	0.04	0.00	0.04	**0.45**		1.3%	65.1%	8.7%	0.9%	7.8%	100.0%	0.01	0.13	0.02	0.00	0.01	**0.23**	51.8%	1.1%	28.2%	5.3%	0.7%	3.1%	51.8%
13			24		5	0.02	0.66	0.16	0.00	0.09	**1.04**		1.8%	63.7%	15.2%	0.4%	8.6%	100.0%	0.02	0.30	0.10	0.00	0.04	**0.60**	57.4%	1.5%	28.5%	9.2%	0.4%	3.5%	57.4%
14			25		5	0.03	0.88	0.07	0.00	0.08	**1.52**		2.2%	58.1%	4.5%	0.2%	5.1%	100.0%	0.03	0.46	0.04	0.00	0.04	**0.88**	57.9%	1.8%	30.4%	2.6%	0.1%	2.7%	57.9%
15			26		5	0.04	0.87	0.03	0.00	0.10	**1.42**		2.6%	61.1%	2.0%	0.1%	7.2%	100.0%	0.03	0.46	0.02	0.00	0.05	**0.81**	57.1%	2.4%	32.6%	1.3%	0.1%	3.7%	57.1%
16			27		5	0.02	1.19	0.02	0.00	0.11	**1.51**		1.5%	78.3%	1.5%	0.1%	7.5%	100.0%	0.02	0.68	0.02	0.00	0.05	**0.94**	62.3%	1.1%	45.1%	1.1%	0.1%	3.1%	62.3%
17			28		5	0.01	1.02	0.04	0.01	0.09	**1.34**		1.0%	76.4%	2.8%	0.7%	7.0%	100.0%	0.01	0.55	0.02	0.01	0.04	**0.74**	55.4%	0.8%	41.1%	1.7%	0.6%	2.9%	55.4%
18			34		5	0.03	0.82	0.12	0.00	0.07	**1.37**		2.2%	60.1%	8.7%	0.3%	5.3%	100.0%	0.02	0.41	0.06	0.00	0.03	**0.77**	56.1%	1.8%	29.7%	4.7%	0.2%	2.3%	56.1%
19			35		5	0.05	0.79	0.03	0.00	0.11	**1.42**		3.7%	55.9%	2.1%	0.1%	7.8%	100.0%	0.05	0.43	0.02	0.00	0.06	**0.86**	60.6%	3.3%	30.6%	1.6%	0.1%	4.4%	60.6%
20			36		5	0.03	0.92	0.03	0.01	0.09	**1.35**		2.4%	68.1%	2.1%	0.4%	6.8%	100.0%	0.03	0.53	0.01	0.00	0.04	**0.82**	60.6%	2.3%	39.2%	1.0%	0.3%	3.3%	60.6%
21			37		5	0.01	1.23	0.02	0.00	0.09	**1.60**		0.8%	76.9%	1.5%	0.3%	5.8%	100.0%	0.01	0.69	0.02	0.00	0.04	**0.92**	57.3%	0.6%	43.0%	1.2%	0.3%	2.6%	57.3%
22			128		1	0.00	0.18	0.01	0.00	0.02	**0.36**		0.6%	49.9%	1.9%	0.8%	4.7%	100.0%	0.00	0.05	0.01	0.00	0.01	**0.16**	42.9%	0.3%	14.7%	1.7%	0.6%	2.2%	42.9%
23			130		1	0.00	0.21	0.01	0.00	0.01	**0.41**		0.5%	51.9%	2.0%	0.7%	2.2%	100.0%	0.00	0.07	0.01	0.00	0.01	**0.17**	41.0%	0.5%	17.3%	1.5%	0.7%	1.2%	41.0%
24			132		1	0.00	0.22	0.01	0.00	0.02	**0.38**		0.3%	58.4%	3.2%	0.5%	5.3%	100.0%	0.00	0.08	0.01	0.00	0.01	**0.16**	43.2%	0.3%	21.2%	2.4%	0.3%	2.7%	43.2%
25			134		1	0.00	0.23	0.01	0.00	0.01	**0.39**		0.3%	59.9%	2.6%	0.3%	2.3%	100.0%	0.00	0.10	0.01	0.00	0.00	**0.18**	45.0%	0.3%	24.4%	1.5%	0.3%	1.0%	45.0%
26			136		1	0.00	0.21	0.02	0.00	0.01	**0.33**		0.3%	62.0%	5.1%	0.3%	3.6%	100.0%	0.00	0.07	0.01	0.00	0.01	**0.15**	43.7%	0.3%	20.5%	3.3%	0.3%	1.8%	43.7%
27			138		2	0.01	0.40	0.02	0.01	0.02	**0.72**		0.7%	55.6%	3.2%	0.7%	2.5%	100.0%	0.00	0.16	0.02	0.00	0.01	**0.37**	51.2%	0.6%	22.1%	2.5%	0.6%	1.4%	51.2%
28			139		2	0.01	0.47	0.01	0.00	0.03	**0.85**		0.7%	55.1%	1.1%	0.1%	3.0%	100.0%	0.01	0.19	0.01	0.00	0.01	**0.46**	53.8%	0.6%	22.7%	0.7%	0.1%	1.5%	53.8%
29			140		2	0.00	0.57	0.00	0.00	0.03	**0.89**		0.2%	63.7%	0.4%	0.3%	2.8%	100.0%	0.00	0.25	0.00	0.00	0.01	**0.42**	47.6%	0.2%	27.9%	0.2%	0.3%	1.1%	47.6%
30			141		2	0.00	0.49	0.02	0.01	0.03	**0.74**		0.5%	66.3%	2.6%	1.5%	4.2%	100.0%	0.00	0.18	0.01	0.01	0.02	**0.36**	49.1%	0.4%	24.2%	1.9%	1.2%	2.0%	49.1%
31			146		2	0.01	0.43	0.02	0.00	0.02	**0.79**		0.8%	54.5%	2.1%	0.3%	2.5%	100.0%	0.01	0.18	0.01	0.00	0.01	**0.42**	52.5%	0.6%	22.3%	1.6%	0.3%	1.4%	52.5%
32			147		2	0.01	0.49	0.01	0.00	0.03	**0.86**		0.7%	56.4%	0.6%	0.1%	3.2%	100.0%	0.00	0.19	0.00	0.00	0.01	**0.47**	53.8%	0.5%	22.5%	0.3%	0.1%	1.5%	53.8%
33			148		2	0.00	0.52	0.01	0.01	0.03	**0.82**		0.5%	63.5%	1.5%	1.0%	3.6%	100.0%	0.00	0.20	0.01	0.01	0.01	**0.43**	51.8%	0.4%	24.2%	1.0%	0.8%	1.6%	51.8%
34			152		5	0.01	1.18	0.21	0.00	0.06	**1.95**		0.4%	60.5%	10.5%	0.2%	3.0%	100.0%	0.01	0.54	0.12	0.00	0.03	**1.05**	53.7%	0.4%	27.7%	6.2%	0.1%	1.3%	53.7%
35			153		5	0.01	1.47	0.08	0.00	0.04	**2.03**		0.4%	72.3%	3.8%	0.0%	1.8%	100.0%	0.01	0.76	0.03	0.00	0.01	**1.23**	60.6%	0.3%	37.5%	1.6%	0.0%	0.7%	60.6%
36			154		5	0.01	1.34	0.01	0.00	0.07	**1.95**		0.6%	69.0%	0.6%	0.1%	3.3%	100.0%	0.01	0.71	0.01	0.00	0.04	**1.13**	57.9%	0.5%	36.7%	0.3%	0.1%	1.9%	57.9%
37			155		5	0.01	1.49	0.02	0.00	0.09	**2.15**		0.4%	69.3%	0.8%	0.1%	4.4%	100.0%	0.01	0.76	0.01	0.00	0.05	**1.30**	60.1%	0.3%	35.2%	0.5%	0.1%	2.4%	60.1%
38			156		5	0.01	1.49	0.02	0.03	0.17	**2.20**		0.6%	67.8%	0.8%	1.5%	7.6%	100.0%	0.01	0.65	0.01	0.03	0.08	**0.99**	45.0%	0.5%	29.7%	0.5%	1.3%	3.6%	45.0%
39			162		5	0.01	1.43	0.18	0.00	0.06	**2.15**		0.4%	66.8%	8.2%	0.1%	2.7%	100.0%	0.01	0.70	0.10	0.00	0.03	**1.24**	57.7%	0.3%	32.5%	4.8%	0.0%	1.2%	57.7%
40			163		5	0.01	1.34	0.02	0.00	0.05	**1.89**		0.6%	70.8%	0.9%	0.1%	2.4%	100.0%	0.01	0.72	0.01	0.00	0.02	**1.13**	59.6%	0.5%	38.3%	0.5%	0.1%	1.2%	59.6%
41			164		5	0.01	1.40	0.01	0.00	0.09	**1.99**		0.4%	70.7%	0.5%	0.2%	4.6%	100.0%	0.01	0.74	0.01	0.00	0.05	**1.20**	60.3%	0.3%	37.3%	0.4%	0.2%	2.7%	60.3%
42			165		5	0.01	1.41	0.01	0.01	0.09	**2.27**		0.6%	62.0%	0.5%	0.3%	4.0%	100.0%	0.01	0.68	0.01	0.00	0.04	**1.25**	54.8%	0.5%	29.8%	0.3%	0.2%	1.9%	54.8%
43			0	128	2	0.01	0.43	0.02	0.01	0.08	**0.73**		1.4%	58.8%	2.3%	0.8%	11.1%	100.0%	0.01	0.18	0.01	0.01	0.04	**0.31**	41.6%	1.1%	23.9%	1.6%	0.7%	5.6%	41.6%
44			2	130	2	0.01	0.40	0.02	0.01	0.03	**0.77**		1.2%	51.8%	2.7%	0.9%	3.3%	100.0%	0.01	0.16	0.02	0.01	0.01	**0.33**	42.7%	0.9%	20.9%	2.0%	0.8%	1.4%	42.7%
45			4	132	2	0.01	0.39	0.03	0.00	0.04	**0.74**		1.2%	53.0%	4.5%	0.5%	6.0%	100.0%	0.01	0.16	0.02	0.00	0.02	**0.33**	44.0%	0.9%	21.2%	3.1%	0.4%	2.8%	44.0%
46			6	134	2	0.01	0.40	0.04	0.00	0.05	**0.65**		1.1%	61.1%	6.4%	0.6%	6.9%	100.0%	0.01	0.16	0.03	0.00	0.02	**0.31**	47.0%	0.9%	24.7%	4.3%	0.6%	2.9%	47.0%
47			8	136	2	0.01	0.40	0.05	0.00	0.04	**0.65**		1.2%	60.9%	8.3%	0.6%	6.8%	100.0%	0.01	0.16	0.03	0.00	0.02	**0.29**	45.0%	1.1%	25.1%	5.2%	0.5%	3.4%	45.0%
48			10	138	4	0.02	0.77	0.07	0.01	0.07	**1.35**		1.6%	57.4%	5.1%	0.9%	5.0%	100.0%	0.02	0.33	0.05	0.01	0.04	**0.61**	45.5%	1.3%	24.4%	3.6%	0.8%	3.2%	45.5%
49			11	139	4	0.02	0.94	0.04	0.00	0.08	**1.56**		1.5%	59.9%	2.8%	0.2%	4.9%	100.0%	0.02	0.40	0.03	0.00	0.05	**0.81**	52.0%	1.2%	25.4%	1.8%	0.1%	3.0%	52.0%
50			12	140	4	0.02	0.93	0.01	0.01	0.10	**1.39**		1.4%	66.5%	0.7%	0.4%	6.8%	100.0%	0.02	0.46	0.01	0.01	0.04	**0.70**	50.5%	1.2%	32.8%	0.5%	0.4%	3.1%	50.5%
51			13	141	4	0.02	1.18	0.04	0.02	0.12	**1.68**		1.4%	70.2%	2.4%	1.1%	7.1%	100.0%	0.02	0.52	0.03	0.02	0.06	**0.77**	45.6%	1.1%	31.2%	1.7%	1.0%	3.7%	45.6%
52			18	146	4	0.02	0.88	0.06	0.01	0.07	**1.47**		1.3%	59.5%	4.1%	0.5%	4.8%	100.0%	0.02	0.38	0.04	0.01	0.04	**0.71**	48.0%	1.1%	25.8%	2.7%	0.3%	2.7%	48.0%
53			19	147	4	0.02	1.05	0.02	0.00	0.07	**1.63**		1.2%	64.1%	1.3%	0.2%	4.3%	100.0%	0.02	0.42	0.01	0.00	0.04	**0.87**	53.3%	1.0%	25.9%	0.7%	0.2%	2.4%	53.3%
54			20	148	4	0.02	0.87	0.06	0.02	0.06	**1.38**		1.1%	62.8%	4.6%	1.5%	4.1%	100.0%	0.01	0.36	0.04	0.02	0.03	**0.69**	49.7%	0.8%	26.1%	2.9%	1.3%	2.0%	49.7%
55			24	152	10	0.04	2.59	0.55	0.01	0.18	**3.59**		1.0%	72.2%	15.3%	0.3%	5.1%	100.0%	0.03	1.16	0.34	0.01	0.08	**1.95**	54.3%	0.9%	32.4%	9.4%	0.3%	2.1%	54.3%
56			25	153	10	0.04	2.90	0.20	0.00	0.15	**3.72**		1.1%	77.8%	5.3%	0.1%	4.1%	100.0%	0.03	1.52	0.09	0.00	0.09	**2.19**	58.7%	0.9%	40.9%	2.4%	0.1%	2.4%	58.7%
57			26	154	10	0.06	2.32	0.06	0.01	0.21	**3.49**		1.7%	66.5%	1.6%	0.2%	6.1%	100.0%	0.05	1.22	0.03	0.01	0.12	**2.08**	59.6%	1.5%	34.9%	0.9%	0.1%	3.6%	59.6%
58			27	155	10	0.03	3.22	0.05	0.01	0.24	**4.04**		0.8%	79.7%	1.2%	0.2%	5.9%	100.0%	0.03	1.73	0.04	0.01	0.12	**2.51**	62.2%	0.6%	43.0%	0.9%	0.1%	3.0%	62.2%
59			28	156	10	0.04	3.48	0.07	0.07	0.37	**4.39**		0.8%	79.2%	1.6%	1.5%	8.4%	100.0%	0.03	1.50	0.04	0.06	0.16	**2.12**	48.4%	0.6%	34.2%	0.9%	1.3%	3.7%	48.4%
60			34	162	10	0.04	3.02	0.44	0.01	0.16	**3.86**		1.0%	78.1%	11.5%	0.2%	4.2%	100.0%	0.03	1.47	0.26	0.01	0.07	**2.21**	57.3%	0.8%	38.1%	6.7%	0.2%	1.8%	57.3%
61			35	163	10	0.07	2.32	0.06	0.00	0.22	**3.38**		2.0%	68.7%	1.7%	0.1%	6.4%	100.0%	0.06	1.32	0.04	0.00	0.14	**2.08**	61.6%	1.7%	39.1%	1.1%	0.1%	4.0%	61.6%
62			36	164	10	0.05	2.62	0.04	0.01	0.22	**3.52**		1.5%	74.6%	1.0%	0.3%	6.3%	100.0%	0.04	1.37	0.02	0.01	0.14	**2.16**	61.5%	1.3%	39.0%	0.6%	0.3%	3.9%	61.5%
63			37	165	10	0.04	3.45	0.04	0.02	0.22	**4.61**		0.8%	75.0%	1.0%	0.3%	4.8%	100.0%	0.03	1.75	0.03	0.01	0.10	**2.64**	57.4%	0.5%	37.9%	0.7%	0.3%	2.1%	57.4%

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

- M–patch Low CH

													max ratio out of all beams													max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							4.1%	97.0%	22.7%	2.3%	24.9%	100.0%	4cm2 PD(mW/cm2) at 10mm evaluation distance						66.3%	3.1%	56.6%	15.1%	2.0%	13.3%	66.3%
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
1	M	Patch	0		1	0.00	0.08	0.01	0.00	0.01	0.19		2.1%	40.7%	4.8%	1.1%	5.3%	100.0%	0.00	0.03	0.01	0.00	0.01	0.06	33.9%	1.6%	18.0%	3.7%	0.5%	2.6%	33.9%
2			2		1	0.00	0.07	0.01	0.00	0.01	0.14		2.1%	52.1%	3.5%	0.7%	6.3%	100.0%	0.00	0.03	0.00	0.00	0.00	0.06	39.4%	1.4%	20.4%	2.8%	0.7%	2.8%	39.4%
3			4		1	0.00	0.06	0.01	0.00	0.01	0.15		2.0%	38.1%	6.8%	0.7%	4.8%	100.0%	0.00	0.02	0.01	0.00	0.00	0.06	38.1%	2.0%	13.6%	4.8%	0.7%	2.0%	38.1%
4			6		1	0.00	0.08	0.02	0.00	0.01	0.18		1.7%	43.6%	11.0%	0.6%	7.7%	100.0%	0.00	0.03	0.01	0.00	0.01	0.07	38.7%	1.1%	16.6%	6.6%	0.6%	3.9%	38.7%
5			8		1	0.00	0.07	0.02	0.00	0.01	0.19		2.1%	36.4%	10.2%	0.5%	7.5%	100.0%	0.00	0.02	0.01	0.00	0.01	0.07	37.4%	1.6%	12.8%	7.0%	0.5%	3.7%	37.4%
6			10		2	0.01	0.15	0.02	0.00	0.02	0.31		2.9%	48.2%	7.2%	1.3%	7.8%	100.0%	0.01	0.06	0.02	0.00	0.01	0.12	37.8%	2.6%	19.2%	4.9%	1.0%	3.3%	37.8%
7			11		2	0.01	0.12	0.01	0.00	0.01	0.26		1.9%	46.1%	3.5%	0.4%	3.9%	100.0%	0.00	0.06	0.01	0.00	0.01	0.15	57.8%	1.6%	21.3%	1.9%	0.4%	2.3%	57.8%
8			12		2	0.01	0.12	0.04	0.00	0.02	0.28		2.5%	41.5%	15.5%	0.7%	5.3%	100.0%	0.01	0.04	0.03	0.00	0.01	0.12	40.5%	2.1%	13.4%	9.9%	0.7%	2.8%	40.5%
9			13		2	0.01	0.16	0.02	0.01	0.02	0.37		1.9%	42.6%	5.7%	1.4%	4.9%	100.0%	0.01	0.06	0.02	0.00	0.01	0.11	29.0%	1.6%	16.1%	4.6%	1.1%	2.7%	29.0%
10			18		2	0.01	0.15	0.03	0.00	0.03	0.35		1.4%	43.6%	8.8%	0.6%	7.1%	100.0%	0.01	0.07	0.02	0.00	0.01	0.18	49.9%	1.4%	18.5%	6.0%	0.6%	3.1%	49.9%
11			19		2	0.01	0.13	0.03	0.00	0.03	0.30		2.7%	44.0%	10.7%	0.0%	9.4%	100.0%	0.01	0.06	0.01	0.00	0.02	0.15	50.0%	2.0%	20.5%	4.7%	0.0%	5.7%	50.0%
12			20		2	0.01	0.14	0.05	0.00	0.02	0.32		1.9%	43.0%	15.2%	0.9%	5.4%	100.0%	0.01	0.05	0.03	0.00	0.01	0.11	33.9%	1.6%	16.1%	9.8%	0.6%	2.8%	33.9%
13			24		5	0.02	0.45	0.12	0.02	0.05	0.85		2.5%	53.0%	14.7%	1.8%	6.4%	100.0%	0.02	0.23	0.08	0.01	0.03	0.42	49.5%	2.0%	26.7%	9.9%	1.5%	3.1%	49.5%
14			25		5	0.01	0.35	0.02	0.01	0.06	0.64		1.6%	54.3%	2.8%	0.8%	8.9%	100.0%	0.01	0.18	0.01	0.00	0.03	0.39	60.5%	1.4%	27.8%	1.9%	0.6%	3.9%	60.5%
15			26		5	0.03	0.32	0.02	0.00	0.04	0.65		3.9%	49.9%	3.4%	0.3%	6.5%	100.0%	0.02	0.16	0.01	0.00	0.02	0.33	51.5%	2.9%	24.2%	2.0%	0.2%	2.9%	51.5%
16			27		5	0.02	0.21	0.11	0.00	0.04	0.52		3.9%	41.0%	22.1%	0.8%	7.2%	100.0%	0.02	0.10	0.07	0.00	0.02	0.23	44.5%	2.9%	19.7%	13.3%	0.8%	3.1%	44.5%
17			28		5	0.02	0.35	0.15	0.01	0.04	0.88		2.2%	39.1%	17.0%	0.7%	4.5%	100.0%	0.02	0.14	0.10	0.01	0.02	0.29	32.4%	1.8%	15.6%	11.1%	0.6%	2.2%	32.4%
18			34		5	0.02	0.37	0.06	0.01	0.05	0.76		2.4%	48.5%	7.9%	1.0%	6.7%	100.0%	0.02	0.17	0.03	0.01	0.02	0.42	54.7%	2.1%	22.0%	3.9%	1.0%	3.0%	54.7%
19			35		5	0.02	0.30	0.02	0.00	0.04	0.67		3.1%	44.1%	2.7%	0.4%	6.4%	100.0%	0.02	0.14	0.01	0.00	0.02	0.41	61.0%	2.4%	21.1%	1.6%	0.3%	3.3%	61.0%
20			36		5	0.02	0.28	0.06	0.00	0.04	0.58		4.1%	48.7%	10.0%	0.3%	6.9%	100.0%	0.02	0.15	0.04	0.00	0.02	0.29	50.8%	3.1%	25.2%	6.9%	0.3%	2.8%	50.8%
21			37		5	0.02	0.28	0.16	0.00	0.04	0.72		2.6%	39.3%	22.7%	0.4%	5.0%	100.0%	0.02	0.13	0.11	0.00	0.02	0.29	40.4%	2.4%	18.3%	15.1%	0.4%	2.1%	40.4%
22			128		1	0.00	0.20	0.00	0.00	0.03	0.20		1.5%	97.0%	2.0%	0.5%	12.3%	100.0%	0.00	0.09	0.00	0.00	0.01	0.08	42.9%	1.0%	42.9%	1.5%	0.5%	5.9%	41.4%
23			130		1	0.00	0.13	0.00	0.00	0.02	0.19		1.6%	71.0%	2.2%	0.5%	12.4%	100.0%	0.00	0.07	0.00	0.00	0.01	0.06	37.1%	1.1%	37.1%	1.6%	0.5%	6.5%	32.8%
24			132		1	0.00	0.07	0.01	0.00	0.01	0.17		2.3%	38.6%	4.1%	0.6%	6.4%	100.0%	0.00	0.03	0.01	0.00	0.01	0.09	50.9%	1.8%	15.2%	2.9%	0.6%	2.9%	50.9%
25			134		1	0.00	0.15	0.01	0.00	0.03	0.17		1.2%	87.4%	7.2%	0.6%	17.4%	100.0%	0.00	0.06	0.01	0.00	0.02	0.06	35.3%	1.2%	35.3%	4.2%	0.6%	10.2%	32.9%
26			136		1	0.00	0.14	0.01	0.00	0.03	0.16		1.9%	92.3%	6.4%	0.6%	20.5%	100.0%	0.00	0.07	0.01	0.00	0.02	0.05	42.3%	1.9%	42.3%	4.5%	0.6%	12.2%	34.6%
27			138		2	0.01	0.32	0.01	0.00	0.04	0.41		1.5%	76.6%	2.4%	0.7%	10.2%	100.0%	0.01	0.13	0.01	0.00	0.02	0.13	30.7%	1.2%	30.7%	1.9%	0.7%	5.4%	30.7%
28			139		2	0.01	0.24	0.01	0.00	0.06	0.33		1.5%	71.7%	4.2%	0.3%	17.5%	100.0%	0.00	0.15	0.01	0.00	0.03	0.14	44.9%	1.2%	44.9%	2.4%	0.0%	9.9%	41.6%
29			140		2	0.01	0.23	0.02	0.00	0.04	0.38		1.3%	62.1%	4.2%	0.5%	11.1%	100.0%	0.01	0.14	0.01	0.00	0.02	0.16	43.5%	1.3%	36.3%	2.9%	0.5%	5.3%	43.5%
30			141		2	0.01	0.23	0.02	0.00	0.04	0.33		1.5%	69.0%	6.1%	1.2%	10.9%	100.0%	0.00	0.12	0.01	0.00	0.02	0.11	35.0%	1.2%	35.0%	4.3%	0.9%	5.2%	32.2%
31			146		2	0.01	0.21	0.01	0.00	0.02	0.35		2.0%	59.7%	3.1%	0.9%	6.6%	100.0%	0.01	0.09	0.01	0.00	0.01	0.14	40.9%	1.7%	25.1%	2.3%	0.9%	3.1%	40.9%
32			147		2	0.01	0.18	0.01	0.00	0.04	0.35		1.7%	49.7%	2.8%	0.3%	10.5%	100.0%	0.01	0.09	0.01	0.00	0.02	0.20	57.6%	1.4%	25.4%	1.7%	0.0%	4.8%	57.6%
33			148		2	0.01	0.21	0.03	0.00	0.04	0.31		2.2%	66.3%	9.3%	0.6%	13.1%	100.0%	0.01	0.08	0.02	0.00	0.02	0.14	45.5%	1.9%	25.6%	5.4%	0.6%	7.1%	45.5%
34			152		5	0.02	0.50	0.08	0.01	0.11	0.58		2.9%	86.5%	13.2%	1.4%	19.2%	100.0%	0.02	0.26	0.04	0.01	0.05	0.22	45.4%	2.6%	45.4%	7.6%	1.2%	8.7%	38.8%
35			153		5	0.01	0.40	0.02	0.00	0.09	0.63		1.4%	63.0%	2.4%	0.5%	13.7%	100.0%	0.01	0.23	0.01	0.00	0.05	0.34	53.6%	1.3%	35.5%	1.7%	0.5%	7.9%	53.6%
36			154		5	0.02	0.59	0.02	0.00	0.12	0.93		1.8%	63.9%	1.6%	0.1%	12.9%	100.0%	0.01	0.36	0.01	0.00	0.07	0.47	50.9%	1.3%	39.3%	0.9%	0.1%	7.5%	50.9%
37			155		5	0.01	0.84	0.03	0.00	0.22	0.89		1.4%	94.3%	3.3%	0.1%	24.9%	100.0%	0.01	0.50	0.02	0.00	0.12	0.35	56.6%	1.1%	56.6%	2.0%	0.1%	13.3%	39.1%
38			156		5	0.01	0.68	0.07	0.01	0.10	0.79		1.5%	86.5%	8.6%	1.8%	12.5%	100.0%	0.01	0.34	0.05	0.01	0.04	0.32	42.9%	1.3%	42.9%	5.9%	1.5%	5.4%	39.8%
39			162		5	0.01	0.47	0.03	0.00	0.11	0.65		2.0%	73.3%	4.7%	0.6%	17.2%	100.0%	0.01	0.27	0.02	0.00	0.06	0.30	46.5%	1.7%	42.2%	2.8%	0.5%	9.1%	46.5%
40			163		5	0.02	0.40	0.02	0.00	0.08	0.73		2.3%	54.0%	2.2%	0.4%	10.9%	100.0%	0.02	0.23	0.01	0.00	0.05	0.41	56.5%	2.2%	32.0%	1.5%	0.4%	6.2%	56.5%
41			164		5	0.01	0.62	0.02	0.00	0.14	0.84		1.2%	74.1%	2.7%	0.1%	16.5%	100.0%	0.01	0.37	0.01	0.00	0.08	0.39	46.2%	1.1%	43.7%	1.6%	0.1%	9.5%	46.2%
42			165		5	0.01	0.81	0.03	0.00	0.17	0.91		1.1%	88.8%	3.6%	0.2%	18.9%	100.0%	0.01	0.46	0.02	0.00	0.09	0.37	50.2%	1.0%	50.2%	2.3%	0.2%	9.3%	40.4%
43			0	128	2	0.01	0.33	0.02	0.00	0.05	0.44		1.4%	74.8%	3.4%	0.7%	10.9%	100.0%	0.01	0.16	0.01	0.00	0.02	0.16	37.2%	1.1%	37.2%	2.9%	0.7%	5.4%	37.2%
44			2	130	2	0.01	0.26	0.02	0.01	0.04	0.37		2.4%	69.4%	4.1%	1.4%	11.7%	100.0%	0.01	0.13	0.01	0.00	0.02	0.16	43.9%	2.2%	35.5%	2.4%	1.1%	5.7%	43.9%
45			4	132	2	0.01	0.15	0.03	0.00	0.02	0.40		2.5%	36.5%	6.5%	0.8%	5.8%	100.0%	0.01	0.07	0.02	0.00	0.01	0.19	47.4%	2.0%	17.1%	4.3%	0.5%	3.0%	47.4%
46			6	134	2	0.01	0.31	0.05	0.00	0.07	0.39		1.6%	80.3%	11.7%	0.5%	17.7%	100.0%	0.01	0.13	0.03	0.00	0.04	0.16	41.8%	1.6%	34.5%	7.3%	0.5%	9.6%	41.8%
47			8	136	2	0.01	0.28	0.05	0.00	0.05	0.40		3.3%	70.0%	12.3%	0.8%	12.0%	100.0%	0.01	0.11	0.04	0.00	0.02	0.16	40.0%	2.5%	28.5%	9.0%	0.8%	6.0%	40.0%
48			10	138	4	0.02	0.57	0.05	0.01	0.07	0.74		2.4%	76.6%	6.2%	1.8%	9.3%	100.0%	0.02	0.22	0.03	0.01	0.03	0.32	43.4%	2.0%	29.2%	4.5%	1.5%	4.3%	43.4%
49			11	139	4	0.01	0.37	0.03	0.00	0.08	0.66		2.0%	56.9%	4.7%	0.5%	12.5%	100.0%	0.01	0.21	0.02	0.00	0.05	0.36	55.0%	1.5%	32.2%	2.9%	0.5%	7.2%	55.0%
50			12	140	4	0.02	0.36	0.07	0.01	0.05	0.80		1.9%	44.6%	8.7%	0.7%	6.6%	100.0%	0.01	0.20	0.04	0.01	0.03	0.42	51.9%	1.5%	24.7%	5.2%	0.7%	3.1%	51.9%
51			13	141	4	0.02	0.44	0.05	0.02	0.07	0.71		2.3%	62.3%	6.8%	2.3%	10.2%	100.0%	0.01	0.19	0.04	0.01	0.03	0.23	31.9%	1.8%	26.9%	5.1%	2.0%	4.2%	31.9%
52			18	146	4	0.02	0.40	0.06	0.01	0.06	0.70		2.3%	56.6%	8.0%	1.4%	8.5%	100.0%	0.01	0.20	0.04	0.01	0.03	0.33	47.3%	1.9%	27.9%	5.3%	1.3%	3.7%	47.3%
53			19	147	4	0.01	0.32	0.05	0.00	0.09	0.82		1.7%	38.4%	6.6%	0.1%	10.7%	100.0%	0.01	0.15	0.03	0.00	0.05	0.50	61.0%	1.3%	18.0%	3.2%	0.1%	6.5%	61.0%
54			20	148	4	0.02	0.45	0.13	0.01	0.10	0.84		2.4%	53.2%	14.8%	0.8%	11.3%	100.0%	0.02	0.20	0.08	0.01	0.05	0.42	50.1%	1.9%	23.3%	9.3%	0.7%	6.2%	50.1%
55			24	152	10	0.06	1.26	0.25	0.03	0.25	1.78		3.5%	71.1%	14.0%	1.8%	14.2%	100.0%	0.05	0.68	0.16	0.03	0.11	0.91	50.9%	3.0%	38.2%	8.8%	1.6%	6.4%	50.9%
56			25	153	10	0.03	1.00	0.05	0.01	0.21	1.76		1.7%	56.6%	2.7%	0.8%	12.2%	100.0%	0.02	0.60	0.04	0.01	0.11	1.15	65.5%	1.4%	34.1%	2.0%	0.6%	6.1%	65.5%
57			26	154	10	0.06	1.07	0.06	0.00	0.22	1.99		3.1%	54.0%	2.9%	0.2%	11.1%	100.0%	0.05	0.60	0.03	0.00	0.13	1.08	54.3%	2.4%	30.2%	1.6%	0.2%	6.4%	54.3%
58			27	155	10	0.04	1.20	0.21	0.01	0.27	1.80		2.3%	66.6%	11.6%	0.4%	15.1%	100.0%	0.04	0.67	0.12	0.01	0.15	0.92	51.2%	2.0%	37.4%	6.8%	0.3%	8.3%	51.2%
59			28	156	10	0.04	1.29	0.31	0.03	0.18	1.92		1.9%	67.2%	16.3%	1.4%	9.3%	100.0%	0.03	0.55	0.22	0.02	0.08	0.94	48.9%	1.6%	28.3%	11.5%	1.1%	4.3%	48.9%
60			34	162	10	0.05	1.20	0.14	0.02	0.22	1.94		2.5%	61.8%	7.4%	1.0%	11.4%	100.0%	0.04	0.68	0.07	0.02	0.11	1.14	58.8%	2.1%	34.8%	3.7%	0.9%	5.6%	58.8%
61			35	163	10	0.05	0.83	0.04	0.01	0.18	1.68		3.2%	49.1%	2.6%	0.5%	10.8%	100.0%	0.04	0.47	0.03	0.01	0.09	1.11	66.3%	2.4%	27.8%	1.8%	0.5%	5.5%	66.3%
62			36	164	10	0.05	1.11	0.12	0.00	0.25	1.97		2.5%	56.2%	6.1%	0.2%	12.5%	100.0%	0.04	0.64	0.07	0.00	0.13	1.05	53.2%	1.9%	32.3%	3.4%	0.2%	6.8%	53.2%
63			37	165	10	0.04	1.54	0.29	0.01	0.26	1.94		2.2%	79.2%	14.7%	0.5%	13.4%	100.0%	0.04	0.80	0.20	0.01	0.13	1.00	51.6%	1.9%	41.3%	10.1%	0.4%	6.5%	51.6%

- M–patch Mid CH

													max ratio out of all beams													max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							4.8%	90.6%	17.9%	1.9%	19.4%	100.0%	4cm2 PD(mW/cm2) at 10mm evaluation distance						65.5%	4.0%	44.7%	12.4%	1.8%	9.4%	65.5%
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
1	M	Patch	0		1	0.00	0.11	0.01	0.00	0.01	0.24		1.7%	46.9%	3.3%	0.4%	5.8%	100.0%	0.00	0.05	0.01	0.00	0.01	0.08	34.4%	1.2%	19.5%	2.9%	0.4%	2.5%	34.4%
2			2		1	0.01	0.09	0.01	0.00	0.01	0.22		2.3%	43.5%	4.2%	0.5%	4.2%	100.0%	0.00	0.04	0.01	0.00	0.00	0.07	30.6%	1.9%	20.4%	2.8%	0.5%	1.9%	30.6%
3			4		1	0.00	0.07	0.02	0.00	0.01	0.22		1.8%	32.1%	7.1%	0.4%	5.4%	100.0%	0.00	0.03	0.01	0.00	0.01	0.08	33.9%	1.8%	15.2%	4.0%	0.4%	2.2%	33.9%
4			6		1	0.00	0.10	0.02	0.00	0.02	0.23		1.3%	45.2%	7.0%	0.4%	7.8%	100.0%	0.00	0.04	0.01	0.00	0.01	0.08	33.9%	1.3%	16.5%	4.8%	0.4%	3.9%	33.9%
5			8		1	0.01	0.10	0.03	0.00	0.01	0.28		1.8%	37.8%	9.5%	0.4%	3.6%	100.0%	0.00	0.03	0.02	0.00	0.01	0.09	33.8%	1.5%	12.0%	6.5%	0.4%	1.8%	33.8%
6			10		2	0.01	0.16	0.04	0.01	0.03	0.47		1.5%	33.4%	8.9%	1.1%	5.7%	100.0%	0.01	0.06	0.03	0.00	0.01	0.18	38.1%	1.3%	13.1%	5.3%	0.8%	1.9%	38.1%
7			11		2	0.01	0.18	0.01	0.00	0.02	0.37		2.4%	48.9%	2.4%	0.5%	6.4%	100.0%	0.01	0.10	0.01	0.00	0.01	0.17	45.5%	1.9%	27.0%	1.9%	0.3%	3.2%	45.5%
8			12		2	0.01	0.16	0.04	0.00	0.02	0.41		2.0%	40.0%	9.8%	0.2%	5.9%	100.0%	0.01	0.07	0.03	0.00	0.01	0.16	40.2%	1.7%	16.7%	6.6%	0.2%	2.5%	40.2%
9			13		2	0.01	0.19	0.03	0.00	0.02	0.51		1.6%	38.0%	5.3%	0.4%	3.1%	100.0%	0.01	0.07	0.02	0.00	0.01	0.13	24.7%	1.4%	13.1%	4.3%	0.4%	1.4%	24.7%
10			18		2	0.01	0.19	0.03	0.00	0.04	0.48		1.2%	39.9%	6.9%	0.6%	7.3%	100.0%	0.01	0.09	0.02	0.00	0.02	0.22	44.9%	1.0%	18.5%	4.6%	0.6%	3.7%	44.9%
11			19		2	0.01	0.16	0.03	0.00	0.02	0.41		2.2%	39.7%	8.3%	0.2%	4.6%	100.0%	0.01	0.08	0.02	0.00	0.01	0.21	51.8%	1.7%	18.5%	4.4%	0.0%	2.4%	51.8%
12			20		2	0.01	0.17	0.05	0.00	0.03	0.46		1.3%	35.9%	10.2%	0.4%	5.8%	100.0%	0.01	0.06	0.03	0.00	0.01	0.16	33.9%	1.1%	12.7%	6.7%	0.4%	2.8%	33.9%
13			24		5	0.02	0.45	0.15	0.01	0.08	1.06		2.0%	42.3%	14.2%	1.0%	7.5%	100.0%	0.02	0.23	0.09	0.01	0.04	0.53	50.1%	1.5%	22.0%	8.7%	1.0%	4.0%	50.1%
14			25		5	0.02	0.46	0.03	0.01	0.11	0.87		2.6%	53.3%	3.3%	0.6%	12.3%	100.0%	0.02	0.25	0.02	0.01	0.05	0.49	55.8%	1.8%	28.7%	2.3%	0.6%	6.1%	55.8%
15			26		5	0.04	0.40	0.03	0.00	0.04	0.87		4.5%	45.8%	3.6%	0.1%	4.4%	100.0%	0.03	0.23	0.02	0.00	0.02	0.43	49.4%	3.6%	26.1%	2.6%	0.1%	2.3%	49.4%
16			27		5	0.02	0.40	0.13	0.00	0.04	0.80		2.4%	50.1%	15.8%	0.3%	5.3%	100.0%	0.02	0.21	0.10	0.00	0.02	0.41	51.3%	1.9%	26.4%	12.4%	0.3%	2.0%	51.3%
17			28		5	0.02	0.45	0.18	0.01	0.05	1.19		1.5%	37.7%	14.9%	0.5%	3.8%	100.0%	0.01	0.18	0.12	0.01	0.02	0.42	35.2%	1.0%	14.9%	9.8%	0.4%	1.4%	35.2%
18			34		5	0.02	0.44	0.08	0.01	0.11	0.94		2.0%	46.4%	8.4%	0.9%	11.7%	100.0%	0.02	0.20	0.04	0.01	0.06	0.53	56.1%	1.7%	21.5%	4.5%	0.9%	6.0%	56.1%
19			35		5	0.04	0.48	0.02	0.00	0.07	0.97		3.7%	49.3%	1.9%	0.4%	6.9%	100.0%	0.03	0.26	0.01	0.00	0.04	0.53	54.6%	3.0%	26.9%	1.2%	0.4%	3.9%	54.6%
20			36		5	0.03	0.35	0.07	0.00	0.04	0.71		4.8%	48.9%	10.3%	0.1%	5.1%	100.0%	0.03	0.20	0.05	0.00	0.02	0.34	47.5%	4.0%	28.5%	7.4%	0.1%	2.5%	47.5%
21			37		5	0.02	0.41	0.14	0.00	0.04	1.03		1.8%	40.0%	13.1%	0.3%	3.5%	100.0%	0.02	0.21	0.10	0.00	0.02	0.45	43.6%	1.6%	20.2%	9.3%	0.3%	1.5%	43.6%
22			128		1	0.00	0.19	0.01	0.00	0.03	0.22		0.9%	89.4%	2.3%	0.5%	14.3%	100.0%	0.00	0.08	0.00	0.00	0.01	0.08	38.7%	0.5%	38.7%	1.8%	0.5%	6.5%	35.0%
23			130		1	0.00	0.12	0.01	0.00	0.02	0.19		1.0%	60.8%	3.6%	1.0%	12.4%	100.0%	0.00	0.05	0.01	0.00	0.01	0.08	41.2%	1.0%	25.3%	2.6%	0.5%	4.6%	41.2%
24			132		1	0.00	0.09	0.01	0.00	0.01	0.22		1.4%	41.9%	4.1%	0.5%	5.0%	100.0%	0.00	0.03	0.01	0.00	0.01	0.10	46.4%	0.9%	13.1%	2.7%	0.5%	2.3%	46.4%
25			134		1	0.00	0.11	0.01	0.00	0.02	0.21		0.9%	52.4%	3.8%	0.5%	10.4%	100.0%	0.00	0.04	0.01	0.00	0.01	0.08	36.3%	0.5%	20.8%	2.8%	0.5%	5.2%	36.3%
26			136		1	0.00	0.15	0.01	0.00	0.03	0.20		1.5%	73.9%	5.0%	0.5%	15.1%	100.0%	0.00	0.07	0.01	0.00	0.02	0.07	36.7%	1.5%	34.7%	3.5%	0.5%	7.5%	36.7%
27			138		2	0.00	0.36	0.01	0.00	0.06	0.40		1.0%	90.6%	3.3%	1.0%	13.9%	100.0%	0.00	0.13	0.01	0.00	0.03	0.11	31.6%	1.0%	31.6%	2.3%	0.8%	6.6%	27.1%
28			139		2	0.00	0.20	0.01	0.00	0.05	0.41		1.0%	49.8%	3.0%	0.2%	11.1%	100.0%	0.00	0.11	0.01	0.00	0.02	0.21	51.7%	1.0%	27.6%	2.0%	0.2%	5.2%	51.7%
29			140		2	0.01	0.20	0.02	0.00	0.03	0.43		1.2%	47.1%	5.5%	0.7%	7.9%	100.0%	0.00	0.10	0.02	0.00	0.02	0.23	53.8%	0.9%	22.2%	3.5%	0.7%	3.7%	53.8%
30			141		2	0.00	0.23	0.03	0.00	0.04	0.40		1.0%	58.0%	6.8%	1.0%	9.8%	100.0%	0.00	0.12	0.02	0.00	0.02	0.14	36.0%	1.0%	28.8%	4.3%	1.0%	4.3%	36.0%
31			146		2	0.01	0.25	0.01	0.00	0.05	0.39		1.3%	64.5%	2.6%	1.0%	11.6%	100.0%	0.00	0.12	0.01	0.00	0.02	0.16	40.4%	1.0%	31.4%	2.1%	1.0%	5.9%	40.4%
32			147		2	0.00	0.18	0.01	0.00	0.04	0.41		1.0%	45.3%	3.0%	0.2%	8.9%	100.0%	0.00	0.09	0.01	0.00	0.02	0.24	57.9%	0.7%	21.9%	2.0%	0.2%	4.9%	57.9%
33			148		2	0.00	0.24	0.03	0.00	0.04	0.47		0.9%	50.5%	5.8%	0.6%	7.7%	100.0%	0.00	0.11	0.02	0.00	0.02	0.21	43.9%	0.6%	24.1%	3.8%	0.6%	3.2%	43.9%
34			152		5	0.01	0.55	0.07	0.01	0.14	0.71		1.4%	77.1%	9.5%	1.7%	19.4%	100.0%	0.01	0.32	0.03	0.01	0.06	0.30	44.7%	1.1%	44.7%	4.8%	1.5%	7.7%	41.5%
35			153		5	0.01	0.55	0.02	0.00	0.11	0.88		1.2%	62.7%	2.2%	0.5%	12.3%	100.0%	0.01	0.33	0.01	0.00	0.05	0.43	48.9%	1.0%	36.9%	1.1%	0.5%	6.1%	48.9%
36			154		5	0.02	0.50	0.02	0.00	0.10	0.97		1.7%	51.2%	1.7%	0.2%	10.1%	100.0%	0.01	0.29	0.01	0.00	0.05	0.59	60.2%	1.3%	29.6%	1.0%	0.1%	5.5%	60.2%
37			155		5	0.01	0.67	0.03	0.00	0.18	1.04		1.2%	64.9%	2.5%	0.2%	16.9%	100.0%	0.01	0.36	0.02	0.00	0.10	0.54	51.8%	0.8%	35.0%	1.4%	0.1%	9.4%	51.8%
38			156		5	0.02	0.84	0.08	0.01	0.15	0.97		1.5%	87.0%	8.6%	0.8%	15.4%	100.0%	0.01	0.42	0.06	0.01	0.08	0.35	43.8%	1.4%	43.8%	6.2%	0.7%	7.9%	35.6%
39			162		5	0.01	0.66	0.04	0.01	0.13	0.92		1.1%	71.9%	4.0%	0.9%	14.2%	100.0%	0.01	0.39	0.01	0.01	0.05	0.41	44.3%	1.0%	42.3%	1.1%	0.7%	5.3%	44.3%
40			163		5	0.01	0.32	0.02	0.00	0.07	0.83		1.7%	38.0%	2.0%	0.5%	8.7%	100.0%	0.01	0.15	0.01	0.00	0.04	0.54	65.5%	1.2%	18.1%	1.2%	0.4%	4.9%	65.5%
41			164		5	0.02	0.63	0.02	0.00	0.15	0.97		1.8%	65.1%	2.3%	0.2%	15.9%	100.0%	0.01	0.36	0.02	0.00	0.09	0.53	54.6%	1.1%	37.3%	1.8%	0.2%	9.4%	54.6%
42			165		5	0.01	0.70	0.05	0.00	0.17	1.03		1.2%	67.5%	5.0%	0.2%	16.0%	100.0%	0.01	0.39	0.03	0.00	0.09	0.49	48.0%	1.0%	37.6%	3.1%	0.2%	8.8%	48.0%
43			0	128	2	0.01	0.39	0.02	0.00	0.07	0.54		1.3%	72.3%	3.5%	0.6%	13.5%	100.0%	0.01	0.18	0.01	0.00	0.03	0.19	35.9%	0.9%	33.8%	2.6%	0.6%	6.1%	35.9%
44			2	130	2	0.01	0.23	0.02	0.01	0.04	0.49		2.3%	47.8%	4.9%	1.0%	8.8%	100.0%	0.01	0.11	0.02	0.00	0.02	0.18	36.1%	1.8%	22.6%	3.5%	0.8%	3.5%	36.1%
45			4	132	2	0.01	0.18	0.04	0.00	0.04	0.52		1.5%	35.1%	7.5%	0.6%	7.1%	100.0%	0.01	0.09	0.03	0.00	0.02	0.23	43.6%	1.4%	17.4%	4.8%	0.6%	2.9%	43.6%
46			6	134	2	0.01	0.27	0.03	0.00	0.05	0.53		1.1%	50.6%	6.4%	0.4%	9.8%	100.0%	0.00	0.10	0.02	0.00	0.03	0.21	40.2%	0.8%	19.7%	4.4%	0.4%	5.1%	40.2%
47			8	136	2	0.01	0.31	0.05	0.00	0.04	0.55		1.5%	57.1%	9.1%	0.5%	7.6%	100.0%	0.01	0.11	0.03	0.00	0.02	0.21	38.9%	1.1%	19.1%	6.0%	0.5%	3.8%	38.9%
48			10	138	4	0.02	0.63	0.08	0.02	0.10	0.88		2.1%	71.3%	9.5%	1.7%	11.5%	100.0%	0.01	0.24	0.06	0.01	0.04	0.33	37.3%	1.6%	27.6%	6.7%	1.5%	4.8%	37.3%
49			11	139	4	0.02	0.42	0.03	0.00	0.07	0.92		1.9%	45.6%	3.2%	0.4%	8.0%	100.0%	0.01	0.24	0.02	0.00	0.03	0.47	51.1%	1.4%	25.7%	2.3%	0.3%	3.6%	51.1%
50			12	140	4	0.02	0.43	0.11	0.01	0.05	1.00		1.6%	42.6%	10.5%	0.7%	5.4%	100.0%	0.02	0.18	0.07	0.01	0.03	0.54	53.7%	1.5%	18.2%	6.9%	0.6%	3.0%	53.7%
51			13	141	4	0.02	0.48	0.08	0.01	0.06	1.00		1.7%	48.5%	7.8%	1.0%	6.3%	100.0%	0.02	0.22	0.05	0.01	0.03	0.29	29.0%	1.5%	21.7%	5.4%	1.0%	2.9%	29.0%
52			18	146	4	0.01	0.47	0.07	0.01	0.10	0.83		1.4%	56.5%	8.0%	1.3%	11.4%	100.0%	0.01	0.25	0.05	0.01	0.04	0.37	43.9%	1.3%	30.4%	5.4%	1.2%	5.2%	43.9%
53			19	147	4	0.02	0.45	0.05	0.00	0.06	0.99		1.8%	45.1%	5.4%	0.2%	6.5%	100.0%	0.01	0.20	0.03	0.00	0.04	0.60	60.2%	1.4%	20.2%	3.2%	0.1%	3.8%	60.2%
54			20	148	4	0.01	0.49	0.12	0.01	0.09	1.20		1.0%	40.6%	9.8%	0.6%	7.3%	100.0%	0.01	0.20	0.08	0.01	0.05	0.57	47.7%	0.9%	16.6%	6.7%	0.5%	3.8%	47.7%
55			24	152	10	0.04	1.50	0.27	0.04	0.33	2.06		1.7%	73.0%	13.0%	1.9%	16.2%	100.0%	0.03	0.83	0.18	0.04	0.17	1.00	48.5%	1.3%	40.2%	8.5%	1.8%	8.2%	48.5%
56			25	153	10	0.04	1.38	0.05	0.02	0.35	2.16		2.0%	64.0%	2.5%	0.7%	16.0%	100.0%	0.03	0.87	0.04	0.01	0.17	1.29	59.7%	1.4%	40.5%	1.7%	0.6%	7.7%	59.7%
57			26	154	10	0.08	1.08	0.07	0.00	0.19	2.43		3.4%	44.5%	2.9%	0.2%	7.7%	100.0%	0.06	0.59	0.05	0.00	0.10	1.36	55.9%	2.6%	24.4%	2.2%	0.2%	4.2%	55.9%
58			27	155	10	0.05	1.13	0.21	0.01	0.27	2.30		2.0%	49.0%	8.9%	0.3%	11.6%	100.0%	0.04	0.59	0.16	0.01	0.12	1.30	56.6%	1.5%	25.6%	6.9%	0.2%	5.3%	56.6%
59			28	156	10	0.05	1.41	0.46	0.02	0.23	2.58		1.7%	54.6%	17.9%	0.9%	8.9%	100.0%	0.04	0.68	0.30	0.02	0.12	1.16	44.9%	1.4%	26.2%	11.5%	0.7%	4.6%	44.9%
60			34	162	10	0.04	1.54	0.13	0.03	0.38	2.11		1.8%	73.1%	6.2%	1.3%	18.2%	100.0%	0.03	0.92	0.06	0.02	0.18	1.16	55.1%	1.5%	43.5%	3.0%	1.1%	8.4%	55.1%
61			35	163	10	0.06	0.93	0.05	0.01	0.22	2.09		3.0%	44.5%	2.2%	0.6%	10.5%	100.0%	0.05	0.54	0.03	0.01	0.13	1.36	64.8%	2.4%	25.9%	1.5%	0.6%	6.1%	64.8%
62			36	164	10	0.08	1.18	0.14	0.00	0.26	2.40		3.4%	49.3%	5.7%	0.1%	10.7%	100.0%	0.06	0.66	0.10	0.00	0.14	1.32	54.9%	2.5%	27.7%	4.0%	0.1%	5.8%	54.9%
63			37	165	10	0.04	1.25	0.30	0.01	0.26	2.46		1.8%	50.9%	12.4%	0.4%	10.4%	100.0%	0.03	0.65	0.21	0.01	0.13	1.35	54.7%	1.3%	26.3%	8.5%	0.3%	5.3%	54.7%

- M–patch High CH

													max ratio out of all beams												**max ratio out of all beams**						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							**3.8%**	**67.5%**	**14.8%**	**1.3%**	**21.7%**	**100.0%**	4cm2 PD(mW/cm2) at 10mm evaluation distance						**63.3%**	**2.9%**	**42.3%**	**9.6%**	**1.2%**	**12.3%**	**63.3%**
						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)	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)
1	M	Patch	0		1	0.00	0.13	0.01	0.00	0.02	**0.28**		1.1%	48.6%	1.8%	0.4%	6.5%	100.0%	0.00	0.05	0.00	0.00	0.01	**0.10**	37.0%	1.1%	18.1%	1.4%	0.4%	3.3%	37.0%
2			2		1	0.00	0.11	0.01	0.00	0.01	**0.26**		1.5%	40.4%	2.3%	0.4%	4.6%	100.0%	0.00	0.05	0.01	0.00	0.01	**0.09**	34.6%	1.5%	18.8%	1.9%	0.4%	2.3%	34.6%
3			4		1	0.00	0.08	0.02	0.00	0.02	**0.28**		1.1%	29.3%	5.4%	0.4%	6.5%	100.0%	0.00	0.04	0.01	0.00	0.01	**0.11**	40.2%	0.7%	13.4%	4.0%	0.4%	2.5%	40.2%
4			6		1	0.00	0.11	0.01	0.00	0.03	**0.27**		1.1%	41.9%	5.3%	0.4%	10.2%	100.0%	0.00	0.05	0.01	0.00	0.02	**0.09**	35.5%	0.8%	17.4%	3.8%	0.4%	5.7%	35.5%
5			8		1	0.00	0.13	0.02	0.00	0.02	**0.29**		1.0%	45.7%	6.1%	0.3%	5.1%	100.0%	0.00	0.05	0.01	0.00	0.01	**0.12**	40.3%	1.0%	17.1%	3.8%	0.3%	2.0%	40.3%
6			10		2	0.01	0.18	0.03	0.00	0.03	**0.56**		1.1%	31.4%	6.1%	0.7%	5.2%	100.0%	0.01	0.07	0.03	0.00	0.01	**0.19**	33.0%	0.9%	12.5%	4.6%	0.5%	2.3%	33.0%
7			11		2	0.01	0.19	0.01	0.00	0.04	**0.43**		1.4%	44.3%	1.2%	0.2%	9.3%	100.0%	0.01	0.12	0.00	0.00	0.02	**0.24**	55.9%	1.2%	28.1%	0.7%	0.2%	3.9%	55.9%
8			12		2	0.01	0.17	0.04	0.00	0.03	**0.53**		1.5%	31.6%	7.0%	0.2%	5.3%	100.0%	0.01	0.09	0.02	0.00	0.01	**0.24**	44.4%	1.1%	16.1%	4.3%	0.2%	2.3%	44.4%
9			13		2	0.01	0.23	0.02	0.00	0.02	**0.59**		1.4%	38.6%	2.9%	0.3%	3.9%	100.0%	0.01	0.09	0.01	0.00	0.01	**0.15**	24.6%	1.2%	15.1%	2.4%	0.3%	1.5%	24.6%
10			18		2	0.01	0.20	0.03	0.00	0.06	**0.53**		0.9%	37.8%	5.1%	0.4%	10.3%	100.0%	0.00	0.11	0.02	0.00	0.03	**0.23**	43.8%	0.7%	19.7%	3.6%	0.4%	5.6%	43.8%
11			19		2	0.01	0.20	0.02	0.00	0.03	**0.50**		1.8%	40.4%	4.8%	0.2%	5.4%	100.0%	0.01	0.12	0.02	0.00	0.01	**0.27**	53.6%	1.4%	24.4%	3.6%	0.0%	2.6%	53.6%
12			20		2	0.01	0.17	0.05	0.00	0.03	**0.57**		1.4%	29.8%	8.4%	0.3%	4.9%	100.0%	0.01	0.08	0.03	0.00	0.01	**0.22**	38.2%	1.0%	13.3%	5.2%	0.2%	2.4%	38.2%
13			24		5	0.02	0.48	0.12	0.01	0.09	**1.13**		1.4%	42.2%	10.7%	1.0%	7.9%	100.0%	0.01	0.23	0.08	0.01	0.05	**0.53**	46.9%	1.2%	20.7%	6.7%	0.9%	4.3%	46.9%
14			25		5	0.03	0.55	0.03	0.01	0.15	**1.01**		2.9%	54.2%	2.8%	0.5%	14.9%	100.0%	0.02	0.33	0.01	0.00	0.09	**0.56**	55.7%	2.2%	32.4%	1.4%	0.4%	8.4%	55.7%
15			26		5	0.03	0.43	0.02	0.00	0.07	**0.96**		3.3%	44.6%	2.0%	0.2%	7.0%	100.0%	0.02	0.28	0.01	0.00	0.04	**0.51**	53.5%	2.5%	28.6%	1.3%	0.2%	4.0%	53.5%
16			27		5	0.04	0.46	0.08	0.00	0.07	**1.11**		3.3%	41.3%	7.5%	0.3%	6.1%	100.0%	0.03	0.28	0.05	0.00	0.03	**0.59**	53.4%	2.4%	25.3%	4.9%	0.2%	3.1%	53.4%
17			28		5	0.02	0.46	0.17	0.01	0.06	**1.21**		1.5%	38.2%	14.0%	0.5%	4.5%	100.0%	0.01	0.23	0.12	0.01	0.02	**0.51**	41.7%	1.1%	18.9%	9.6%	0.4%	1.9%	41.7%
18			34		5	0.02	0.52	0.07	0.01	0.16	**1.01**		2.4%	51.7%	7.3%	0.8%	15.8%	100.0%	0.02	0.28	0.04	0.01	0.09	**0.54**	53.1%	1.8%	27.3%	3.6%	0.7%	9.1%	53.1%
19			35		5	0.03	0.51	0.02	0.00	0.08	**1.05**		2.8%	48.9%	1.8%	0.3%	8.0%	100.0%	0.02	0.34	0.01	0.00	0.04	**0.57**	54.1%	2.2%	32.2%	1.2%	0.3%	4.1%	54.1%
20			36		5	0.04	0.38	0.04	0.00	0.05	**0.95**		3.8%	40.1%	3.9%	0.2%	5.7%	100.0%	0.03	0.22	0.03	0.00	0.03	**0.52**	54.1%	2.9%	23.5%	2.7%	0.1%	2.8%	54.1%
21			37		5	0.02	0.46	0.14	0.00	0.05	**1.14**		1.8%	40.4%	12.3%	0.4%	4.2%	100.0%	0.02	0.25	0.09	0.00	0.02	**0.56**	48.8%	1.4%	21.7%	7.7%	0.3%	1.8%	48.8%
22			128		1	0.00	0.12	0.01	0.00	0.02	**0.22**		0.9%	55.3%	2.3%	0.5%	8.3%	100.0%	0.00	0.04	0.00	0.00	0.01	**0.10**	46.1%	0.9%	18.4%	1.8%	0.5%	4.1%	46.1%
23			130		1	0.00	0.11	0.01	0.00	0.01	**0.20**		1.0%	54.8%	3.0%	0.5%	6.1%	100.0%	0.00	0.04	0.00	0.00	0.01	**0.07**	37.6%	1.0%	17.8%	2.0%	0.5%	3.0%	37.6%
24			132		1	0.00	0.09	0.01	0.00	0.01	**0.24**		0.8%	36.0%	4.6%	0.4%	4.2%	100.0%	0.00	0.03	0.01	0.00	0.00	**0.11**	45.2%	0.8%	11.3%	2.9%	0.4%	1.7%	45.2%
25			134		1	0.00	0.10	0.02	0.00	0.02	**0.22**		0.9%	45.8%	7.9%	0.5%	6.9%	100.0%	0.00	0.04	0.01	0.00	0.01	**0.07**	33.8%	0.9%	18.1%	4.2%	0.5%	3.2%	33.8%
26			136		1	0.00	0.08	0.01	0.00	0.02	**0.18**		1.6%	45.9%	7.7%	0.5%	9.8%	100.0%	0.00	0.04	0.01	0.00	0.01	**0.08**	41.5%	1.6%	19.1%	4.9%	0.0%	4.4%	41.5%
27			138		2	0.01	0.27	0.02	0.00	0.04	**0.46**		1.1%	58.4%	3.5%	0.9%	8.3%	100.0%	0.00	0.10	0.01	0.00	0.02	**0.13**	29.1%	0.9%	21.2%	2.4%	0.7%	4.8%	29.1%
28			139		2	0.00	0.14	0.02	0.00	0.04	**0.30**		1.3%	47.5%	6.7%	0.3%	12.5%	100.0%	0.00	0.07	0.01	0.00	0.02	**0.16**	54.5%	1.3%	22.9%	3.4%	0.3%	6.4%	54.5%
29			140		2	0.00	0.17	0.02	0.00	0.02	**0.45**		0.9%	37.6%	5.1%	0.2%	4.5%	100.0%	0.00	0.07	0.02	0.00	0.01	**0.23**	50.8%	0.7%	15.0%	3.4%	0.2%	2.0%	50.8%
30			141		2	0.00	0.21	0.03	0.00	0.03	**0.48**		0.8%	44.8%	6.1%	0.6%	6.7%	100.0%	0.00	0.09	0.02	0.00	0.01	**0.17**	36.0%	0.6%	17.8%	4.0%	0.6%	2.7%	36.0%
31			146		2	0.00	0.22	0.01	0.00	0.03	**0.42**		1.0%	53.1%	3.1%	1.0%	6.7%	100.0%	0.00	0.10	0.01	0.00	0.02	**0.17**	41.0%	1.0%	23.8%	1.9%	0.7%	3.6%	41.0%
32			147		2	0.00	0.19	0.02	0.00	0.02	**0.40**		0.8%	48.5%	5.3%	0.3%	5.0%	100.0%	0.00	0.08	0.02	0.00	0.01	**0.23**	58.0%	0.5%	21.0%	4.0%	0.3%	3.0%	58.0%
33			148		2	0.00	0.20	0.04	0.00	0.03	**0.49**		0.8%	39.9%	7.9%	0.4%	5.7%	100.0%	0.00	0.08	0.03	0.00	0.01	**0.22**	44.9%	0.6%	16.6%	5.5%	0.4%	2.8%	44.9%
34			152		5	0.01	0.45	0.06	0.01	0.11	**0.77**		1.6%	57.5%	7.1%	1.2%	14.5%	100.0%	0.01	0.25	0.03	0.01	0.06	**0.38**	49.4%	1.3%	32.0%	4.1%	1.2%	8.0%	49.4%
35			153		5	0.01	0.50	0.02	0.01	0.08	**0.86**		1.6%	58.3%	2.3%	0.7%	9.0%	100.0%	0.01	0.30	0.01	0.01	0.04	**0.46**	52.7%	1.3%	34.2%	1.3%	0.6%	4.6%	52.7%
36			154		5	0.01	0.32	0.02	0.00	0.05	**0.68**		1.8%	47.4%	2.8%	0.4%	7.4%	100.0%	0.01	0.16	0.01	0.00	0.03	**0.41**	59.6%	1.5%	24.0%	1.9%	0.4%	4.6%	59.6%
37			155		5	0.01	0.44	0.07	0.00	0.05	**0.95**		1.3%	45.9%	7.7%	0.1%	5.5%	100.0%	0.01	0.18	0.06	0.00	0.03	**0.60**	63.3%	0.8%	19.2%	6.1%	0.1%	3.3%	63.3%
38			156		5	0.01	0.68	0.12	0.01	0.11	**1.14**		0.9%	59.6%	10.2%	0.4%	9.6%	100.0%	0.01	0.32	0.08	0.00	0.05	**0.49**	42.6%	0.7%	28.3%	6.6%	0.4%	4.7%	42.6%
39			162		5	0.01	0.46	0.04	0.01	0.10	**0.83**		1.3%	55.5%	4.7%	1.0%	12.3%	100.0%	0.01	0.25	0.02	0.01	0.05	**0.43**	51.8%	1.1%	30.2%	2.5%	0.8%	6.5%	51.8%
40			163		5	0.01	0.38	0.03	0.00	0.06	**0.70**		1.4%	54.3%	3.8%	0.3%	8.5%	100.0%	0.01	0.19	0.01	0.00	0.03	**0.43**	60.8%	1.1%	26.8%	1.9%	0.3%	4.3%	60.8%
41			164		5	0.02	0.42	0.02	0.00	0.07	**0.90**		1.7%	46.2%	2.3%	0.2%	8.0%	100.0%	0.01	0.21	0.01	0.00	0.04	**0.57**	62.9%	1.2%	23.3%	1.6%	0.2%	4.9%	62.9%
42			165		5	0.01	0.50	0.11	0.00	0.07	**0.95**		1.1%	52.4%	11.7%	0.2%	7.6%	100.0%	0.01	0.24	0.08	0.00	0.04	**0.53**	55.6%	0.7%	24.8%	8.7%	0.1%	4.5%	55.6%
43			0	128	2	0.01	0.30	0.02	0.00	0.05	**0.56**		1.1%	53.9%	3.1%	0.7%	9.0%	100.0%	0.01	0.11	0.01	0.00	0.02	**0.23**	41.4%	0.9%	19.6%	2.3%	0.7%	4.3%	41.4%
44			2	130	2	0.01	0.25	0.02	0.01	0.03	**0.54**		1.9%	46.7%	3.5%	0.9%	6.3%	100.0%	0.01	0.12	0.01	0.00	0.02	**0.17**	31.1%	1.5%	21.3%	2.6%	0.7%	3.0%	31.1%
45			4	132	2	0.01	0.18	0.04	0.00	0.03	**0.58**		1.0%	30.0%	7.2%	0.5%	5.8%	100.0%	0.00	0.08	0.03	0.00	0.02	**0.25**	43.6%	0.7%	12.9%	5.0%	0.3%	2.6%	43.6%
46			6	134	2	0.01	0.27	0.05	0.00	0.06	**0.57**		0.9%	46.2%	8.4%	0.3%	11.0%	100.0%	0.00	0.11	0.03	0.00	0.04	**0.21**	36.4%	0.7%	19.0%	5.6%	0.3%	6.3%	36.4%
47			8	136	2	0.01	0.32	0.05	0.00	0.05	**0.60**		1.3%	53.1%	8.8%	0.3%	7.5%	100.0%	0.01	0.11	0.04	0.00	0.02	**0.25**	42.4%	1.0%	18.9%	5.8%	0.3%	3.3%	42.4%
48			10	138	4	0.01	0.55	0.07	0.01	0.10	**1.16**		1.2%	47.5%	6.4%	1.0%	8.6%	100.0%	0.01	0.26	0.06	0.01	0.05	**0.39**	33.7%	0.9%	22.7%	5.1%	0.9%	4.1%	33.7%
49			11	139	4	0.02	0.38	0.04	0.00	0.10	**0.79**		1.9%	47.7%	4.5%	0.3%	13.0%	100.0%	0.01	0.23	0.02	0.00	0.04	**0.44**	54.8%	1.5%	28.8%	2.3%	0.3%	4.9%	54.8%
50			12	140	4	0.02	0.39	0.10	0.00	0.05	**1.14**		1.6%	33.9%	8.9%	0.4%	4.8%	100.0%	0.01	0.18	0.06	0.00	0.03	**0.58**	51.2%	1.1%	15.4%	5.5%	0.4%	2.6%	51.2%
51			13	141	4	0.01	0.50	0.07	0.01	0.08	**1.15**		1.2%	43.0%	6.2%	0.7%	6.6%	100.0%	0.01	0.22	0.05	0.01	0.03	**0.38**	32.9%	1.0%	18.8%	4.6%	0.6%	2.7%	32.9%
52			18	146	4	0.01	0.42	0.05	0.01	0.12	**0.87**		1.4%	47.6%	6.2%	0.9%	13.6%	100.0%	0.01	0.23	0.04	0.01	0.07	**0.40**	45.2%	1.1%	26.8%	4.5%	0.8%	7.8%	45.2%
53			19	147	4	0.01	0.44	0.08	0.00	0.06	**1.07**		1.3%	41.4%	7.1%	0.1%	5.9%	100.0%	0.01	0.22	0.06	0.00	0.03	**0.61**	57.7%	1.0%	20.8%	5.7%	0.1%	2.7%	57.7%
54			20	148	4	0.02	0.45	0.15	0.01	0.08	**1.38**		1.2%	33.0%	10.7%	0.4%	6.0%	100.0%	0.01	0.20	0.10	0.01	0.05	**0.68**	49.4%	0.9%	14.7%	6.9%	0.4%	3.3%	49.4%
55			24	152	10	0.04	1.48	0.25	0.03	0.38	**2.29**		1.7%	64.7%	11.0%	1.3%	16.5%	100.0%	0.03	0.85	0.15	0.03	0.21	**1.21**	52.8%	1.4%	37.0%	6.7%	1.2%	9.2%	52.8%
56			25	153	10	0.05	1.48	0.07	0.02	0.40	**2.20**		2.3%	67.5%	3.0%	0.7%	18.1%	100.0%	0.04	0.93	0.03	0.01	0.21	**1.20**	54.8%	1.8%	42.3%	1.5%	0.6%	9.7%	54.8%
57			26	154	10	0.07	0.81	0.06	0.01	0.15	**1.98**		3.4%	40.9%	2.8%	0.3%	7.6%	100.0%	0.05	0.48	0.03	0.01	0.09	**1.16**	58.9%	2.6%	24.2%	1.7%	0.3%	4.7%	58.9%
58			27	155	10	0.08	1.13	0.28	0.01	0.16	**2.75**		2.8%	41.3%	10.1%	0.2%	5.7%	100.0%	0.06	0.56	0.21	0.01	0.09	**1.62**	58.8%	2.0%	20.5%	7.7%	0.2%	3.2%	58.8%
59			28	156	10	0.04	1.40	0.48	0.02	0.27	**3.35**		1.2%	41.8%	14.3%	0.5%	8.1%	100.0%	0.03	0.68	0.31	0.01	0.13	**1.61**	48.0%	1.0%	20.4%	9.2%	0.4%	3.9%	48.0%
60			34	162	10	0.05	1.50	0.16	0.02	0.48	**2.23**		2.1%	67.4%	7.3%	1.1%	21.7%	100.0%	0.04	0.86	0.09	0.02	0.27	**1.20**	54.1%	1.6%	38.6%	3.8%	1.0%	12.3%	54.1%
61			35	163	10	0.05	1.11	0.05	0.01	0.22	**2.08**		2.4%	53.5%	2.6%	0.4%	10.7%	100.0%	0.04	0.68	0.03	0.01	0.11	**1.21**	58.2%	1.8%	32.5%	1.5%	0.3%	5.4%	58.2%
62			36	164	10	0.09	0.98	0.09	0.00	0.17	**2.54**		3.4%	38.5%	3.5%	0.2%	6.6%	100.0%	0.07	0.51	0.06	0.00	0.10	**1.51**	59.3%	2.7%	20.2%	2.4%	0.2%	3.9%	59.3%
63			37	165	10	0.05	1.22	0.43	0.01	0.18	**2.93**		1.6%	41.7%	14.8%	0.3%	6.0%	100.0%	0.04	0.59	0.28	0.01	0.10	**1.63**	55.6%	1.2%	20.2%	9.5%	0.2%	3.3%	55.6%

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

- M–patch Low CH

													max ratio out of all beams													max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							5.6%	74.5%	24.4%	2.0%	32.2%	100.0%	4cm2 PD(mW/cm2) at 10mm evaluation distance						59.0%	4.5%	36.2%	16.7%	1.9%	16.3%	59.0%
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
1	M	Patch	0		1	0.01	0.16	0.01	0.00	0.07	0.21		2.9%	74.5%	3.8%	0.5%	32.2%	100.0%	0.01	0.07	0.01	0.00	0.03	0.08	37.0%	2.4%	31.3%	2.4%	0.5%	16.3%	37.0%
2			2		1	0.01	0.12	0.01	0.00	0.01	0.24		2.9%	49.0%	3.8%	0.4%	5.9%	100.0%	0.01	0.05	0.01	0.00	0.01	0.11	46.0%	2.1%	18.8%	2.5%	0.4%	2.5%	46.0%
3			4		1	0.01	0.09	0.01	0.00	0.01	0.24		2.9%	36.1%	3.8%	0.4%	5.9%	100.0%	0.01	0.04	0.01	0.00	0.01	0.10	42.4%	2.5%	15.1%	2.1%	0.4%	2.5%	42.4%
4			6		1	0.01	0.06	0.02	0.00	0.02	0.29		2.1%	20.6%	5.8%	0.7%	5.2%	100.0%	0.01	0.03	0.01	0.00	0.01	0.10	34.4%	1.7%	8.9%	3.8%	0.3%	2.4%	34.4%
5			8		1	0.01	0.13	0.02	0.00	0.01	0.28		2.9%	45.7%	6.2%	0.4%	4.0%	100.0%	0.01	0.04	0.01	0.00	0.01	0.12	42.8%	2.2%	14.9%	3.6%	0.4%	1.8%	42.8%
6			10		2	0.01	0.16	0.03	0.00	0.04	0.30		3.3%	53.0%	8.7%	1.0%	13.7%	100.0%	0.01	0.06	0.01	0.00	0.02	0.13	44.0%	2.3%	21.3%	4.7%	1.0%	6.0%	44.0%
7			11		2	0.01	0.21	0.02	0.00	0.05	0.42		2.9%	49.9%	5.7%	0.5%	12.9%	100.0%	0.01	0.08	0.02	0.00	0.02	0.20	48.7%	2.4%	19.8%	3.6%	0.5%	5.7%	48.7%
8			12		2	0.01	0.22	0.01	0.00	0.02	0.53		2.1%	40.6%	0.9%	0.6%	3.4%	100.0%	0.01	0.09	0.00	0.00	0.01	0.28	52.3%	1.7%	17.3%	0.6%	0.6%	1.5%	52.3%
9			13		2	0.02	0.36	0.01	0.00	0.11	0.49		3.5%	73.9%	1.4%	0.6%	21.6%	100.0%	0.02	0.17	0.01	0.00	0.06	0.21	42.2%	3.1%	34.7%	1.0%	0.6%	11.4%	42.2%
10			18		2	0.01	0.24	0.05	0.00	0.03	0.53		2.3%	44.5%	9.4%	0.4%	5.8%	100.0%	0.01	0.10	0.03	0.00	0.01	0.25	47.5%	1.9%	18.3%	6.4%	0.4%	2.6%	47.5%
11			19		2	0.01	0.28	0.02	0.00	0.05	0.52		2.5%	54.2%	3.7%	0.2%	9.5%	100.0%	0.01	0.11	0.01	0.00	0.02	0.24	46.8%	1.9%	20.6%	2.7%	0.2%	4.5%	46.8%
12			20		2	0.01	0.26	0.01	0.00	0.02	0.61		2.1%	43.5%	1.8%	0.2%	3.3%	100.0%	0.01	0.11	0.01	0.00	0.01	0.30	48.6%	1.6%	18.8%	1.3%	0.2%	1.6%	48.6%
13			24		5	0.02	0.22	0.11	0.01	0.17	0.60		3.0%	35.9%	18.7%	1.8%	28.9%	100.0%	0.02	0.08	0.07	0.01	0.08	0.25	41.7%	2.7%	13.9%	12.2%	1.7%	13.5%	41.7%
14			25		5	0.05	0.65	0.13	0.00	0.08	1.36		3.4%	48.1%	9.4%	0.2%	5.6%	100.0%	0.04	0.30	0.07	0.00	0.03	0.69	50.6%	2.9%	22.2%	5.4%	0.2%	2.5%	50.6%
15			26		5	0.06	0.54	0.03	0.00	0.06	1.37		4.5%	39.5%	2.3%	0.1%	4.1%	100.0%	0.05	0.26	0.02	0.00	0.03	0.78	57.1%	3.9%	18.7%	1.6%	0.1%	1.9%	57.1%
16			27		5	0.05	0.65	0.01	0.00	0.05	1.41		3.8%	46.0%	0.5%	0.1%	3.8%	100.0%	0.05	0.32	0.00	0.00	0.03	0.77	54.3%	3.4%	22.8%	0.3%	0.1%	1.8%	54.3%
17			28		5	0.03	0.95	0.03	0.01	0.12	1.49		2.3%	63.6%	1.9%	0.7%	8.1%	100.0%	0.03	0.51	0.02	0.01	0.07	0.76	50.9%	1.8%	34.1%	1.2%	0.5%	4.6%	50.9%
18			34		5	0.02	0.32	0.14	0.01	0.12	0.83		2.3%	39.2%	16.4%	0.7%	15.0%	100.0%	0.02	0.11	0.09	0.01	0.06	0.39	46.7%	1.9%	13.7%	11.0%	0.7%	7.3%	46.7%
19			35		5	0.07	0.62	0.06	0.00	0.07	1.26		5.6%	49.5%	4.6%	0.3%	5.5%	100.0%	0.06	0.31	0.05	0.00	0.03	0.74	58.4%	4.5%	24.3%	3.7%	0.2%	2.6%	58.4%
20			36		5	0.05	0.54	0.03	0.00	0.05	1.38		3.8%	39.1%	2.0%	0.1%	3.6%	100.0%	0.04	0.26	0.02	0.00	0.03	0.73	53.3%	3.2%	19.1%	1.2%	0.1%	2.0%	53.3%
21			37		5	0.05	0.82	0.02	0.01	0.08	1.50		3.3%	54.8%	1.1%	0.5%	5.4%	100.0%	0.04	0.42	0.01	0.01	0.04	0.79	52.6%	2.7%	28.0%	0.8%	0.4%	2.8%	52.6%
22			128		1	0.00	0.16	0.01	0.00	0.03	0.32		0.6%	49.5%	3.5%	0.3%	10.2%	100.0%	0.00	0.05	0.01	0.00	0.02	0.12	39.4%	0.6%	15.6%	2.5%	0.3%	4.8%	39.4%
23			130		1	0.00	0.14	0.01	0.00	0.02	0.32		0.6%	43.9%	3.7%	0.9%	4.7%	100.0%	0.00	0.04	0.01	0.00	0.01	0.12	37.4%	0.3%	12.8%	2.8%	0.9%	1.9%	37.4%
24			132		1	0.00	0.19	0.03	0.00	0.02	0.31		1.0%	60.2%	8.1%	1.0%	7.1%	100.0%	0.00	0.07	0.02	0.00	0.01	0.10	33.3%	0.6%	21.4%	6.1%	0.6%	2.9%	33.3%
25			134		1	0.01	0.21	0.03	0.00	0.03	0.29		1.7%	72.2%	11.1%	0.3%	9.4%	100.0%	0.00	0.08	0.02	0.00	0.01	0.10	33.7%	1.4%	26.0%	7.3%	0.3%	4.2%	33.7%
26			136		1	0.00	0.15	0.02	0.00	0.01	0.26		0.8%	60.0%	9.4%	0.4%	4.7%	100.0%	0.00	0.04	0.02	0.00	0.01	0.09	36.5%	0.8%	16.1%	6.7%	0.4%	2.0%	36.5%
27			138		2	0.00	0.28	0.06	0.01	0.03	0.45		0.9%	62.7%	13.7%	1.8%	6.5%	100.0%	0.00	0.08	0.04	0.01	0.02	0.15	34.6%	0.9%	17.1%	9.9%	1.8%	3.6%	34.6%
28			139		2	0.00	0.41	0.03	0.00	0.05	0.68		0.6%	59.9%	4.4%	0.1%	7.1%	100.0%	0.00	0.13	0.02	0.00	0.02	0.34	49.6%	0.4%	19.0%	3.4%	0.1%	3.1%	49.6%
29			140		2	0.01	0.42	0.01	0.00	0.04	0.76		0.7%	55.1%	1.8%	0.4%	4.9%	100.0%	0.01	0.15	0.01	0.00	0.02	0.33	43.1%	0.7%	20.2%	1.2%	0.4%	2.5%	43.1%
30			141		2	0.01	0.36	0.02	0.01	0.04	0.71		1.0%	50.8%	2.4%	1.0%	5.8%	100.0%	0.01	0.13	0.01	0.01	0.02	0.34	48.0%	0.7%	18.8%	1.7%	1.0%	2.5%	48.0%
31			146		2	0.01	0.38	0.11	0.00	0.03	0.63		0.9%	59.4%	17.1%	0.5%	5.4%	100.0%	0.01	0.12	0.08	0.00	0.02	0.24	38.5%	0.8%	19.4%	12.2%	0.3%	2.5%	38.5%
32			147		2	0.00	0.40	0.01	0.00	0.05	0.68		0.3%	59.5%	2.1%	0.1%	6.6%	100.0%	0.00	0.14	0.01	0.00	0.02	0.35	51.4%	0.3%	20.7%	1.6%	0.1%	3.0%	51.4%
33			148		2	0.01	0.53	0.01	0.01	0.07	0.73		1.1%	72.1%	1.5%	0.8%	8.9%	100.0%	0.01	0.21	0.01	0.01	0.03	0.30	40.3%	0.8%	28.8%	1.0%	0.8%	3.6%	40.3%
34			152		5	0.01	1.05	0.38	0.00	0.14	1.56		0.8%	67.3%	24.4%	0.2%	8.9%	100.0%	0.01	0.30	0.26	0.00	0.05	0.63	40.5%	0.6%	19.4%	16.7%	0.2%	3.5%	40.5%
35			153		5	0.01	1.00	0.15	0.00	0.06	1.58		0.9%	63.6%	9.4%	0.1%	4.0%	100.0%	0.01	0.47	0.09	0.00	0.04	0.88	55.8%	0.6%	29.6%	5.5%	0.1%	2.2%	55.8%
36			154		5	0.02	1.07	0.01	0.00	0.15	1.47		1.4%	72.8%	1.0%	0.1%	10.1%	100.0%	0.02	0.51	0.01	0.00	0.08	0.82	55.9%	1.1%	34.9%	0.6%	0.1%	5.3%	55.9%
37			155		5	0.02	1.19	0.02	0.00	0.13	1.73		1.0%	68.7%	1.0%	0.1%	7.6%	100.0%	0.01	0.56	0.01	0.00	0.06	0.95	54.7%	0.8%	32.5%	0.6%	0.1%	3.6%	54.7%
38			156		5	0.02	1.33	0.02	0.02	0.12	2.04		1.0%	65.4%	1.0%	0.7%	6.0%	100.0%	0.02	0.56	0.01	0.01	0.05	1.01	49.5%	0.9%	27.6%	0.5%	0.7%	2.6%	49.5%
39			162		5	0.01	1.32	0.36	0.00	0.09	1.99		0.4%	66.2%	18.2%	0.2%	4.5%	100.0%	0.01	0.51	0.25	0.00	0.04	0.95	47.4%	0.4%	25.7%	12.6%	0.2%	2.0%	47.4%
40			163		5	0.02	0.99	0.03	0.00	0.11	1.42		1.1%	69.2%	2.3%	0.1%	7.9%	100.0%	0.01	0.46	0.02	0.00	0.06	0.83	58.6%	0.8%	32.5%	1.6%	0.1%	4.3%	58.6%
41			164		5	0.02	1.12	0.02	0.00	0.16	1.55		1.2%	72.3%	1.0%	0.2%	10.3%	100.0%	0.01	0.56	0.01	0.00	0.08	0.84	53.9%	0.9%	36.2%	0.7%	0.2%	5.3%	53.9%
42			165		5	0.02	1.24	0.02	0.01	0.13	1.84		1.0%	67.1%	1.1%	0.3%	6.8%	100.0%	0.02	0.55	0.01	0.01	0.06	0.96	51.8%	0.9%	29.9%	0.5%	0.3%	3.1%	51.8%
43			0	128	2	0.01	0.43	0.02	0.00	0.17	0.58		2.1%	74.5%	3.5%	0.5%	28.8%	100.0%	0.01	0.16	0.02	0.00	0.08	0.23	40.3%	1.6%	28.5%	2.8%	0.5%	13.9%	40.3%
44			2	130	2	0.01	0.33	0.03	0.01	0.03	0.62		1.8%	52.3%	4.3%	1.0%	5.3%	100.0%	0.01	0.11	0.02	0.01	0.02	0.25	40.4%	1.6%	17.7%	3.2%	0.8%	3.2%	40.4%
45			4	132	2	0.02	0.38	0.04	0.01	0.05	0.57		2.6%	65.9%	7.0%	0.9%	8.5%	100.0%	0.01	0.13	0.03	0.00	0.02	0.22	38.9%	2.3%	22.5%	5.4%	0.7%	3.5%	38.9%
46			6	134	2	0.02	0.34	0.06	0.00	0.06	0.67		3.0%	51.4%	8.2%	0.6%	8.8%	100.0%	0.02	0.12	0.04	0.00	0.02	0.22	33.1%	2.4%	18.4%	6.0%	0.6%	3.6%	33.1%
47			8	136	2	0.01	0.37	0.04	0.00	0.03	0.61		2.0%	60.4%	6.5%	0.5%	5.4%	100.0%	0.01	0.12	0.03	0.00	0.01	0.26	42.7%	1.6%	19.6%	4.6%	0.5%	2.1%	42.7%
48			10	138	4	0.02	0.54	0.10	0.02	0.09	0.85		2.5%	63.2%	12.1%	2.0%	10.9%	100.0%	0.01	0.19	0.07	0.02	0.06	0.35	41.5%	1.6%	22.5%	8.6%	1.9%	6.7%	41.5%
49			11	139	4	0.02	0.76	0.06	0.00	0.18	1.26		1.5%	59.9%	4.6%	0.3%	14.0%	100.0%	0.01	0.27	0.05	0.00	0.08	0.64	50.2%	1.1%	21.6%	3.6%	0.3%	6.3%	50.2%
50			12	140	4	0.03	0.78	0.02	0.01	0.07	1.33		2.0%	58.5%	1.7%	0.5%	5.0%	100.0%	0.02	0.32	0.02	0.01	0.04	0.65	48.8%	1.8%	24.0%	1.1%	0.5%	2.7%	48.8%
51			13	141	4	0.04	0.90	0.03	0.01	0.20	1.34		2.7%	67.0%	2.4%	1.0%	14.8%	100.0%	0.03	0.36	0.02	0.01	0.10	0.55	41.0%	2.3%	26.7%	1.8%	1.0%	7.3%	41.0%
52			18	146	4	0.03	0.69	0.18	0.01	0.11	1.29		2.2%	53.7%	14.2%	0.5%	8.2%	100.0%	0.02	0.28	0.14	0.01	0.04	0.54	41.9%	1.9%	21.3%	10.4%	0.5%	3.1%	41.9%
53			19	147	4	0.02	0.87	0.03	0.00	0.18	1.32		1.5%	65.4%	2.6%	0.3%	13.3%	100.0%	0.02	0.31	0.03	0.00	0.08	0.67	50.6%	1.2%	23.7%	2.1%	0.2%	5.9%	50.6%
54			20	148	4	0.03	0.98	0.02	0.01	0.09	1.52		2.1%	64.8%	1.3%	0.6%	6.1%	100.0%	0.03	0.44	0.02	0.01	0.04	0.69	45.8%	1.7%	28.8%	1.0%	0.6%	2.6%	45.8%
55			24	152	10	0.04	1.67	0.59	0.02	0.45	2.78		1.3%	60.1%	21.3%	0.6%	16.2%	100.0%	0.03	0.53	0.42	0.02	0.22	1.07	38.6%	1.1%	19.0%	15.0%	0.5%	8.0%	38.6%
56			25	153	10	0.08	2.18	0.32	0.01	0.19	3.54		2.3%	61.6%	8.9%	0.2%	5.3%	100.0%	0.07	1.06	0.20	0.01	0.08	1.96	55.3%	2.0%	29.8%	5.7%	0.1%	2.2%	55.3%
57			26	154	10	0.14	2.04	0.08	0.00	0.28	3.08		4.5%	66.3%	2.6%	0.1%	9.1%	100.0%	0.12	1.04	0.06	0.00	0.15	1.74	56.5%	3.8%	33.9%	1.8%	0.1%	5.0%	56.5%
58			27	155	10	0.12	2.31	0.03	0.01	0.21	3.33		3.7%	69.4%	0.8%	0.2%	6.3%	100.0%	0.11	1.13	0.02	0.00	0.11	1.90	56.9%	3.2%	33.8%	0.5%	0.1%	3.3%	56.9%
59			28	156	10	0.09	2.67	0.06	0.02	0.31	3.78		2.5%	70.6%	1.6%	0.6%	8.2%	100.0%	0.08	1.31	0.03	0.02	0.16	1.94	51.4%	2.1%	34.8%	0.9%	0.5%	4.1%	51.4%
60			34	162	10	0.04	1.95	0.55	0.01	0.36	3.39		1.2%	57.6%	16.2%	0.3%	10.7%	100.0%	0.03	0.79	0.40	0.01	0.17	1.56	46.1%	0.9%	23.2%	11.8%	0.3%	5.1%	46.1%
61			35	163	10	0.15	2.11	0.12	0.01	0.27	3.06		4.7%	68.9%	4.0%	0.2%	8.8%	100.0%	0.12	1.03	0.10	0.01	0.14	1.81	59.0%	3.8%	33.6%	3.3%	0.2%	4.5%	59.0%
62			36	164	10	0.11	2.07	0.04	0.01	0.28	3.02		3.5%	68.6%	1.4%	0.2%	9.1%	100.0%	0.09	1.08	0.03	0.01	0.16	1.74	57.6%	2.8%	35.9%	0.9%	0.2%	5.3%	57.6%
63			37	165	10	0.12	2.56	0.05	0.02	0.25	3.59		3.2%	71.3%	1.5%	0.4%	7.1%	100.0%	0.10	1.26	0.03	0.01	0.14	1.99	55.5%	2.8%	35.0%	0.9%	0.3%	3.8%	55.5%

- M–patch Mid CH

													max ratio out of all beams													max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							5.9%	85.7%	22.8%	2.2%	37.0%	100.0%	4cm2 PD(mW/cm2) at 10mm evaluation distance						61.3%	5.0%	40.2%	15.3%	2.0%	16.5%	61.3%
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
1	M	Patch	0		1	0.00	0.16	0.01	0.00	0.06	0.19		2.1%	85.7%	3.7%	0.5%	33.3%	100.0%	0.00	0.08	0.00	0.00	0.03	0.08	40.2%	1.6%	40.2%	2.1%	0.5%	16.4%	39.7%
2			2		1	0.01	0.13	0.01	0.00	0.02	0.24		3.3%	51.4%	3.3%	0.4%	6.2%	100.0%	0.01	0.05	0.01	0.00	0.01	0.12	47.7%	2.9%	20.2%	2.1%	0.4%	3.3%	47.7%
3			4		1	0.01	0.10	0.01	0.00	0.01	0.27		2.6%	36.6%	2.6%	0.8%	4.5%	100.0%	0.01	0.04	0.01	0.00	0.01	0.12	43.8%	2.3%	13.6%	1.9%	0.4%	1.9%	43.8%
4			6		1	0.01	0.06	0.01	0.00	0.01	0.28		2.5%	21.4%	5.0%	0.4%	5.0%	100.0%	0.01	0.02	0.01	0.00	0.01	0.11	39.6%	2.1%	6.8%	3.6%	0.4%	2.1%	39.6%
5			8		1	0.01	0.11	0.02	0.00	0.01	0.27		2.6%	42.7%	6.7%	0.4%	4.9%	100.0%	0.01	0.03	0.01	0.00	0.01	0.12	43.1%	2.2%	12.4%	4.5%	0.4%	1.9%	43.1%
6			10		2	0.01	0.17	0.02	0.00	0.05	0.29		3.1%	58.5%	7.8%	1.0%	15.3%	100.0%	0.01	0.07	0.02	0.00	0.02	0.13	45.6%	2.4%	22.8%	5.1%	0.7%	7.1%	45.6%
7			11		2	0.01	0.20	0.03	0.00	0.06	0.36		3.6%	53.8%	6.9%	0.5%	16.8%	100.0%	0.01	0.07	0.01	0.00	0.03	0.17	47.8%	3.0%	20.3%	3.8%	0.5%	7.4%	47.8%
8			12		2	0.02	0.21	0.01	0.00	0.02	0.56		2.8%	37.9%	1.4%	0.7%	3.7%	100.0%	0.01	0.08	0.01	0.00	0.01	0.31	54.8%	2.5%	13.3%	0.9%	0.5%	1.4%	54.8%
9			13		2	0.02	0.39	0.01	0.00	0.10	0.52		3.3%	75.5%	1.4%	0.6%	18.9%	100.0%	0.01	0.20	0.00	0.00	0.05	0.23	45.0%	2.7%	38.6%	0.8%	0.4%	9.8%	45.0%
10			18		2	0.01	0.22	0.05	0.00	0.03	0.53		2.1%	41.7%	9.5%	0.8%	5.0%	100.0%	0.01	0.08	0.03	0.00	0.01	0.26	48.8%	1.9%	15.8%	5.9%	0.6%	2.5%	48.8%
11			19		2	0.01	0.27	0.03	0.00	0.06	0.46		2.8%	58.7%	5.4%	0.4%	11.9%	100.0%	0.01	0.11	0.01	0.00	0.03	0.22	47.2%	2.4%	23.8%	2.8%	0.4%	5.4%	47.2%
12			20		2	0.01	0.30	0.01	0.00	0.01	0.67		1.9%	44.0%	1.5%	0.3%	2.1%	100.0%	0.01	0.13	0.01	0.00	0.01	0.34	49.8%	1.5%	19.9%	1.0%	0.3%	1.0%	49.8%
13			24		5	0.02	0.22	0.09	0.01	0.20	0.54		4.1%	40.3%	17.4%	2.2%	37.0%	100.0%	0.02	0.09	0.06	0.01	0.09	0.24	44.5%	3.5%	15.9%	11.5%	2.0%	16.5%	44.5%
14			25		5	0.04	0.69	0.13	0.00	0.06	1.41		2.7%	49.0%	9.3%	0.2%	4.0%	100.0%	0.03	0.32	0.08	0.00	0.03	0.71	50.4%	2.3%	22.6%	5.5%	0.2%	2.1%	50.4%
15			26		5	0.06	0.54	0.04	0.00	0.07	1.36		4.7%	40.0%	2.8%	0.1%	4.9%	100.0%	0.06	0.25	0.03	0.00	0.03	0.79	58.1%	4.3%	18.5%	1.9%	0.1%	2.4%	58.1%
16			27		5	0.05	0.70	0.02	0.00	0.05	1.39		3.4%	50.1%	1.1%	0.1%	3.7%	100.0%	0.04	0.36	0.01	0.00	0.02	0.78	55.8%	3.0%	25.8%	0.6%	0.1%	1.6%	55.8%
17			28		5	0.04	0.94	0.03	0.01	0.11	1.52		2.6%	61.5%	2.2%	0.5%	7.5%	100.0%	0.03	0.51	0.02	0.01	0.06	0.80	52.5%	2.2%	33.2%	1.4%	0.5%	3.7%	52.5%
18			34		5	0.02	0.38	0.11	0.01	0.15	0.82		2.5%	45.5%	13.7%	0.8%	18.2%	100.0%	0.02	0.14	0.08	0.01	0.07	0.39	47.3%	2.2%	16.9%	9.7%	0.7%	8.0%	47.3%
19			35		5	0.08	0.62	0.07	0.01	0.08	1.30		5.9%	47.8%	5.6%	0.4%	6.2%	100.0%	0.07	0.29	0.05	0.00	0.04	0.76	58.7%	5.0%	22.2%	4.0%	0.3%	3.2%	58.7%
20			36		5	0.04	0.57	0.02	0.00	0.06	1.30		3.2%	43.5%	1.5%	0.1%	4.7%	100.0%	0.04	0.28	0.01	0.00	0.03	0.73	55.8%	2.8%	21.2%	0.9%	0.1%	2.4%	55.8%
21			37		5	0.06	0.82	0.02	0.01	0.07	1.53		3.6%	53.7%	1.5%	0.4%	4.8%	100.0%	0.05	0.43	0.01	0.01	0.04	0.83	54.1%	3.1%	28.4%	0.9%	0.3%	2.4%	54.1%
22			128		1	0.00	0.16	0.01	0.00	0.03	0.34		0.6%	47.3%	3.8%	0.3%	8.6%	100.0%	0.00	0.05	0.01	0.00	0.01	0.14	39.9%	0.6%	14.8%	3.0%	0.3%	4.1%	39.9%
23			130		1	0.00	0.18	0.02	0.00	0.01	0.35		0.6%	50.6%	4.3%	0.9%	3.7%	100.0%	0.00	0.05	0.01	0.00	0.01	0.14	39.4%	0.6%	15.4%	3.1%	0.9%	2.0%	39.4%
24			132		1	0.00	0.21	0.02	0.00	0.02	0.32		0.9%	66.5%	6.3%	0.6%	6.6%	100.0%	0.00	0.08	0.01	0.00	0.01	0.12	37.7%	0.9%	23.7%	4.4%	0.6%	2.8%	37.7%
25			134		1	0.00	0.22	0.03	0.00	0.03	0.30		1.0%	75.7%	8.4%	1.0%	9.5%	100.0%	0.00	0.07	0.02	0.00	0.01	0.10	33.8%	0.7%	23.3%	5.7%	0.7%	4.4%	33.8%
26			136		1	0.00	0.17	0.03	0.00	0.02	0.29		0.7%	59.2%	9.9%	0.7%	5.1%	100.0%	0.00	0.05	0.02	0.00	0.01	0.10	35.4%	0.3%	16.3%	6.1%	0.7%	2.0%	35.4%
27			138		2	0.01	0.30	0.06	0.01	0.03	0.48		1.1%	62.1%	12.4%	1.7%	7.2%	100.0%	0.00	0.09	0.04	0.01	0.01	0.17	34.7%	0.8%	18.7%	8.2%	1.7%	2.9%	34.7%
28			139		2	0.00	0.45	0.03	0.00	0.06	0.74		0.4%	60.5%	4.6%	0.1%	8.0%	100.0%	0.00	0.15	0.03	0.00	0.03	0.36	48.8%	0.4%	19.8%	3.5%	0.1%	3.8%	48.8%
29			140		2	0.01	0.49	0.01	0.00	0.04	0.81		0.6%	60.6%	1.2%	0.5%	4.3%	100.0%	0.00	0.19	0.01	0.00	0.02	0.38	46.2%	0.5%	22.9%	0.9%	0.5%	2.2%	46.2%
30			141		2	0.01	0.41	0.02	0.01	0.05	0.75		1.1%	54.9%	2.3%	1.1%	6.3%	100.0%	0.01	0.14	0.01	0.01	0.02	0.39	52.0%	0.8%	19.1%	1.6%	0.9%	2.8%	52.0%
31			146		2	0.01	0.40	0.09	0.00	0.04	0.61		0.8%	66.4%	14.5%	0.3%	6.4%	100.0%	0.00	0.15	0.06	0.00	0.02	0.26	42.6%	0.7%	24.2%	9.9%	0.3%	2.8%	42.6%
32			147		2	0.00	0.45	0.02	0.00	0.06	0.74		0.4%	60.8%	2.0%	0.1%	8.0%	100.0%	0.00	0.16	0.01	0.00	0.03	0.37	50.3%	0.3%	21.9%	1.6%	0.1%	3.6%	50.3%
33			148		2	0.01	0.57	0.01	0.01	0.07	0.74		0.9%	77.0%	0.8%	0.9%	8.7%	100.0%	0.01	0.23	0.00	0.01	0.03	0.31	41.9%	0.7%	30.2%	0.5%	0.9%	3.6%	41.9%
34			152		5	0.01	1.12	0.38	0.01	0.13	1.67		0.8%	67.2%	22.8%	0.3%	7.8%	100.0%	0.01	0.37	0.26	0.00	0.06	0.67	40.0%	0.7%	22.3%	15.3%	0.2%	3.6%	40.0%
35			153		5	0.02	1.10	0.13	0.00	0.08	1.68		0.9%	65.2%	7.6%	0.1%	4.5%	100.0%	0.01	0.51	0.08	0.00	0.04	0.94	55.8%	0.7%	30.3%	4.6%	0.1%	2.4%	55.8%
36			154		5	0.02	1.15	0.02	0.00	0.15	1.51		1.3%	76.1%	1.6%	0.2%	9.9%	100.0%	0.01	0.56	0.02	0.00	0.08	0.87	57.3%	0.9%	37.4%	1.1%	0.1%	5.2%	57.3%
37			155		5	0.01	1.27	0.02	0.00	0.13	1.84		0.8%	69.1%	1.3%	0.1%	7.0%	100.0%	0.01	0.62	0.02	0.00	0.07	1.02	55.6%	0.7%	33.9%	0.8%	0.1%	3.6%	55.6%
38			156		5	0.02	1.38	0.02	0.01	0.12	2.14		0.7%	64.7%	0.9%	0.7%	5.6%	100.0%	0.01	0.62	0.01	0.01	0.06	1.08	50.5%	0.6%	28.8%	0.5%	0.7%	2.6%	50.5%
39			162		5	0.01	1.48	0.40	0.00	0.07	2.23		0.4%	66.4%	17.8%	0.2%	3.3%	100.0%	0.01	0.60	0.28	0.00	0.03	1.06	47.7%	0.4%	26.9%	12.7%	0.1%	1.3%	47.7%
40			163		5	0.02	1.08	0.03	0.00	0.13	1.48		1.2%	73.3%	1.8%	0.1%	8.6%	100.0%	0.01	0.53	0.02	0.00	0.07	0.91	61.3%	0.8%	35.6%	1.3%	0.1%	4.9%	61.3%
41			164		5	0.02	1.19	0.02	0.00	0.15	1.58		1.3%	74.9%	1.0%	0.3%	9.7%	100.0%	0.02	0.60	0.01	0.00	0.08	0.90	56.8%	1.0%	37.8%	0.6%	0.3%	5.1%	56.8%
42			165		5	0.01	1.29	0.02	0.01	0.12	1.96		0.7%	65.9%	1.2%	0.3%	6.1%	100.0%	0.01	0.61	0.01	0.01	0.06	1.03	52.9%	0.6%	31.0%	0.6%	0.3%	3.0%	52.9%
43			0	128	2	0.01	0.43	0.02	0.00	0.16	0.55		1.6%	78.9%	3.3%	0.5%	29.5%	100.0%	0.01	0.18	0.02	0.00	0.08	0.21	37.5%	1.5%	32.0%	2.7%	0.5%	14.2%	37.5%
44			2	130	2	0.01	0.37	0.03	0.01	0.04	0.64		2.2%	57.4%	3.9%	0.9%	5.8%	100.0%	0.01	0.13	0.02	0.01	0.02	0.28	43.2%	1.9%	20.3%	3.3%	0.9%	2.8%	43.2%
45			4	132	2	0.02	0.41	0.04	0.01	0.05	0.62		3.1%	67.0%	6.0%	0.8%	8.0%	100.0%	0.01	0.14	0.03	0.00	0.02	0.27	43.2%	2.3%	22.4%	4.5%	0.6%	3.7%	43.2%
46			6	134	2	0.02	0.34	0.05	0.01	0.06	0.66		2.3%	52.0%	7.9%	0.9%	9.4%	100.0%	0.01	0.11	0.04	0.01	0.03	0.23	35.6%	2.0%	16.0%	5.6%	0.9%	4.3%	35.6%
47			8	136	2	0.01	0.37	0.06	0.00	0.04	0.65		1.7%	57.7%	8.5%	0.6%	6.8%	100.0%	0.01	0.12	0.04	0.00	0.02	0.26	40.8%	1.4%	17.8%	6.0%	0.6%	2.3%	40.8%
48			10	138	4	0.02	0.56	0.11	0.02	0.12	0.91		2.5%	62.3%	11.6%	2.0%	12.8%	100.0%	0.02	0.21	0.08	0.02	0.05	0.39	42.9%	2.0%	23.0%	9.1%	1.8%	5.5%	42.9%
49			11	139	4	0.02	0.74	0.06	0.01	0.21	1.30		1.5%	56.6%	4.4%	0.4%	16.0%	100.0%	0.02	0.29	0.04	0.01	0.10	0.59	45.4%	1.2%	21.9%	3.2%	0.4%	7.7%	45.4%
50			12	140	4	0.03	0.79	0.02	0.01	0.08	1.41		2.3%	56.4%	1.5%	0.6%	5.3%	100.0%	0.03	0.31	0.01	0.01	0.04	0.71	50.5%	2.1%	22.1%	1.0%	0.6%	2.8%	50.5%
51			13	141	4	0.04	0.95	0.02	0.01	0.21	1.35		2.7%	70.6%	1.8%	0.9%	15.3%	100.0%	0.03	0.38	0.02	0.01	0.09	0.59	43.9%	2.4%	28.0%	1.4%	0.8%	6.9%	43.9%
52			18	146	4	0.02	0.73	0.17	0.01	0.09	1.26		1.7%	58.0%	13.5%	0.7%	7.5%	100.0%	0.02	0.26	0.12	0.01	0.04	0.55	43.5%	1.4%	20.5%	9.2%	0.6%	3.3%	43.5%
53			19	147	4	0.02	0.88	0.04	0.01	0.21	1.32		1.4%	66.4%	3.2%	0.4%	16.2%	100.0%	0.02	0.35	0.03	0.01	0.10	0.62	47.2%	1.1%	26.2%	1.9%	0.4%	7.5%	47.2%
54			20	148	4	0.03	1.09	0.03	0.01	0.09	1.53		2.0%	71.1%	1.9%	0.8%	5.6%	100.0%	0.03	0.48	0.02	0.01	0.04	0.74	48.4%	1.6%	31.7%	1.4%	0.7%	2.4%	48.4%
55			24	152	10	0.05	1.79	0.59	0.03	0.47	2.83		1.8%	63.0%	21.0%	0.9%	16.6%	100.0%	0.05	0.64	0.40	0.02	0.23	1.13	39.8%	1.6%	22.6%	14.2%	0.8%	8.2%	39.8%
56			25	153	10	0.09	2.21	0.30	0.01	0.18	3.63		2.4%	60.8%	8.2%	0.2%	4.9%	100.0%	0.07	1.05	0.18	0.01	0.09	2.03	56.0%	1.9%	28.9%	4.9%	0.2%	2.6%	56.0%
57			26	154	10	0.12	2.06	0.08	0.01	0.33	3.11		3.9%	66.5%	2.4%	0.2%	10.6%	100.0%	0.11	1.04	0.05	0.01	0.18	1.80	58.0%	3.4%	33.5%	1.6%	0.2%	5.8%	58.0%
58			27	155	10	0.10	2.43	0.05	0.01	0.22	3.56		2.8%	68.2%	1.3%	0.1%	6.1%	100.0%	0.08	1.22	0.03	0.00	0.13	2.06	57.7%	2.3%	34.3%	0.8%	0.1%	3.5%	57.7%
59			28	156	10	0.08	2.68	0.06	0.03	0.28	3.81		2.2%	70.4%	1.6%	0.7%	7.4%	100.0%	0.07	1.31	0.04	0.03	0.13	2.07	54.5%	1.8%	34.5%	0.9%	0.7%	3.5%	54.5%
60			34	162	10	0.04	2.30	0.61	0.02	0.37	3.88		1.1%	59.2%	15.8%	0.5%	9.5%	100.0%	0.03	0.95	0.45	0.02	0.16	1.86	47.9%	0.9%	24.4%	11.7%	0.4%	4.1%	47.9%
61			35	163	10	0.15	2.20	0.13	0.01	0.34	3.20		4.7%	68.6%	4.0%	0.2%	10.6%	100.0%	0.12	1.05	0.09	0.01	0.18	1.93	60.2%	3.7%	32.8%	2.9%	0.2%	5.7%	60.2%
62			36	164	10	0.10	2.12	0.05	0.01	0.32	3.09		3.4%	68.4%	1.5%	0.3%	10.2%	100.0%	0.09	1.10	0.03	0.01	0.17	1.79	57.8%	2.7%	35.4%	1.0%	0.2%	5.6%	57.8%
63			37	165	10	0.11	2.60	0.05	0.01	0.23	3.77		2.8%	69.1%	1.4%	0.4%	6.0%	100.0%	0.09	1.31	0.03	0.01	0.12	2.11	56.1%	2.4%	34.7%	0.9%	0.3%	3.2%	56.1%

- M–patch High CH

													max ratio out of all beams													max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							5.1%	77.4%	22.0%	2.2%	25.6%	100.0%	4cm2 PD(mW/cm2) at 10mm evaluation distance						60.3%	4.4%	39.3%	15.7%	2.2%	10.8%	60.3%
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
1	M	Patch	0		1	0.00	0.15	0.01	0.00	0.04	0.21		1.9%	74.3%	4.4%	0.5%	20.4%	100.0%	0.00	0.07	0.01	0.00	0.02	0.08	38.3%	1.5%	35.9%	2.9%	0.5%	9.7%	38.3%
2			2		1	0.01	0.12	0.01	0.00	0.01	0.25		3.2%	48.4%	4.0%	0.4%	5.6%	100.0%	0.01	0.05	0.01	0.00	0.01	0.12	48.4%	2.4%	21.0%	2.4%	0.4%	3.2%	48.4%
3			4		1	0.01	0.12	0.01	0.00	0.01	0.29		2.5%	41.4%	2.8%	0.7%	3.9%	100.0%	0.01	0.04	0.01	0.00	0.01	0.13	45.3%	2.1%	14.4%	1.8%	0.4%	1.8%	45.3%
4			6		1	0.01	0.07	0.01	0.00	0.02	0.29		2.1%	25.1%	4.2%	0.7%	5.6%	100.0%	0.01	0.02	0.01	0.00	0.01	0.12	42.9%	1.7%	8.4%	2.8%	0.7%	2.4%	42.9%
5			8		1	0.01	0.10	0.02	0.00	0.02	0.27		3.0%	38.5%	6.8%	0.4%	9.1%	100.0%	0.01	0.03	0.01	0.00	0.01	0.12	46.0%	2.6%	12.8%	3.4%	0.4%	3.8%	46.0%
6			10		2	0.01	0.19	0.03	0.00	0.04	0.29		3.4%	65.1%	9.2%	1.0%	14.0%	100.0%	0.01	0.08	0.02	0.00	0.02	0.13	43.2%	2.7%	26.0%	5.5%	1.0%	6.8%	43.2%
7			11		2	0.02	0.19	0.03	0.00	0.04	0.41		4.4%	45.4%	7.3%	0.7%	10.7%	100.0%	0.02	0.08	0.02	0.00	0.02	0.18	42.7%	3.6%	18.7%	4.6%	0.7%	4.9%	42.7%
8			12		2	0.01	0.24	0.01	0.01	0.02	0.60		2.0%	40.3%	1.5%	0.8%	3.0%	100.0%	0.01	0.08	0.01	0.00	0.01	0.33	54.7%	1.8%	12.6%	1.2%	0.7%	1.3%	54.7%
9			13		2	0.02	0.39	0.01	0.00	0.07	0.55		3.1%	71.5%	1.5%	0.4%	13.5%	100.0%	0.01	0.20	0.01	0.00	0.04	0.26	47.5%	2.6%	36.0%	1.1%	0.4%	6.4%	47.5%
10			18		2	0.01	0.24	0.05	0.00	0.03	0.57		2.3%	42.6%	9.0%	0.5%	5.3%	100.0%	0.01	0.10	0.03	0.00	0.02	0.29	51.4%	1.8%	16.8%	4.9%	0.5%	2.7%	51.4%
11			19		2	0.02	0.26	0.03	0.00	0.04	0.51		3.3%	51.4%	5.1%	0.6%	7.8%	100.0%	0.01	0.11	0.02	0.00	0.02	0.23	45.3%	2.7%	22.4%	3.1%	0.4%	3.7%	45.3%
12			20		2	0.01	0.31	0.01	0.00	0.02	0.74		1.6%	42.7%	1.6%	0.3%	2.0%	100.0%	0.01	0.14	0.01	0.00	0.01	0.38	51.1%	1.4%	19.3%	1.2%	0.1%	1.0%	51.1%
13			24		5	0.03	0.27	0.08	0.01	0.15	0.59		4.7%	45.8%	13.2%	2.2%	25.6%	100.0%	0.02	0.09	0.05	0.01	0.06	0.25	42.7%	4.1%	15.4%	8.8%	2.2%	10.8%	42.7%
14			25		5	0.04	0.76	0.14	0.00	0.08	1.51		2.6%	50.7%	9.2%	0.1%	5.1%	100.0%	0.03	0.35	0.08	0.00	0.03	0.77	51.3%	2.3%	23.0%	5.1%	0.1%	2.1%	51.3%
15			26		5	0.07	0.56	0.04	0.00	0.08	1.46		4.9%	38.3%	2.5%	0.2%	5.7%	100.0%	0.06	0.26	0.03	0.00	0.04	0.85	57.8%	4.4%	17.6%	1.8%	0.1%	2.6%	57.8%
16			27		5	0.04	0.74	0.03	0.00	0.06	1.48		2.6%	49.5%	1.8%	0.3%	4.0%	100.0%	0.03	0.39	0.02	0.00	0.02	0.86	57.6%	2.0%	26.3%	1.3%	0.2%	1.6%	57.6%
17			28		5	0.04	0.91	0.03	0.01	0.08	1.59		2.4%	57.2%	2.1%	0.6%	4.8%	100.0%	0.03	0.48	0.02	0.01	0.04	0.86	53.7%	2.1%	30.0%	1.3%	0.5%	2.2%	53.7%
18			34		5	0.02	0.46	0.12	0.01	0.12	0.92		2.5%	50.4%	12.6%	1.0%	12.8%	100.0%	0.02	0.19	0.07	0.01	0.05	0.42	46.1%	2.0%	21.2%	7.9%	0.9%	5.9%	46.1%
19			35		5	0.07	0.65	0.09	0.01	0.08	1.44		5.1%	44.8%	6.0%	0.4%	5.8%	100.0%	0.06	0.28	0.06	0.01	0.04	0.83	57.7%	4.4%	19.3%	4.2%	0.4%	2.9%	57.7%
20			36		5	0.05	0.59	0.02	0.00	0.09	1.39		3.7%	42.3%	1.5%	0.1%	6.7%	100.0%	0.05	0.29	0.01	0.00	0.04	0.78	56.5%	3.5%	20.5%	0.9%	0.1%	2.8%	56.5%
21			37		5	0.05	0.84	0.03	0.01	0.05	1.61		2.9%	52.3%	1.9%	0.4%	3.3%	100.0%	0.04	0.44	0.02	0.01	0.02	0.90	56.2%	2.7%	27.1%	1.2%	0.4%	1.5%	56.2%
22			128		1	0.00	0.17	0.01	0.00	0.03	0.37		1.1%	46.0%	3.8%	0.5%	6.7%	100.0%	0.00	0.05	0.01	0.00	0.01	0.15	39.2%	0.8%	14.2%	2.7%	0.5%	3.0%	39.2%
23			130		1	0.00	0.20	0.02	0.00	0.02	0.37		0.8%	55.2%	4.3%	0.8%	4.6%	100.0%	0.00	0.07	0.01	0.00	0.01	0.15	39.4%	0.8%	17.7%	3.0%	0.8%	1.6%	39.4%
24			132		1	0.00	0.23	0.02	0.00	0.02	0.31		1.3%	74.8%	4.9%	0.6%	7.8%	100.0%	0.00	0.09	0.01	0.00	0.01	0.12	38.5%	1.0%	28.5%	3.2%	0.6%	3.6%	38.5%
25			134		1	0.00	0.23	0.02	0.00	0.02	0.33		0.6%	68.5%	6.0%	0.9%	7.2%	100.0%	0.00	0.07	0.02	0.00	0.01	0.12	36.9%	0.6%	21.9%	4.5%	0.9%	3.6%	36.9%
26			136		1	0.00	0.19	0.03	0.00	0.02	0.33		0.6%	58.4%	9.6%	0.6%	6.0%	100.0%	0.00	0.06	0.02	0.00	0.01	0.12	34.9%	0.3%	17.2%	5.7%	0.6%	2.4%	34.9%
27			138		2	0.01	0.29	0.05	0.01	0.03	0.49		1.2%	60.4%	11.1%	1.6%	7.0%	100.0%	0.01	0.09	0.04	0.01	0.02	0.18	35.9%	1.0%	19.3%	7.6%	1.4%	3.3%	35.9%
28			139		2	0.00	0.48	0.04	0.00	0.05	0.81		0.5%	59.8%	4.3%	0.2%	5.7%	100.0%	0.00	0.16	0.03	0.00	0.02	0.38	47.3%	0.4%	19.8%	3.3%	0.2%	2.8%	47.3%
29			140		2	0.01	0.56	0.01	0.00	0.05	0.82		0.6%	67.8%	1.0%	0.5%	5.8%	100.0%	0.00	0.22	0.01	0.00	0.02	0.38	46.5%	0.5%	26.5%	0.7%	0.4%	2.9%	46.5%
30			141		2	0.01	0.47	0.02	0.01	0.06	0.80		1.3%	59.4%	2.1%	0.9%	7.2%	100.0%	0.01	0.17	0.01	0.01	0.03	0.42	52.9%	1.0%	21.0%	1.4%	0.8%	3.3%	52.9%
31			146		2	0.01	0.44	0.07	0.00	0.04	0.62		1.0%	69.9%	10.6%	0.5%	6.4%	100.0%	0.01	0.17	0.05	0.00	0.02	0.29	45.8%	0.8%	27.5%	8.0%	0.5%	3.1%	45.8%
32			147		2	0.00	0.49	0.02	0.00	0.06	0.81		0.4%	60.1%	2.0%	0.1%	6.9%	100.0%	0.00	0.18	0.01	0.00	0.03	0.39	48.2%	0.2%	22.1%	1.5%	0.1%	3.2%	48.2%
33			148		2	0.01	0.57	0.01	0.01	0.07	0.74		0.7%	76.7%	0.7%	0.9%	9.5%	100.0%	0.01	0.23	0.00	0.01	0.03	0.31	42.1%	0.7%	30.8%	0.5%	0.9%	4.2%	42.1%
34			152		5	0.01	1.18	0.36	0.01	0.10	1.64		0.9%	71.9%	22.0%	0.4%	5.8%	100.0%	0.01	0.41	0.26	0.01	0.05	0.65	39.7%	0.7%	25.1%	15.7%	0.3%	2.7%	39.7%
35			153		5	0.01	1.25	0.15	0.00	0.09	1.86		0.6%	66.9%	7.8%	0.1%	4.7%	100.0%	0.01	0.59	0.08	0.00	0.05	1.08	58.1%	0.5%	31.5%	4.4%	0.1%	2.5%	58.1%
36			154		5	0.02	1.29	0.03	0.00	0.15	1.66		1.3%	77.4%	1.7%	0.1%	9.2%	100.0%	0.02	0.65	0.02	0.00	0.08	0.96	57.9%	1.0%	39.3%	1.1%	0.1%	4.9%	57.9%
37			155		5	0.02	1.38	0.02	0.00	0.16	1.96		0.8%	70.3%	1.2%	0.1%	7.9%	100.0%	0.01	0.70	0.02	0.00	0.08	1.12	56.9%	0.6%	35.5%	0.8%	0.1%	4.2%	56.9%
38			156		5	0.01	1.43	0.02	0.01	0.14	2.24		0.6%	63.9%	0.8%	0.5%	6.1%	100.0%	0.01	0.67	0.01	0.01	0.07	1.16	51.9%	0.5%	29.9%	0.4%	0.4%	3.1%	51.9%
39			162		5	0.01	1.52	0.37	0.01	0.09	2.22		0.5%	68.3%	16.8%	0.3%	4.1%	100.0%	0.01	0.64	0.28	0.01	0.03	1.10	49.6%	0.4%	28.7%	12.4%	0.3%	1.5%	49.6%
40			163		5	0.01	1.19	0.04	0.00	0.13	1.60		0.9%	74.6%	2.6%	0.1%	8.0%	100.0%	0.01	0.61	0.03	0.00	0.07	0.95	59.8%	0.6%	37.9%	1.9%	0.1%	4.6%	59.8%
41			164		5	0.02	1.27	0.02	0.00	0.16	1.66		0.9%	76.2%	1.2%	0.2%	9.8%	100.0%	0.01	0.64	0.01	0.00	0.09	0.97	58.2%	0.7%	38.8%	0.7%	0.2%	5.1%	58.2%
42			165		5	0.02	1.39	0.02	0.00	0.14	2.09		0.8%	66.7%	0.9%	0.1%	6.7%	100.0%	0.01	0.68	0.01	0.00	0.08	1.15	54.8%	0.6%	32.6%	0.7%	0.1%	3.6%	54.8%
43			0	128	2	0.01	0.42	0.02	0.01	0.12	0.61		2.3%	69.1%	3.4%	0.8%	19.4%	100.0%	0.01	0.17	0.02	0.00	0.05	0.22	36.5%	1.8%	27.5%	2.4%	0.7%	8.8%	36.5%
44			2	130	2	0.01	0.38	0.03	0.01	0.04	0.68		2.1%	55.4%	4.1%	0.9%	6.1%	100.0%	0.01	0.14	0.02	0.01	0.02	0.27	40.0%	1.6%	21.1%	3.1%	0.7%	2.5%	40.0%
45			4	132	2	0.02	0.46	0.03	0.00	0.05	0.63		3.2%	73.1%	5.1%	0.6%	8.6%	100.0%	0.02	0.16	0.03	0.00	0.03	0.28	44.9%	2.5%	25.6%	4.0%	0.6%	4.3%	44.9%
46			6	134	2	0.01	0.36	0.05	0.01	0.06	0.69		1.7%	52.8%	6.7%	0.9%	9.3%	100.0%	0.01	0.11	0.03	0.01	0.03	0.26	37.2%	1.3%	15.3%	4.4%	0.9%	4.4%	37.2%
47			8	136	2	0.01	0.37	0.07	0.01	0.07	0.69		1.7%	53.8%	9.8%	0.7%	10.7%	100.0%	0.01	0.12	0.04	0.01	0.03	0.30	42.6%	1.4%	17.9%	6.4%	0.7%	3.9%	42.6%
48			10	138	4	0.03	0.57	0.10	0.02	0.11	0.95		2.7%	59.8%	10.8%	1.7%	11.8%	100.0%	0.02	0.23	0.08	0.02	0.05	0.39	40.8%	2.3%	23.8%	8.5%	1.6%	5.4%	40.8%
49			11	139	4	0.03	0.76	0.07	0.01	0.15	1.42		1.8%	53.4%	5.0%	0.6%	10.2%	100.0%	0.02	0.28	0.05	0.01	0.07	0.61	43.3%	1.5%	20.1%	3.7%	0.6%	5.0%	43.3%
50			12	140	4	0.03	0.85	0.02	0.01	0.07	1.45		1.9%	58.8%	1.2%	0.6%	5.0%	100.0%	0.02	0.35	0.01	0.01	0.04	0.72	49.6%	1.7%	23.8%	1.0%	0.6%	2.8%	49.6%
51			13	141	4	0.04	0.98	0.02	0.01	0.21	1.45		2.6%	67.4%	1.4%	0.6%	14.2%	100.0%	0.03	0.38	0.02	0.01	0.09	0.66	45.6%	2.3%	26.3%	1.1%	0.6%	6.2%	45.6%
52			18	146	4	0.02	0.80	0.15	0.01	0.09	1.32		1.7%	60.5%	11.4%	0.7%	6.8%	100.0%	0.02	0.27	0.11	0.01	0.04	0.61	46.0%	1.4%	20.8%	8.3%	0.7%	3.3%	46.0%
53			19	147	4	0.02	0.90	0.05	0.00	0.18	1.43		1.7%	63.4%	3.5%	0.3%	12.3%	100.0%	0.02	0.36	0.03	0.00	0.08	0.64	45.1%	1.4%	25.3%	2.4%	0.3%	5.8%	45.1%
54			20	148	4	0.03	1.13	0.03	0.01	0.09	1.56		2.0%	72.6%	1.9%	0.7%	6.0%	100.0%	0.03	0.49	0.02	0.01	0.04	0.78	49.7%	1.8%	31.2%	1.5%	0.6%	2.4%	49.7%
55			24	152	10	0.05	1.97	0.64	0.03	0.34	3.08		1.6%	63.8%	20.8%	1.1%	10.9%	100.0%	0.04	0.72	0.45	0.03	0.16	1.23	39.9%	1.4%	23.2%	14.6%	1.0%	5.3%	39.9%
56			25	153	10	0.07	2.37	0.32	0.01	0.23	3.77		1.9%	62.8%	8.5%	0.2%	6.1%	100.0%	0.07	1.07	0.18	0.01	0.10	2.15	56.9%	1.7%	28.2%	4.7%	0.2%	2.7%	56.9%
57			26	154	10	0.13	2.22	0.07	0.01	0.40	3.24		4.0%	68.4%	2.1%	0.2%	12.3%	100.0%	0.11	1.12	0.05	0.01	0.21	1.90	58.5%	3.4%	34.5%	1.4%	0.2%	6.5%	58.5%
58			27	155	10	0.09	2.45	0.06	0.01	0.25	3.65		2.3%	67.1%	1.5%	0.3%	6.8%	100.0%	0.07	1.25	0.04	0.01	0.14	2.18	59.6%	1.8%	34.1%	1.1%	0.2%	3.9%	59.6%
59			28	156	10	0.07	2.79	0.07	0.02	0.27	4.09		1.8%	68.1%	1.6%	0.6%	6.6%	100.0%	0.06	1.38	0.05	0.02	0.13	2.28	55.8%	1.5%	33.8%	1.1%	0.5%	3.2%	55.8%
60			34	162	10	0.04	2.49	0.62	0.03	0.25	4.19		0.9%	59.4%	14.8%	0.6%	5.9%	100.0%	0.03	1.04	0.47	0.03	0.11	2.02	48.1%	0.7%	24.7%	11.3%	0.6%	2.6%	48.1%
61			35	163	10	0.13	2.34	0.12	0.01	0.37	3.34		3.8%	70.0%	3.5%	0.4%	11.1%	100.0%	0.10	1.13	0.09	0.01	0.19	2.01	60.3%	3.1%	33.8%	2.6%	0.4%	5.8%	60.3%
62			36	164	10	0.10	2.18	0.06	0.01	0.35	3.15		3.3%	69.1%	1.8%	0.3%	11.1%	100.0%	0.09	1.11	0.03	0.01	0.19	1.83	58.2%	2.9%	35.1%	1.1%	0.3%	6.0%	58.2%
63			37	165	10	0.09	2.75	0.06	0.02	0.25	4.01		2.3%	68.5%	1.5%	0.4%	6.2%	100.0%	0.08	1.38	0.04	0.02	0.13	2.34	58.5%	2.0%	34.5%	0.9%	0.4%	3.3%	58.5%

3.1.2 Ant N– Patch Antenna

Table 6 to Table 8 show the PD simulation evaluation of Ant N patch antenna at 28GHz / 39GHz / 24GHz for the corresponding evaluation plane specified in Table 1.

Table 6. PD of Ant N – patch antenna (28GHz – n261)

- N–patch Low CH

													max ratio out of all beams													max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							100.0%	3.5%	3.1%	6.7%	48.3%	100.0%	4cm2 PD(mW/cm2) at 10mm evaluation distance						74.2%	74.2%	3.2%	2.7%	4.5%	21.5%	49.3%
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
64	N	Patch	1		1	0.27	0.00	0.00	0.01	0.08	0.15		100.0%	0.7%	0.7%	1.8%	29.5%	54.2%	0.11	0.00	0.00	0.00	0.03	0.06	42.1%	42.1%	0.7%	0.4%	1.5%	10.3%	21.8%
65			3		1	0.28	0.00	0.00	0.01	0.06	0.13		100.0%	1.1%	0.7%	2.5%	20.5%	47.0%	0.11	0.00	0.00	0.01	0.02	0.05	38.9%	38.9%	0.7%	0.7%	1.8%	8.1%	17.0%
66			5		1	0.31	0.00	0.00	0.01	0.08	0.12		100.0%	1.0%	0.3%	1.6%	24.8%	38.6%	0.13	0.00	0.00	0.00	0.03	0.05	41.8%	41.8%	0.6%	0.3%	1.3%	9.6%	14.8%
67			7		1	0.26	0.00	0.00	0.00	0.06	0.16		100.0%	1.1%	0.4%	1.5%	21.1%	60.5%	0.11	0.00	0.00	0.00	0.02	0.06	41.8%	41.8%	1.1%	0.4%	1.1%	6.5%	23.4%
68			9		1	0.31	0.00	0.00	0.01	0.10	0.14		100.0%	0.6%	0.6%	1.6%	31.2%	44.8%	0.13	0.00	0.00	0.00	0.03	0.05	43.5%	43.5%	0.6%	0.3%	1.3%	10.7%	16.2%
69			14		2	0.60	0.00	0.01	0.02	0.20	0.22		100.0%	0.5%	0.8%	3.2%	34.1%	36.4%	0.25	0.00	0.00	0.02	0.07	0.09	41.1%	41.1%	0.3%	0.7%	2.7%	12.4%	14.9%
70			15		2	0.55	0.01	0.00	0.01	0.15	0.36		100.0%	0.9%	0.2%	1.6%	27.8%	66.2%	0.30	0.00	0.00	0.01	0.05	0.16	53.6%	53.6%	0.7%	0.2%	1.3%	9.6%	28.2%
71			16		2	0.57	0.01	0.00	0.01	0.20	0.32		100.0%	1.2%	0.4%	1.9%	35.8%	55.9%	0.34	0.01	0.00	0.01	0.09	0.11	60.9%	60.9%	1.1%	0.4%	1.4%	15.0%	19.5%
72			17		2	0.53	0.00	0.01	0.02	0.15	0.21		100.0%	0.6%	1.1%	3.6%	28.3%	39.8%	0.18	0.00	0.01	0.02	0.05	0.07	34.7%	34.7%	0.6%	0.9%	3.0%	9.4%	14.0%
73			21		2	0.58	0.00	0.00	0.01	0.18	0.34		100.0%	0.7%	0.3%	1.9%	30.2%	58.9%	0.28	0.00	0.00	0.01	0.06	0.15	49.1%	49.1%	0.7%	0.3%	1.4%	10.5%	25.2%
74			22		2	0.48	0.01	0.00	0.01	0.16	0.34		100.0%	1.0%	0.4%	1.0%	33.9%	71.3%	0.32	0.01	0.00	0.00	0.06	0.14	66.7%	66.7%	1.0%	0.2%	0.6%	11.6%	28.5%
75			23		2	0.60	0.00	0.01	0.02	0.23	0.22		100.0%	0.7%	1.0%	2.5%	38.7%	35.9%	0.29	0.00	0.01	0.01	0.09	0.08	48.2%	48.2%	0.5%	0.8%	2.0%	14.6%	12.4%
76			29		5	1.61	0.01	0.01	0.06	0.62	0.56		100.0%	0.7%	0.6%	3.7%	38.4%	34.6%	0.81	0.01	0.01	0.05	0.25	0.25	50.3%	50.3%	0.6%	0.4%	2.9%	15.7%	15.4%
77			30		5	1.42	0.02	0.00	0.01	0.57	0.83		100.0%	1.1%	0.1%	0.8%	40.0%	58.5%	1.01	0.01	0.00	0.01	0.26	0.42	71.3%	71.3%	0.9%	0.1%	0.7%	18.3%	29.4%
78			31		5	1.08	0.02	0.00	0.01	0.33	0.96		100.0%	1.4%	0.3%	1.2%	30.2%	89.0%	0.79	0.01	0.00	0.01	0.15	0.48	72.7%	72.7%	1.2%	0.3%	0.9%	14.3%	44.3%
79			32		5	1.58	0.02	0.01	0.01	0.71	0.75		100.0%	1.2%	0.4%	0.6%	44.9%	47.7%	1.11	0.02	0.00	0.01	0.34	0.37	70.0%	70.0%	1.0%	0.3%	0.4%	21.5%	23.6%
80			33		5	1.38	0.01	0.02	0.04	0.57	0.47		100.0%	0.6%	1.6%	2.8%	41.5%	34.4%	0.59	0.01	0.02	0.03	0.24	0.21	43.2%	43.2%	0.5%	1.4%	2.0%	17.7%	15.4%
81			38		5	1.64	0.01	0.01	0.04	0.64	0.64		100.0%	0.9%	0.5%	2.5%	38.7%	38.8%	0.92	0.01	0.01	0.03	0.29	0.30	55.8%	55.8%	0.7%	0.4%	1.9%	17.8%	18.1%
82			39		5	1.14	0.02	0.00	0.01	0.36	0.97		100.0%	1.7%	0.3%	0.9%	31.2%	85.1%	0.83	0.02	0.00	0.01	0.16	0.47	72.6%	72.6%	1.4%	0.2%	0.7%	14.1%	41.2%
83			40		5	1.21	0.02	0.00	0.01	0.44	0.95		100.0%	1.6%	0.2%	1.1%	36.7%	79.1%	0.90	0.02	0.00	0.01	0.20	0.45	74.2%	74.2%	1.4%	0.2%	0.8%	16.7%	37.3%
84			41		5	1.76	0.01	0.01	0.03	0.77	0.67		100.0%	0.7%	0.6%	1.4%	43.7%	37.9%	1.02	0.01	0.01	0.02	0.37	0.30	57.7%	57.7%	0.5%	0.5%	1.1%	21.0%	16.8%
85			129		1	0.08	0.00	0.00	0.00	0.03	0.11		73.7%	1.8%	0.9%	1.8%	21.9%	100.0%	0.03	0.00	0.00	0.00	0.01	0.05	40.4%	21.9%	1.8%	0.9%	1.8%	7.9%	40.4%
86			131		1	0.10	0.00	0.00	0.00	0.04	0.07		100.0%	3.1%	2.1%	3.1%	36.5%	69.8%	0.03	0.00	0.00	0.00	0.02	0.03	28.1%	28.1%	2.1%	1.0%	2.1%	16.7%	28.1%
87			133		1	0.11	0.00	0.00	0.00	0.02	0.09		100.0%	0.9%	2.7%	2.7%	20.9%	78.2%	0.03	0.00	0.00	0.00	0.01	0.04	31.8%	29.1%	0.9%	2.7%	1.8%	8.2%	31.8%
88			135		1	0.10	0.00	0.00	0.00	0.03	0.07		100.0%	1.9%	1.0%	2.9%	33.0%	70.9%	0.04	0.00	0.00	0.00	0.01	0.04	34.0%	34.0%	1.9%	1.0%	1.9%	12.6%	34.0%
89			137		1	0.09	0.00	0.00	0.01	0.03	0.09		97.8%	2.2%	1.1%	6.7%	38.2%	100.0%	0.03	0.00	0.00	0.00	0.01	0.04	48.3%	34.8%	2.2%	1.1%	4.5%	13.5%	48.3%
90			142		2	0.14	0.00	0.00	0.01	0.06	0.19		71.5%	2.1%	1.6%	4.1%	30.1%	100.0%	0.04	0.00	0.00	0.01	0.02	0.08	39.9%	22.3%	2.1%	1.0%	3.1%	10.4%	39.9%
91			143		2	0.25	0.00	0.00	0.01	0.08	0.17		100.0%	1.6%	0.8%	2.0%	32.3%	69.0%	0.10	0.00	0.00	0.00	0.03	0.09	39.9%	39.9%	1.2%	0.4%	1.6%	13.7%	34.3%
92			144		2	0.20	0.00	0.00	0.01	0.08	0.14		100.0%	2.0%	1.5%	4.6%	40.6%	73.1%	0.07	0.00	0.00	0.01	0.03	0.07	36.0%	35.0%	2.0%	1.0%	3.6%	15.2%	36.0%
93			145		2	0.17	0.00	0.00	0.01	0.06	0.18		94.9%	1.7%	2.3%	3.4%	35.2%	100.0%	0.05	0.00	0.00	0.01	0.03	0.07	41.5%	26.7%	1.1%	2.3%	2.8%	15.9%	41.5%
94			149		2	0.21	0.00	0.00	0.01	0.07	0.14		100.0%	1.4%	1.9%	3.4%	33.2%	66.3%	0.08	0.00	0.00	0.01	0.03	0.07	38.5%	38.5%	1.4%	1.4%	2.9%	13.0%	32.7%
95			150		2	0.26	0.00	0.00	0.00	0.08	0.19		100.0%	1.2%	0.4%	1.2%	30.2%	71.7%	0.10	0.00	0.00	0.00	0.03	0.10	39.1%	39.1%	1.2%	0.4%	0.8%	13.2%	36.8%
96			151		2	0.21	0.00	0.01	0.01	0.05	0.18		100.0%	1.0%	2.9%	2.9%	22.2%	86.5%	0.06	0.00	0.01	0.01	0.02	0.08	40.6%	30.4%	1.0%	2.4%	2.4%	8.7%	40.6%
97			157		5	0.41	0.02	0.01	0.03	0.14	0.54		76.1%	3.5%	1.9%	5.0%	26.5%	100.0%	0.15	0.02	0.01	0.02	0.07	0.20	37.1%	27.2%	3.2%	1.7%	4.3%	12.5%	37.1%
98			158		5	0.56	0.01	0.00	0.01	0.19	0.41		100.0%	1.6%	0.7%	1.1%	33.3%	73.9%	0.25	0.01	0.00	0.01	0.10	0.20	45.3%	45.3%	1.4%	0.5%	0.9%	17.5%	36.5%
99			159		5	0.54	0.01	0.00	0.01	0.19	0.39		100.0%	2.6%	0.6%	1.1%	34.0%	71.1%	0.23	0.01	0.00	0.01	0.09	0.22	41.9%	41.9%	2.4%	0.6%	0.9%	16.7%	40.4%
100			160		5	0.53	0.01	0.00	0.02	0.17	0.42		100.0%	1.7%	0.4%	3.2%	33.0%	79.9%	0.21	0.01	0.00	0.01	0.08	0.26	49.3%	40.2%	1.3%	0.4%	2.5%	15.6%	49.3%
101			161		5	0.51	0.01	0.02	0.01	0.23	0.58		88.0%	1.6%	3.1%	1.4%	39.1%	100.0%	0.15	0.01	0.02	0.01	0.11	0.25	42.5%	26.7%	1.0%	2.6%	1.0%	18.8%	42.5%
102			166		5	0.49	0.01	0.01	0.02	0.16	0.37		100.0%	2.9%	1.2%	3.7%	33.7%	76.8%	0.20	0.01	0.01	0.02	0.08	0.16	41.3%	41.3%	2.7%	1.0%	3.1%	16.8%	32.9%
103			167		5	0.55	0.01	0.00	0.01	0.19	0.39		100.0%	2.0%	0.2%	1.1%	33.8%	69.8%	0.24	0.01	0.00	0.01	0.10	0.22	44.1%	44.1%	1.8%	0.2%	0.9%	17.2%	39.6%
104			168		5	0.54	0.02	0.00	0.01	0.18	0.41		100.0%	2.9%	0.6%	1.8%	32.6%	75.7%	0.21	0.01	0.00	0.01	0.09	0.24	44.9%	39.4%	2.6%	0.6%	1.3%	16.9%	44.9%
105			169		5	0.54	0.01	0.01	0.01	0.19	0.45		100.0%	1.1%	2.2%	2.0%	35.9%	83.8%	0.19	0.01	0.01	0.01	0.07	0.23	42.6%	35.6%	0.9%	1.9%	1.7%	13.6%	42.6%
106			1	129	2	0.39	0.01	0.00	0.01	0.16	0.37		100.0%	1.3%	0.8%	2.3%	40.7%	94.6%	0.15	0.00	0.00	0.01	0.05	0.14	38.4%	38.4%	1.0%	0.8%	2.0%	12.8%	35.5%
107			3	131	2	0.42	0.01	0.01	0.01	0.12	0.21		100.0%	2.1%	1.4%	2.8%	28.0%	50.5%	0.15	0.01	0.01	0.01	0.04	0.09	36.3%	36.3%	1.7%	1.2%	2.1%	10.4%	20.1%
108			5	133	2	0.45	0.01	0.01	0.01	0.12	0.22		100.0%	1.5%	1.5%	3.1%	27.4%	49.3%	0.19	0.01	0.01	0.01	0.04	0.09	41.6%	41.6%	1.3%	1.3%	2.4%	9.5%	20.6%
109			7	135	2	0.39	0.01	0.00	0.01	0.12	0.27		100.0%	2.1%	0.8%	2.8%	31.5%	69.2%	0.15	0.01	0.00	0.01	0.04	0.12	39.0%	39.0%	1.8%	0.8%	2.1%	9.2%	30.0%
110			9	137	2	0.44	0.01	0.01	0.01	0.17	0.29		100.0%	1.4%	1.1%	2.9%	38.1%	64.8%	0.20	0.01	0.00	0.01	0.06	0.10	44.2%	44.2%	1.1%	0.9%	2.5%	12.9%	22.3%
111			14	142	4	0.87	0.01	0.01	0.03	0.39	0.53		100.0%	1.3%	1.3%	3.6%	44.2%	60.9%	0.32	0.01	0.01	0.02	0.13	0.22	36.8%	36.8%	1.0%	1.0%	2.8%	15.4%	25.5%
112			15	143	4	0.89	0.01	0.01	0.02	0.24	0.60		100.0%	1.5%	0.6%	2.0%	27.2%	67.0%	0.48	0.01	0.00	0.01	0.10	0.27	53.9%	53.9%	1.3%	0.4%	1.6%	11.5%	30.3%
113			16	144	4	0.86	0.02	0.01	0.03	0.31	0.55		100.0%	2.0%	0.7%	3.8%	36.1%	63.5%	0.50	0.02	0.01	0.03	0.13	0.21	58.2%	58.2%	1.7%	0.7%	2.9%	15.3%	24.0%
114			17	145	4	0.85	0.01	0.01	0.04	0.28	0.52		100.0%	1.1%	1.6%	4.1%	33.3%	61.1%	0.28	0.01	0.01	0.03	0.13	0.22	33.2%	33.2%	0.9%	1.4%	3.6%	15.1%	25.3%
115			21	149	4	0.95	0.01	0.01	0.02	0.27	0.55		100.0%	1.3%	1.1%	2.0%	28.1%	57.8%	0.46	0.01	0.01	0.02	0.11	0.26	49.0%	49.0%	1.1%	1.0%	1.6%	11.7%	27.0%
116			22	150	4	0.74	0.01	0.01	0.01	0.23	0.55		100.0%	1.9%	0.7%	1.6%	30.9%	74.5%	0.44	0.01	0.00	0.01	0.10	0.23	59.1%	59.1%	1.6%	0.5%	1.2%	13.4%	30.8%
117			23	151	4	0.94	0.01	0.01	0.03	0.29	0.48		100.0%	1.0%	1.3%	3.5%	30.7%	50.4%	0.44	0.01	0.01	0.03	0.12	0.16	46.8%	46.8%	0.6%	1.2%	2.8%	12.6%	16.7%
118			29	157	10	2.49	0.03	0.03	0.11	1.06	1.17		100.0%	1.1%	1.3%	4.4%	42.5%	47.2%	1.11	0.03	0.03	0.09	0.47	0.45	44.4%	44.4%	1.0%	1.0%	3.8%	18.7%	18.0%
119			30	158	10	2.20	0.04	0.01	0.03	0.95	1.65		100.0%	1.8%	0.4%	1.2%	43.1%	75.3%	1.51	0.04	0.01	0.02	0.45	0.78	69.0%	69.0%	1.6%	0.3%	1.0%	20.6%	35.6%
120			31	159	10	1.81	0.05	0.01	0.02	0.64	1.60		100.0%	2.9%	0.5%	1.3%	35.1%	88.0%	1.23	0.05	0.01	0.02	0.31	0.87	68.0%	68.0%	2.6%	0.4%	1.0%	17.3%	48.0%
121			32	160	10	2.57	0.04	0.01	0.04	1.10	1.28		100.0%	1.6%	0.4%	1.5%	42.8%	50.0%	1.69	0.04	0.01	0.03	0.53	0.64	65.9%	65.9%	1.4%	0.3%	1.2%	20.6%	24.7%
122			33	161	10	2.16	0.02	0.06	0.05	1.04	1.39		100.0%	0.8%	2.7%	2.3%	48.3%	64.3%	0.92	0.02	0.05	0.04	0.46	0.70	42.5%	42.5%	0.8%	2.3%	1.8%	21.3%	32.2%
123			38	166	10	2.36	0.03	0.03	0.07	0.99	1.18		100.0%	1.1%	1.1%	2.8%	41.8%	49.7%	1.26	0.02	0.02	0.05	0.47	0.48	53.2%	53.2%	1.0%	0.8%	2.3%	19.8%	20.4%
124			39	167	10	1.95	0.05	0.01	0.02	0.68	1.69		100.0%	2.5%	0.3%	1.2%	34.5%	86.5%	1.34	0.04	0.00	0.02	0.33	0.89	68.3%	68.3%	2.2%	0.2%	0.9%	16.7%	45.5%
125			40	168	10	1.92	0.05	0.01	0.04	0.74	1.57		100.0%	2.8%	0.6%	2.2%	38.7%	81.8%	1.28	0.05	0.01	0.03	0.37	0.80	66.9%	66.9%	2.5%	0.5%	1.6%	19.1%	41.7%
126			41	169	10	2.91	0.03	0.03	0.06	1.26	1.26		100.0%	0.9%	0.9%	2.1%	43.2%	43.2%	1.63	0.02	0.02	0.05	0.58	0.55	56.1%	56.1%	0.7%	0.7%	1.7%	19.9%	19.0%

- N–patch Mid CH

													max ratio out of all beams												max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							**100.0%**	**3.5%**	**3.4%**	**5.8%**	**46.1%**	**100.0%**	4cm2 PD(mW/cm2) at 10mm evaluation distance						**70.8%**	**70.8%**	**3.5%**	**3.0%**	**4.7%**	**20.7%**	**51.6%**
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
64	N	Patch	1		1	**0.25**	0.00	0.00	0.00	0.07	0.15		100.0%	0.8%	0.8%	1.6%	28.4%	60.0%	**0.11**	0.00	0.00	0.00	0.02	0.06	44.0%	44.0%	0.8%	0.4%	1.2%	9.6%	22.4%
65			3		1	**0.28**	0.00	0.00	0.01	0.06	0.14		100.0%	1.1%	0.7%	2.9%	21.8%	52.0%	**0.09**	0.00	0.00	0.01	0.03	0.06	34.2%	34.2%	1.1%	0.4%	2.2%	9.1%	21.8%
66			5		1	**0.26**	0.00	0.00	0.01	0.06	0.13		100.0%	0.8%	0.4%	2.3%	22.4%	47.5%	**0.11**	0.00	0.00	0.01	0.02	0.05	42.6%	42.6%	0.8%	0.4%	1.9%	7.6%	17.5%
67			7		1	**0.29**	0.00	0.00	0.00	0.05	0.18		100.0%	0.7%	0.7%	1.0%	18.1%	62.7%	**0.11**	0.00	0.00	0.00	0.02	0.07	36.6%	36.6%	0.7%	0.7%	1.0%	5.6%	24.4%
68			9		1	**0.29**	0.00	0.00	0.01	0.08	0.14		100.0%	0.7%	0.7%	2.1%	27.8%	48.1%	**0.13**	0.00	0.00	0.00	0.03	0.05	43.0%	43.0%	0.7%	0.3%	1.4%	9.3%	17.9%
69			14		2	**0.56**	0.00	0.01	0.02	0.20	0.20		100.0%	0.5%	0.9%	3.4%	35.8%	35.1%	**0.21**	0.00	0.00	0.02	0.08	0.08	38.5%	38.5%	0.4%	0.7%	2.7%	14.0%	14.7%
70			15		2	**0.55**	0.01	0.00	0.01	0.13	0.38		100.0%	0.9%	0.2%	1.6%	24.2%	68.2%	**0.29**	0.00	0.00	0.01	0.05	0.17	51.8%	51.8%	0.7%	0.2%	1.1%	8.8%	30.0%
71			16		2	**0.48**	0.01	0.00	0.01	0.14	0.32		100.0%	1.0%	0.4%	2.3%	29.4%	66.9%	**0.28**	0.01	0.00	0.01	0.06	0.14	57.5%	57.5%	1.0%	0.4%	1.7%	11.7%	28.1%
72			17		2	**0.47**	0.00	0.01	0.02	0.13	0.22		100.0%	0.6%	1.3%	3.4%	27.7%	47.9%	**0.17**	0.00	0.01	0.01	0.04	0.08	35.4%	35.4%	0.4%	1.1%	3.0%	9.2%	16.5%
73			21		2	**0.57**	0.00	0.00	0.01	0.16	0.34		100.0%	0.7%	0.3%	2.1%	28.0%	59.2%	**0.27**	0.00	0.00	0.01	0.06	0.15	47.4%	47.4%	0.7%	0.3%	1.4%	10.8%	26.5%
74			22		2	**0.47**	0.01	0.00	0.00	0.13	0.39		100.0%	1.3%	0.4%	0.6%	26.6%	82.2%	**0.30**	0.01	0.00	0.00	0.04	0.15	62.6%	62.6%	1.1%	0.2%	0.6%	9.3%	32.6%
75			23		2	**0.62**	0.00	0.01	0.01	0.21	0.23		100.0%	0.6%	1.0%	2.1%	33.7%	37.7%	**0.27**	0.00	0.01	0.01	0.08	0.09	43.9%	43.9%	0.5%	0.8%	1.6%	12.6%	13.8%
76			29		5	**1.67**	0.01	0.01	0.07	0.66	0.57		100.0%	0.5%	0.4%	4.1%	39.2%	34.4%	**0.89**	0.01	0.01	0.05	0.28	0.26	53.4%	53.4%	0.4%	0.4%	2.9%	16.8%	15.5%
77			30		5	**1.24**	0.02	0.00	0.01	0.44	0.88		100.0%	1.4%	0.2%	1.0%	35.4%	70.7%	**0.88**	0.02	0.00	0.01	0.20	0.41	70.3%	70.3%	1.2%	0.2%	0.8%	15.9%	32.6%
78			31		5	**1.09**	0.02	0.00	0.01	0.26	1.04		100.0%	1.8%	0.4%	0.9%	23.6%	95.1%	**0.76**	0.02	0.00	0.01	0.12	0.51	69.9%	69.9%	1.6%	0.3%	0.7%	11.1%	47.0%
79			32		5	**1.23**	0.02	0.01	0.01	0.53	0.75		100.0%	1.6%	0.5%	1.0%	42.8%	61.0%	**0.86**	0.02	0.01	0.01	0.25	0.33	70.1%	70.1%	1.4%	0.4%	0.9%	20.7%	26.4%
80			33		5	**1.42**	0.01	0.03	0.02	0.52	0.53		100.0%	0.4%	2.0%	1.6%	36.7%	37.5%	**0.62**	0.01	0.02	0.02	0.20	0.24	44.1%	44.1%	0.4%	1.7%	1.2%	14.4%	16.7%
81			38		5	**1.56**	0.01	0.01	0.05	0.60	0.59		100.0%	0.9%	0.6%	3.1%	38.6%	37.7%	**0.89**	0.01	0.01	0.03	0.29	0.28	57.0%	57.0%	0.8%	0.4%	2.0%	18.3%	18.0%
82			39		5	**1.11**	0.02	0.00	0.01	0.28	1.03		100.0%	1.8%	0.3%	1.1%	25.6%	92.9%	**0.77**	0.02	0.00	0.01	0.13	0.49	69.6%	69.6%	1.5%	0.2%	0.7%	11.5%	44.4%
83			40		5	**1.14**	0.02	0.01	0.01	0.33	1.04		100.0%	1.6%	0.4%	0.8%	28.7%	90.8%	**0.81**	0.02	0.00	0.01	0.15	0.48	70.8%	70.8%	1.3%	0.4%	0.5%	13.2%	42.2%
84			41		5	**1.46**	0.01	0.01	0.03	0.62	0.57		100.0%	0.9%	0.7%	1.9%	42.3%	39.3%	**0.85**	0.01	0.01	0.02	0.29	0.27	58.1%	58.1%	0.8%	0.6%	1.6%	19.9%	18.6%
85			129		1	0.09	0.00	0.00	0.00	0.02	**0.12**		68.5%	1.6%	0.8%	3.2%	18.5%	100.0%	0.02	0.00	0.00	0.00	0.01	**0.05**	36.3%	17.7%	1.6%	0.8%	2.4%	6.5%	36.3%
86			131		1	**0.10**	0.00	0.00	0.00	0.03	0.06		100.0%	2.0%	2.0%	3.0%	31.3%	61.6%	**0.03**	0.00	0.00	0.00	0.01	0.02	27.3%	27.3%	2.0%	1.0%	3.0%	12.1%	24.2%
87			133		1	**0.11**	0.00	0.00	0.00	0.02	0.07		100.0%	1.9%	2.9%	2.9%	22.9%	69.5%	**0.03**	0.00	0.00	0.00	0.01	0.03	30.5%	30.5%	1.9%	2.9%	2.9%	8.6%	28.6%
88			135		1	**0.11**	0.00	0.00	0.00	0.03	0.07		100.0%	1.9%	0.9%	2.8%	30.6%	63.0%	**0.04**	0.00	0.00	0.00	0.01	0.03	35.2%	35.2%	1.9%	0.9%	2.8%	12.0%	27.8%
89			137		1	**0.09**	0.00	0.00	0.01	0.03	0.07		100.0%	3.5%	2.3%	5.8%	38.4%	80.2%	**0.03**	0.00	0.00	0.00	0.01	0.03	38.4%	38.4%	3.5%	1.2%	4.7%	15.1%	33.7%
90			142		2	0.14	0.00	0.00	0.01	0.06	**0.20**		71.6%	2.0%	2.0%	4.5%	30.8%	100.0%	0.04	0.00	0.00	0.01	0.02	**0.08**	38.8%	21.9%	2.0%	1.5%	3.5%	10.4%	38.8%
91			143		2	**0.24**	0.00	0.00	0.00	0.08	0.15		100.0%	1.7%	0.8%	1.7%	33.1%	62.8%	**0.10**	0.00	0.00	0.00	0.03	0.08	41.0%	41.0%	1.3%	0.8%	1.3%	14.2%	34.3%
92			144		2	**0.22**	0.00	0.00	0.01	0.07	0.14		100.0%	1.4%	1.9%	4.2%	32.6%	66.5%	**0.07**	0.00	0.00	0.01	0.03	0.05	34.0%	34.0%	1.4%	1.9%	3.3%	11.6%	23.7%
93			145		2	0.17	0.00	0.00	0.01	0.06	**0.18**		95.5%	1.1%	2.2%	5.0%	33.0%	100.0%	0.05	0.00	0.00	0.01	0.03	**0.08**	41.9%	25.7%	1.1%	1.7%	3.9%	14.0%	41.9%
94			149		2	**0.20**	0.00	0.00	0.01	0.07	0.12		100.0%	2.0%	2.0%	4.5%	34.5%	61.5%	**0.08**	0.00	0.00	0.01	0.03	0.07	39.0%	39.0%	1.5%	2.0%	3.5%	13.0%	33.0%
95			150		2	**0.25**	0.00	0.00	0.00	0.08	0.16		100.0%	1.6%	0.8%	1.2%	31.0%	64.7%	**0.10**	0.00	0.00	0.00	0.03	0.08	40.9%	40.9%	1.6%	0.4%	0.8%	13.5%	32.5%
96			151		2	**0.21**	0.01	0.01	0.01	0.05	0.16		100.0%	2.4%	2.8%	3.8%	23.7%	75.8%	**0.07**	0.00	0.01	0.01	0.02	0.06	34.1%	34.1%	1.9%	2.4%	2.8%	9.0%	29.9%
97			157		5	0.38	0.01	0.01	0.01	0.15	**0.56**		68.5%	2.5%	1.8%	2.5%	26.3%	100.0%	0.14	0.01	0.01	0.01	0.07	**0.20**	36.0%	25.5%	2.0%	1.4%	2.2%	11.9%	36.0%
98			158		5	**0.57**	0.01	0.01	0.01	0.19	0.42		100.0%	2.3%	0.9%	1.2%	32.9%	73.3%	**0.26**	0.01	0.01	0.01	0.10	0.21	45.9%	45.9%	1.9%	0.9%	0.9%	17.3%	37.3%
99			159		5	**0.54**	0.01	0.00	0.01	0.19	0.36		100.0%	2.6%	0.4%	1.1%	34.5%	67.0%	**0.23**	0.01	0.00	0.01	0.10	0.21	42.9%	42.9%	2.4%	0.4%	0.9%	17.6%	38.2%
100			160		5	**0.50**	0.01	0.00	0.02	0.16	0.40		100.0%	2.0%	0.8%	3.2%	31.5%	80.8%	**0.21**	0.01	0.00	0.01	0.07	0.20	43.0%	43.0%	1.8%	0.6%	2.4%	14.3%	41.2%
101			161		5	**0.60**	0.01	0.02	0.01	0.20	0.58		100.0%	1.8%	3.4%	1.3%	32.8%	97.5%	0.18	0.01	0.02	0.01	0.09	**0.26**	42.9%	29.7%	1.2%	3.0%	1.0%	14.3%	42.9%
102			166		5	0.48	0.02	0.01	0.01	0.16	**0.48**		99.2%	3.1%	1.9%	2.5%	33.4%	100.0%	**0.20**	0.01	0.01	0.01	0.09	0.18	41.1%	41.1%	2.3%	1.5%	1.7%	17.6%	36.5%
103			167		5	**0.56**	0.01	0.00	0.01	0.19	0.37		100.0%	2.3%	0.4%	0.9%	33.9%	65.6%	**0.26**	0.01	0.00	0.00	0.10	0.22	45.9%	45.9%	2.3%	0.2%	0.7%	17.6%	40.0%
104			168		5	**0.53**	0.01	0.00	0.01	0.18	0.35		100.0%	2.7%	0.6%	1.3%	34.1%	65.9%	**0.21**	0.01	0.00	0.01	0.09	**0.21**	40.3%	40.3%	2.5%	0.4%	1.1%	17.6%	40.3%
105			169		5	**0.59**	0.01	0.01	0.01	0.16	0.51		100.0%	1.0%	2.2%	2.4%	26.2%	85.8%	0.22	0.01	0.01	0.01	0.06	**0.26**	43.3%	37.2%	1.0%	2.0%	1.9%	9.8%	43.3%
106			1	129	2	0.36	0.01	0.00	0.01	0.14	**0.42**		86.3%	1.4%	1.0%	2.2%	33.2%	100.0%	0.14	0.01	0.00	0.01	0.04	**0.16**	37.3%	34.1%	1.4%	0.7%	1.7%	10.6%	37.3%
107			3	131	2	**0.42**	0.01	0.01	0.01	0.14	0.24		100.0%	1.9%	1.4%	3.3%	32.1%	57.2%	**0.14**	0.01	0.01	0.01	0.05	0.10	33.0%	33.0%	1.4%	1.2%	2.6%	11.4%	23.3%
108			5	133	2	**0.41**	0.01	0.01	0.01	0.11	0.23		100.0%	1.2%	1.7%	3.2%	27.3%	57.0%	**0.16**	0.00	0.01	0.01	0.04	0.10	38.8%	38.8%	1.0%	1.5%	2.5%	9.1%	23.8%
109			7	135	2	**0.43**	0.01	0.01	0.01	0.12	0.30		100.0%	1.2%	1.2%	2.1%	27.5%	70.6%	**0.15**	0.01	0.00	0.01	0.03	0.13	36.0%	36.0%	1.2%	0.9%	1.6%	7.5%	30.8%
110			9	137	2	**0.43**	0.01	0.01	0.01	0.15	0.30		100.0%	1.4%	1.2%	2.6%	35.1%	69.3%	**0.18**	0.01	0.01	0.01	0.05	0.11	42.6%	42.6%	1.2%	1.2%	1.9%	11.5%	25.8%
111			14	142	4	**0.88**	0.01	0.01	0.03	0.41	0.55		100.0%	0.8%	1.6%	3.6%	46.1%	62.8%	**0.31**	0.01	0.01	0.03	0.15	0.23	34.9%	34.9%	0.7%	1.3%	3.0%	16.7%	26.6%
112			15	143	4	**0.95**	0.01	0.01	0.02	0.23	0.64		100.0%	1.3%	0.6%	1.7%	24.4%	67.3%	**0.49**	0.01	0.01	0.01	0.09	0.33	52.0%	52.0%	1.3%	0.5%	1.4%	9.7%	34.5%
113			16	144	4	**0.80**	0.01	0.01	0.03	0.23	0.55		100.0%	1.1%	1.3%	3.6%	28.8%	68.8%	**0.44**	0.01	0.01	0.02	0.09	0.24	55.3%	55.3%	1.0%	1.1%	2.8%	11.3%	30.3%
114			17	145	4	**0.76**	0.01	0.02	0.03	0.27	0.59		100.0%	1.1%	2.0%	4.0%	35.2%	77.9%	**0.24**	0.01	0.01	0.03	0.10	0.24	32.3%	32.3%	0.8%	1.7%	3.6%	13.8%	32.1%
115			21	149	4	**1.00**	0.01	0.01	0.02	0.28	0.57		100.0%	1.0%	0.9%	2.0%	28.2%	57.0%	**0.45**	0.01	0.01	0.02	0.11	0.29	45.6%	45.6%	0.8%	0.8%	1.7%	10.6%	28.8%
116			22	150	4	**0.76**	0.02	0.01	0.01	0.19	0.61		100.0%	2.2%	0.7%	1.2%	24.9%	79.9%	**0.44**	0.02	0.00	0.01	0.08	0.28	58.3%	58.3%	2.1%	0.5%	0.9%	10.6%	36.9%
117			23	151	4	**0.92**	0.01	0.01	0.03	0.28	0.43		100.0%	1.1%	1.5%	3.5%	30.7%	47.1%	**0.45**	0.01	0.01	0.03	0.11	0.16	49.0%	49.0%	1.0%	1.3%	2.8%	12.1%	16.9%
118			29	157	10	**2.74**	0.04	0.03	0.10	1.15	1.18		100.0%	1.3%	1.1%	3.6%	41.9%	43.3%	**1.33**	0.03	0.03	0.08	0.48	0.46	48.6%	48.6%	1.0%	0.9%	2.8%	17.5%	17.0%
119			30	158	10	**2.13**	0.05	0.01	0.02	0.81	1.79		100.0%	2.3%	0.4%	1.0%	38.2%	84.1%	**1.43**	0.04	0.01	0.02	0.40	0.86	67.1%	67.1%	1.9%	0.4%	0.8%	18.9%	40.3%
120			31	159	10	**1.89**	0.06	0.01	0.02	0.55	1.78		100.0%	3.2%	0.4%	1.1%	29.1%	94.2%	**1.25**	0.05	0.01	0.02	0.28	0.98	65.9%	65.9%	2.8%	0.4%	0.9%	14.9%	51.6%
121			32	160	10	**2.05**	0.04	0.01	0.04	0.86	1.22		100.0%	2.0%	0.6%	2.0%	42.0%	59.5%	**1.39**	0.03	0.01	0.03	0.41	0.63	67.6%	67.6%	1.7%	0.4%	1.6%	20.1%	30.9%
122			33	161	10	**2.39**	0.02	0.08	0.04	0.93	1.53		100.0%	0.7%	3.1%	1.5%	38.7%	63.8%	**1.03**	0.01	0.06	0.03	0.37	0.74	43.0%	43.0%	0.5%	2.6%	1.2%	15.5%	30.8%
123			38	166	10	**2.40**	0.04	0.03	0.06	0.97	1.11		100.0%	1.8%	1.3%	2.5%	40.6%	46.2%	**1.28**	0.03	0.03	0.04	0.45	0.46	53.4%	53.4%	1.4%	1.1%	1.8%	18.9%	19.0%
124			39	167	10	**1.98**	0.05	0.00	0.03	0.60	1.84		100.0%	2.7%	0.2%	1.3%	30.6%	93.1%	**1.34**	0.05	0.00	0.02	0.30	0.98	67.7%	67.7%	2.3%	0.2%	0.8%	14.9%	49.5%
125			40	168	10	**1.87**	0.05	0.01	0.03	0.63	1.70		100.0%	2.7%	0.6%	1.5%	33.9%	91.3%	**1.17**	0.04	0.01	0.02	0.33	0.92	62.6%	62.6%	2.4%	0.5%	1.1%	17.4%	49.1%
126			41	169	10	**2.62**	0.03	0.03	0.05	1.03	1.26		100.0%	1.2%	1.2%	2.0%	39.3%	48.0%	**1.47**	0.02	0.03	0.05	0.46	0.60	56.2%	56.2%	0.9%	1.0%	1.8%	17.6%	22.9%

- N–patch High CH

													max ratio out of all beams												max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							**100.0%**	**3.0%**	**3.0%**	**5.9%**	**42.6%**	**100.0%**	4cm2 PD(mW/cm2) at 10mm evaluation distance						**70.3%**	**70.3%**	**2.6%**	**2.7%**	**4.7%**	**19.3%**	**53.8%**
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
64	N	Patch	1		1	**0.26**	0.00	0.00	0.01	0.06	0.16		100.0%	0.8%	0.8%	2.3%	23.4%	62.1%	**0.11**	0.00	0.00	0.00	0.02	0.06	41.8%	41.8%	0.8%	0.8%	1.5%	7.7%	24.5%
65			3		1	**0.29**	0.00	0.00	0.01	0.05	0.15		100.0%	0.7%	0.7%	2.4%	17.8%	51.6%	**0.10**	0.00	0.00	0.01	0.02	0.07	34.1%	34.1%	0.7%	0.3%	2.1%	7.0%	23.3%
66			5		1	**0.26**	0.00	0.00	0.01	0.06	0.13		100.0%	1.2%	0.4%	2.7%	22.3%	51.2%	**0.11**	0.00	0.00	0.01	0.02	0.05	42.3%	42.3%	0.8%	0.4%	2.3%	6.9%	18.5%
67			7		1	**0.30**	0.00	0.00	0.00	0.05	0.19		100.0%	0.7%	0.7%	1.3%	16.8%	63.0%	**0.11**	0.00	0.00	0.00	0.02	0.08	35.0%	35.0%	0.7%	0.7%	1.0%	5.6%	26.1%
68			9		1	**0.29**	0.00	0.00	0.01	0.07	0.16		100.0%	0.7%	0.3%	2.4%	23.9%	53.6%	**0.13**	0.00	0.00	0.01	0.02	0.06	44.0%	44.0%	0.7%	0.3%	1.7%	7.8%	20.1%
69			14		2	**0.57**	0.00	0.01	0.02	0.17	0.20		100.0%	0.4%	0.9%	3.2%	30.5%	34.9%	**0.20**	0.00	0.00	0.01	0.07	0.09	35.9%	35.9%	0.4%	0.7%	2.5%	11.8%	15.5%
70			15		2	**0.57**	0.00	0.00	0.01	0.12	0.41		100.0%	0.7%	0.2%	1.6%	20.2%	71.9%	**0.30**	0.00	0.00	0.01	0.04	0.19	52.5%	52.5%	0.5%	0.2%	1.0%	6.8%	32.6%
71			16		2	**0.52**	0.00	0.00	0.01	0.15	0.33		100.0%	0.8%	0.4%	2.1%	28.4%	62.7%	**0.28**	0.00	0.00	0.01	0.05	0.15	54.8%	54.8%	0.6%	0.4%	1.7%	10.4%	29.2%
72			17		2	**0.49**	0.00	0.01	0.01	0.14	0.23		100.0%	0.4%	1.2%	2.7%	28.5%	46.2%	**0.18**	0.00	0.01	0.01	0.04	0.09	36.8%	36.8%	0.4%	1.0%	2.1%	8.8%	18.7%
73			21		2	**0.59**	0.00	0.00	0.01	0.14	0.37		100.0%	0.7%	0.2%	2.0%	23.8%	62.1%	**0.29**	0.00	0.00	0.01	0.05	0.17	48.6%	48.6%	0.5%	0.2%	1.5%	8.7%	28.5%
74			22		2	**0.50**	0.01	0.00	0.00	0.11	0.42		100.0%	1.0%	0.4%	0.6%	21.5%	84.9%	**0.30**	0.00	0.00	0.00	0.04	0.18	59.6%	59.6%	0.8%	0.2%	0.6%	7.2%	36.7%
75			23		2	**0.65**	0.00	0.01	0.01	0.20	0.26		100.0%	0.6%	0.9%	2.0%	30.8%	40.4%	**0.28**	0.00	0.01	0.01	0.08	0.10	42.5%	42.5%	0.5%	0.8%	1.5%	11.6%	16.0%
76			29		5	**1.62**	0.01	0.00	0.07	0.60	0.59		100.0%	0.7%	0.2%	4.4%	36.9%	36.5%	**0.88**	0.01	0.00	0.05	0.26	0.27	54.1%	54.1%	0.5%	0.2%	3.2%	15.8%	16.4%
77			30		5	**1.23**	0.02	0.00	0.01	0.38	0.98		100.0%	1.3%	0.2%	0.8%	30.8%	80.0%	**0.86**	0.01	0.00	0.01	0.17	0.45	70.3%	70.3%	1.1%	0.1%	0.7%	13.8%	36.5%
78			31		5	**1.11**	0.02	0.00	0.01	0.22	1.08		100.0%	1.7%	0.3%	0.8%	19.9%	97.7%	**0.75**	0.02	0.00	0.01	0.10	0.54	68.0%	68.0%	1.4%	0.2%	0.6%	9.0%	49.0%
79			32		5	**1.23**	0.02	0.00	0.02	0.45	0.84		100.0%	1.6%	0.3%	1.4%	37.1%	68.2%	**0.85**	0.02	0.00	0.01	0.21	0.41	69.6%	69.6%	1.2%	0.3%	1.1%	17.5%	33.1%
80			33		5	**1.57**	0.00	0.03	0.03	0.61	0.53		100.0%	0.3%	1.7%	2.0%	38.4%	33.7%	**0.67**	0.00	0.02	0.02	0.23	0.26	42.6%	42.6%	0.3%	1.4%	1.5%	14.7%	16.3%
81			38		5	**1.49**	0.01	0.01	0.05	0.53	0.63		100.0%	0.9%	0.5%	3.2%	35.4%	42.5%	**0.87**	0.01	0.01	0.03	0.24	0.29	58.4%	58.4%	0.8%	0.4%	2.2%	16.1%	19.2%
82			39		5	**1.12**	0.01	0.00	0.01	0.25	1.06		100.0%	1.3%	0.2%	1.1%	22.6%	94.6%	**0.76**	0.01	0.00	0.01	0.11	0.52	67.7%	67.7%	1.1%	0.2%	0.7%	9.9%	46.0%
83			40		5	**1.21**	0.02	0.01	0.01	0.29	1.15		100.0%	1.4%	0.6%	0.7%	23.5%	94.4%	**0.83**	0.01	0.01	0.01	0.13	0.56	68.5%	68.5%	1.2%	0.5%	0.6%	10.5%	45.7%
84			41		5	**1.45**	0.01	0.01	0.03	0.60	0.58		100.0%	0.9%	0.4%	2.1%	41.7%	39.9%	**0.83**	0.01	0.01	0.02	0.27	0.29	57.0%	57.0%	0.8%	0.4%	1.5%	18.7%	19.8%
85			129		1	0.09	0.00	0.00	0.00	0.02	**0.11**		75.4%	1.8%	0.9%	3.5%	18.4%	100.0%	0.02	0.00	0.00	0.00	0.01	**0.04**	37.7%	19.3%	1.8%	0.9%	2.6%	6.1%	37.7%
86			131		1	**0.10**	0.00	0.00	0.00	0.03	0.05		100.0%	2.0%	1.0%	3.0%	30.0%	53.0%	**0.03**	0.00	0.00	0.00	0.01	0.02	28.0%	28.0%	1.0%	1.0%	2.0%	9.0%	20.0%
87			133		1	**0.11**	0.00	0.00	0.00	0.03	0.08		100.0%	1.8%	2.7%	3.6%	26.4%	70.9%	**0.03**	0.00	0.00	0.00	0.01	0.03	30.9%	30.9%	1.8%	2.7%	2.7%	8.2%	26.4%
88			135		1	**0.11**	0.00	0.00	0.00	0.03	0.07		100.0%	1.8%	1.8%	3.6%	29.7%	59.5%	**0.04**	0.00	0.00	0.00	0.01	0.03	33.3%	33.3%	1.8%	0.9%	2.7%	10.8%	24.3%
89			137		1	**0.09**	0.00	0.00	0.01	0.03	0.07		100.0%	2.2%	1.1%	5.6%	34.8%	73.0%	**0.03**	0.00	0.00	0.00	0.01	0.03	34.8%	34.8%	2.2%	1.1%	4.5%	15.7%	28.1%
90			142		2	0.15	0.00	0.00	0.01	0.06	**0.17**		86.5%	1.8%	1.8%	5.9%	34.1%	100.0%	0.05	0.00	0.00	0.01	0.02	**0.07**	40.6%	27.6%	1.2%	1.8%	4.1%	11.8%	40.6%
91			143		2	**0.23**	0.00	0.00	0.00	0.08	0.14		100.0%	1.8%	0.9%	1.8%	35.5%	59.2%	**0.09**	0.00	0.00	0.00	0.03	0.08	41.2%	41.2%	1.8%	0.4%	1.3%	14.9%	33.8%
92			144		2	**0.22**	0.00	0.00	0.01	0.06	0.16		100.0%	1.4%	1.8%	4.1%	28.8%	70.7%	**0.07**	0.00	0.00	0.01	0.02	0.06	33.3%	33.3%	1.4%	1.4%	3.2%	10.8%	26.1%
93			145		2	**0.17**	0.00	0.00	0.01	0.05	0.16		100.0%	1.2%	1.8%	5.9%	31.2%	92.9%	0.05	0.00	0.00	0.01	0.02	**0.07**	42.9%	27.1%	1.2%	1.8%	4.7%	12.9%	42.9%
94			149		2	**0.19**	0.01	0.00	0.01	0.08	0.11		100.0%	2.6%	2.1%	4.7%	40.5%	57.4%	**0.08**	0.01	0.00	0.01	0.03	0.05	39.5%	39.5%	2.6%	2.1%	3.7%	14.2%	27.9%
95			150		2	**0.25**	0.00	0.00	0.00	0.08	0.16		100.0%	1.2%	0.8%	1.2%	31.1%	62.2%	**0.10**	0.00	0.00	0.00	0.03	0.08	40.6%	40.6%	0.8%	0.8%	0.8%	13.5%	33.5%
96			151		2	**0.24**	0.01	0.01	0.01	0.06	0.19		100.0%	2.5%	2.9%	3.8%	23.0%	77.4%	**0.08**	0.01	0.01	0.01	0.02	0.07	35.1%	35.1%	2.1%	2.5%	2.9%	8.8%	27.2%
97			157		5	0.37	0.01	0.01	0.01	0.16	**0.43**		85.2%	2.8%	2.1%	3.2%	38.1%	100.0%	0.15	0.01	0.01	0.01	0.07	**0.16**	37.8%	34.6%	2.3%	1.9%	2.8%	17.2%	37.8%
98			158		5	**0.53**	0.01	0.01	0.01	0.19	0.36		100.0%	2.3%	1.1%	1.9%	35.0%	68.4%	**0.24**	0.01	0.01	0.01	0.10	0.19	45.4%	45.4%	1.9%	0.9%	1.3%	18.3%	36.0%
99			159		5	**0.54**	0.01	0.00	0.01	0.19	0.34		100.0%	2.1%	0.2%	0.9%	34.8%	62.8%	**0.24**	0.01	0.00	0.00	0.10	0.21	44.3%	44.3%	1.9%	0.2%	0.7%	18.7%	38.9%
100			160		5	**0.51**	0.01	0.00	0.02	0.15	0.37		100.0%	1.6%	0.6%	3.2%	29.4%	73.8%	**0.22**	0.01	0.00	0.01	0.07	0.21	43.6%	43.6%	1.2%	0.6%	2.4%	14.2%	41.4%
101			161		5	**0.63**	0.01	0.02	0.01	0.15	0.58		100.0%	1.7%	3.0%	1.6%	23.8%	91.6%	0.20	0.01	0.02	0.01	0.05	**0.27**	42.1%	31.4%	1.3%	2.7%	1.3%	8.5%	42.1%
102			166		5	**0.44**	0.01	0.01	0.01	0.16	0.44		100.0%	3.0%	1.8%	2.0%	37.3%	99.8%	**0.18**	0.01	0.01	0.01	0.09	0.16	40.9%	40.9%	2.5%	1.6%	1.6%	19.3%	37.3%
103			167		5	**0.56**	0.01	0.00	0.01	0.19	0.35		100.0%	2.0%	0.4%	0.9%	34.5%	62.5%	**0.27**	0.01	0.00	0.00	0.10	0.22	47.2%	47.2%	1.8%	0.4%	0.7%	18.3%	39.5%
104			168		5	**0.53**	0.01	0.00	0.01	0.18	0.33		100.0%	1.7%	0.4%	1.1%	33.8%	62.4%	**0.22**	0.01	0.00	0.00	0.09	0.21	41.0%	41.0%	1.7%	0.4%	0.8%	17.8%	40.5%
105			169		5	**0.59**	0.01	0.01	0.02	0.15	0.50		100.0%	1.5%	1.9%	2.7%	25.0%	85.1%	0.23	0.01	0.01	0.01	0.06	**0.26**	43.6%	39.0%	1.2%	1.7%	2.2%	9.3%	43.6%
106			1	129	2	0.41	0.01	0.01	0.01	0.11	**0.42**		98.1%	1.4%	1.2%	2.2%	27.1%	100.0%	0.14	0.01	0.00	0.01	0.04	**0.17**	39.8%	33.1%	1.2%	1.0%	1.7%	8.4%	39.8%
107			3	131	2	**0.44**	0.01	0.01	0.01	0.13	0.24		100.0%	1.4%	1.1%	2.5%	28.7%	55.2%	**0.14**	0.01	0.00	0.01	0.04	0.11	33.1%	33.1%	1.1%	0.9%	2.3%	9.2%	25.3%
108			5	133	2	**0.44**	0.01	0.01	0.01	0.13	0.24		100.0%	1.6%	1.6%	2.7%	28.9%	55.1%	**0.16**	0.01	0.01	0.01	0.04	0.11	36.9%	36.9%	1.4%	1.4%	2.3%	9.3%	24.6%
109			7	135	2	**0.46**	0.00	0.01	0.01	0.11	0.31		100.0%	0.9%	1.1%	2.2%	24.8%	68.2%	**0.16**	0.00	0.00	0.01	0.03	0.14	34.0%	34.0%	0.9%	0.9%	1.7%	6.8%	29.6%
110			9	137	2	**0.43**	0.01	0.00	0.01	0.13	0.30		100.0%	1.2%	0.9%	2.8%	30.4%	71.0%	**0.17**	0.00	0.00	0.01	0.05	0.12	40.7%	40.7%	0.9%	0.9%	2.3%	10.5%	27.9%
111			14	142	4	**0.87**	0.01	0.02	0.03	0.36	0.50		100.0%	0.6%	1.7%	3.6%	41.8%	57.8%	**0.29**	0.00	0.01	0.03	0.13	0.22	33.9%	33.9%	0.5%	1.5%	2.9%	14.6%	25.5%
112			15	143	4	**0.97**	0.02	0.00	0.02	0.23	0.67		100.0%	1.6%	0.4%	1.8%	23.3%	69.4%	**0.50**	0.01	0.00	0.01	0.08	0.36	51.8%	51.8%	1.4%	0.4%	1.2%	8.4%	37.2%
113			16	144	4	**0.84**	0.01	0.01	0.03	0.22	0.56		100.0%	1.2%	1.1%	3.3%	26.2%	66.4%	**0.44**	0.01	0.01	0.02	0.08	0.27	52.7%	52.7%	1.0%	1.0%	2.4%	10.0%	31.5%
114			17	145	4	**0.80**	0.01	0.02	0.03	0.24	0.55		100.0%	0.7%	1.9%	3.2%	29.2%	68.5%	**0.27**	0.01	0.01	0.02	0.09	0.26	33.0%	33.0%	0.6%	1.6%	2.7%	11.4%	31.8%
115			21	149	4	**1.01**	0.02	0.01	0.02	0.29	0.58		100.0%	1.6%	0.8%	2.4%	28.7%	57.6%	**0.45**	0.01	0.01	0.02	0.11	0.30	44.8%	44.8%	1.4%	0.8%	2.0%	10.4%	29.8%
116			22	150	4	**0.79**	0.01	0.01	0.01	0.17	0.65		100.0%	1.6%	0.6%	1.3%	21.6%	81.8%	**0.46**	0.01	0.00	0.01	0.07	0.33	57.8%	57.8%	1.5%	0.5%	0.9%	9.2%	42.0%
117			23	151	4	**0.98**	0.01	0.02	0.04	0.29	0.50		100.0%	1.0%	1.6%	3.7%	29.3%	50.6%	**0.49**	0.01	0.01	0.03	0.12	0.18	49.5%	49.5%	0.9%	1.4%	2.7%	12.0%	18.4%
118			29	157	10	**2.73**	0.03	0.02	0.10	1.16	1.01		100.0%	1.2%	0.9%	3.8%	42.6%	36.9%	**1.36**	0.03	0.02	0.08	0.48	0.40	49.8%	49.8%	1.0%	0.8%	2.9%	17.6%	14.8%
119			30	158	10	**2.11**	0.04	0.01	0.02	0.76	1.86		100.0%	1.9%	0.4%	1.0%	35.9%	88.3%	**1.40**	0.04	0.01	0.02	0.37	0.91	66.5%	66.5%	1.7%	0.4%	0.8%	17.4%	43.0%
120			31	159	10	**1.99**	0.05	0.01	0.02	0.50	1.91		100.0%	2.3%	0.4%	1.0%	25.3%	96.1%	**1.28**	0.04	0.01	0.01	0.26	1.07	64.5%	64.5%	2.0%	0.3%	0.7%	12.9%	53.8%
121			32	160	10	**2.09**	0.04	0.01	0.04	0.71	1.44		100.0%	2.0%	0.5%	2.1%	34.0%	69.1%	**1.40**	0.04	0.01	0.03	0.35	0.77	67.0%	67.0%	1.7%	0.4%	1.6%	16.5%	36.9%
122			33	161	10	**2.72**	0.02	0.07	0.05	0.95	1.50		100.0%	0.7%	2.4%	1.8%	35.0%	55.0%	**1.17**	0.02	0.06	0.04	0.36	0.77	43.1%	43.1%	0.6%	2.1%	1.4%	13.3%	28.4%
123			38	166	10	**2.29**	0.04	0.03	0.06	0.94	1.08		100.0%	1.9%	1.2%	2.4%	41.0%	47.3%	**1.25**	0.04	0.03	0.04	0.43	0.47	54.5%	54.5%	1.5%	1.1%	1.7%	18.8%	20.3%
124			39	167	10	**2.05**	0.04	0.00	0.02	0.58	1.94		100.0%	1.8%	0.2%	1.0%	28.4%	94.8%	**1.37**	0.03	0.00	0.01	0.28	1.05	66.8%	66.8%	1.5%	0.1%	0.7%	13.9%	51.2%
125			40	168	10	**1.99**	0.04	0.01	0.02	0.59	1.87		100.0%	2.0%	0.7%	1.0%	29.6%	94.0%	**1.21**	0.03	0.01	0.02	0.30	1.06	60.7%	60.7%	1.7%	0.6%	0.9%	15.0%	53.1%
126			41	169	10	**2.67**	0.04	0.02	0.07	0.95	1.34		100.0%	1.4%	0.8%	2.6%	35.8%	50.2%	**1.49**	0.03	0.02	0.05	0.42	0.66	55.7%	55.7%	1.1%	0.7%	1.8%	15.6%	24.8%

Table 7. PD of Ant N – patch antenna (39GHz – n260)

- N–patch Low CH

													max ratio out of all beams												max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)						per Beam Back-off (dB)	100.0%	3.9%	4.2%	10.0%	73.6%	57.1%	4cm2 PD(mW/cm2) at 10mm evaluation distance						73.6%	73.6%	3.4%	3.7%	8.1%	40.5%	33.7%
						S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)		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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
64	N	Patch	1		1	0.28	0.00	0.00	0.01	0.08	0.09		100.0%	0.7%	0.4%	3.6%	28.1%	33.5%	0.10	0.00	0.00	0.01	0.03	0.05	36.3%	36.3%	0.4%	0.4%	3.2%	9.0%	16.5%
65			3		1	0.29	0.00	0.00	0.01	0.07	0.11		100.0%	0.3%	0.7%	2.8%	23.3%	38.0%	0.12	0.00	0.00	0.01	0.02	0.05	40.4%	40.4%	0.3%	0.7%	2.1%	8.0%	17.1%
66			5		1	0.26	0.00	0.00	0.00	0.07	0.11		100.0%	0.8%	0.4%	1.5%	27.8%	42.6%	0.12	0.00	0.00	0.00	0.03	0.05	46.4%	46.4%	0.8%	0.4%	1.1%	10.6%	17.9%
67			7		1	0.30	0.00	0.00	0.01	0.08	0.10		100.0%	0.3%	0.7%	2.7%	27.3%	34.7%	0.12	0.00	0.00	0.01	0.03	0.04	41.4%	41.4%	0.3%	0.3%	2.0%	10.1%	13.1%
68			9		1	0.29	0.00	0.00	0.01	0.08	0.12		100.0%	0.3%	0.3%	3.1%	27.1%	39.5%	0.14	0.00	0.00	0.01	0.03	0.05	46.7%	46.7%	0.3%	0.3%	2.1%	10.3%	16.2%
69			14		2	0.52	0.00	0.00	0.03	0.14	0.18		100.0%	0.8%	0.8%	5.8%	27.4%	35.1%	0.17	0.00	0.00	0.02	0.04	0.07	32.6%	32.6%	0.6%	0.8%	4.5%	8.5%	14.0%
70			15		2	0.56	0.00	0.00	0.01	0.22	0.26		100.0%	0.5%	0.2%	2.3%	39.8%	47.1%	0.35	0.00	0.00	0.01	0.10	0.11	63.4%	63.4%	0.4%	0.2%	1.8%	17.9%	19.5%
71			16		2	0.60	0.00	0.00	0.01	0.19	0.28		100.0%	0.3%	0.3%	1.2%	31.3%	46.6%	0.32	0.00	0.00	0.01	0.08	0.14	54.5%	54.5%	0.3%	0.3%	0.8%	12.9%	22.7%
72			17		2	0.56	0.00	0.01	0.01	0.16	0.23		100.0%	0.4%	0.9%	2.5%	29.3%	41.9%	0.24	0.00	0.01	0.01	0.06	0.12	42.4%	42.4%	0.4%	0.9%	2.0%	10.0%	20.6%
73			21		2	0.49	0.01	0.00	0.02	0.16	0.21		100.0%	1.0%	0.4%	3.3%	31.8%	42.9%	0.24	0.01	0.00	0.01	0.06	0.08	48.2%	48.2%	1.0%	0.4%	2.4%	12.0%	16.7%
74			22		2	0.57	0.00	0.00	0.00	0.20	0.27		100.0%	0.4%	0.2%	0.7%	35.2%	46.8%	0.33	0.00	0.00	0.00	0.08	0.13	58.3%	58.3%	0.4%	0.2%	0.5%	14.7%	22.2%
75			23		2	0.59	0.00	0.00	0.01	0.16	0.27		100.0%	0.3%	0.7%	2.1%	28.0%	45.3%	0.28	0.00	0.00	0.01	0.06	0.13	47.0%	47.0%	0.3%	0.7%	1.5%	10.6%	22.2%
76			29		5	1.31	0.01	0.02	0.13	0.53	0.43		100.0%	0.8%	1.1%	10.0%	40.3%	33.0%	0.40	0.01	0.01	0.11	0.16	0.19	30.6%	30.6%	0.7%	1.1%	8.1%	11.9%	14.5%
77			30		5	0.97	0.01	0.00	0.03	0.37	0.40		100.0%	1.2%	0.4%	3.3%	37.5%	41.2%	0.52	0.01	0.00	0.03	0.16	0.21	53.8%	53.8%	1.1%	0.4%	2.7%	16.1%	21.4%
78			31		5	1.25	0.00	0.00	0.01	0.54	0.54		100.0%	0.3%	0.2%	0.7%	42.8%	42.9%	0.79	0.00	0.00	0.01	0.25	0.27	63.2%	63.2%	0.2%	0.2%	0.6%	20.0%	21.4%
79			32		5	1.33	0.01	0.01	0.01	0.36	0.73		100.0%	0.4%	0.4%	0.7%	26.9%	54.6%	0.73	0.01	0.01	0.01	0.17	0.45	54.9%	54.9%	0.4%	0.4%	0.5%	12.7%	33.7%
80			33		5	1.40	0.01	0.01	0.09	0.45	0.71		100.0%	0.8%	0.8%	6.1%	31.7%	50.9%	0.62	0.01	0.01	0.06	0.20	0.39	44.3%	44.3%	0.4%	0.8%	4.3%	13.9%	27.9%
81			38		5	1.02	0.01	0.01	0.07	0.34	0.43		100.0%	1.1%	0.6%	6.5%	32.8%	42.5%	0.50	0.01	0.01	0.05	0.15	0.21	48.8%	48.8%	0.9%	0.5%	5.3%	14.2%	20.6%
82			39		5	1.12	0.01	0.00	0.03	0.48	0.45		100.0%	0.5%	0.3%	2.7%	42.5%	40.2%	0.67	0.01	0.00	0.02	0.23	0.22	59.4%	59.4%	0.4%	0.3%	2.1%	20.2%	19.9%
83			40		5	1.38	0.01	0.00	0.01	0.51	0.68		100.0%	0.4%	0.2%	0.7%	36.9%	49.4%	0.86	0.00	0.00	0.01	0.23	0.35	62.5%	62.5%	0.3%	0.1%	0.5%	16.8%	25.5%
84			41		5	1.39	0.01	0.01	0.03	0.35	0.71		100.0%	0.6%	0.5%	2.2%	24.9%	51.0%	0.67	0.01	0.01	0.02	0.16	0.46	48.4%	48.4%	0.5%	0.5%	1.7%	11.5%	33.0%
85			129		1	0.15	0.00	0.00	0.01	0.09	0.06	0.30	93.3%	1.2%	1.2%	3.1%	55.6%	37.7%	0.07	0.00	0.00	0.00	0.04	0.03	43.9%	43.9%	1.2%	1.2%	2.5%	22.2%	18.5%
86			131		1	0.20	0.00	0.00	0.01	0.10	0.06		100.0%	1.5%	2.0%	2.5%	50.0%	27.2%	0.10	0.00	0.00	0.00	0.03	0.02	49.5%	49.5%	1.0%	1.5%	2.0%	16.3%	11.9%
87			133		1	0.18	0.00	0.00	0.00	0.08	0.09		100.0%	1.6%	1.1%	1.6%	41.5%	48.6%	0.10	0.00	0.00	0.00	0.03	0.04	51.9%	51.9%	1.6%	1.1%	1.1%	14.8%	21.3%
88			135		1	0.20	0.00	0.00	0.00	0.12	0.07		100.0%	2.0%	0.5%	2.0%	57.8%	33.3%	0.10	0.00	0.00	0.00	0.04	0.03	50.5%	50.5%	2.0%	0.5%	1.5%	20.6%	14.2%
89			137		1	0.23	0.00	0.00	0.01	0.13	0.07		100.0%	1.3%	0.4%	5.3%	58.2%	28.9%	0.10	0.00	0.00	0.01	0.05	0.02	45.8%	45.8%	1.3%	0.4%	4.0%	21.8%	9.8%
90			142		2	0.37	0.01	0.01	0.01	0.21	0.13		100.0%	1.3%	1.9%	2.4%	56.3%	35.3%	0.17	0.01	0.01	0.01	0.09	0.06	45.8%	45.8%	1.3%	1.6%	2.2%	23.5%	15.9%
91			143		2	0.38	0.01	0.00	0.01	0.19	0.18		100.0%	1.6%	0.5%	1.6%	49.7%	48.2%	0.28	0.01	0.00	0.01	0.09	0.09	73.6%	73.6%	1.6%	0.3%	1.3%	22.5%	23.6%
92			144		2	0.38	0.01	0.00	0.01	0.19	0.15		100.0%	2.9%	0.5%	1.3%	51.1%	38.7%	0.24	0.01	0.00	0.00	0.08	0.06	62.6%	62.6%	2.4%	0.5%	1.1%	21.1%	16.8%
93			145		2	0.37	0.00	0.01	0.01	0.20	0.11		100.0%	0.8%	2.4%	3.0%	53.5%	30.8%	0.14	0.00	0.01	0.01	0.08	0.05	38.9%	38.9%	0.8%	2.2%	2.4%	21.6%	13.8%
94			149		2	0.45	0.01	0.00	0.03	0.27	0.11		100.0%	1.6%	0.2%	6.5%	60.2%	23.8%	0.25	0.01	0.00	0.02	0.13	0.05	56.2%	56.2%	1.6%	0.2%	4.9%	29.4%	11.0%
95			150		2	0.34	0.01	0.01	0.00	0.18	0.14	0.30	93.3%	1.4%	1.4%	1.1%	50.1%	37.2%	0.23	0.01	0.01	0.00	0.09	0.06	62.9%	62.9%	1.4%	1.4%	0.8%	23.3%	17.0%
96			151		2	0.38	0.00	0.01	0.01	0.22	0.12		100.0%	1.1%	2.7%	2.4%	58.5%	32.4%	0.18	0.00	0.01	0.01	0.09	0.06	48.7%	48.7%	0.8%	2.1%	1.6%	23.7%	15.2%
97			157		5	0.73	0.01	0.01	0.04	0.52	0.32		100.0%	1.5%	1.2%	5.5%	70.9%	43.1%	0.30	0.01	0.01	0.03	0.26	0.13	41.3%	41.3%	1.4%	1.1%	4.5%	35.4%	18.3%
98			158		5	0.81	0.02	0.00	0.06	0.60	0.34		100.0%	2.2%	0.2%	7.3%	73.6%	41.2%	0.58	0.02	0.00	0.04	0.33	0.19	70.7%	70.7%	1.8%	0.2%	5.4%	40.5%	23.9%
99			159		5	0.84	0.03	0.00	0.01	0.35	0.45		100.0%	3.7%	0.2%	1.3%	41.2%	53.1%	0.60	0.03	0.00	0.01	0.16	0.21	71.0%	71.0%	3.1%	0.2%	1.0%	19.4%	24.5%
100			160		5	0.79	0.03	0.01	0.01	0.53	0.36	0.30	93.3%	3.9%	0.6%	1.7%	62.9%	42.2%	0.55	0.03	0.01	0.01	0.27	0.18	65.6%	65.6%	3.3%	0.6%	1.3%	31.9%	21.0%
101			161		5	0.74	0.01	0.03	0.02	0.41	0.28		100.0%	1.8%	4.2%	2.8%	56.0%	38.1%	0.31	0.01	0.03	0.02	0.20	0.11	42.3%	42.3%	1.1%	3.7%	2.3%	26.9%	15.5%
102			166		5	0.77	0.01	0.01	0.03	0.53	0.34		100.0%	1.3%	0.6%	3.4%	68.4%	44.4%	0.44	0.01	0.00	0.02	0.28	0.17	56.5%	56.5%	0.9%	0.5%	2.7%	35.9%	22.0%
103			167		5	0.79	0.03	0.00	0.02	0.39	0.38		100.0%	3.8%	0.4%	2.4%	49.8%	47.8%	0.57	0.03	0.00	0.02	0.21	0.18	72.6%	72.6%	3.4%	0.3%	1.9%	26.4%	22.9%
104			168		5	0.88	0.03	0.01	0.01	0.40	0.45		100.0%	3.4%	1.1%	1.1%	45.2%	50.5%	0.61	0.03	0.01	0.01	0.19	0.20	69.4%	69.4%	3.1%	1.0%	0.9%	21.8%	22.8%
105			169		5	0.82	0.02	0.01	0.02	0.51	0.30	0.30	93.3%	2.5%	1.4%	2.3%	57.9%	34.2%	0.53	0.02	0.01	0.02	0.26	0.15	59.8%	59.8%	2.0%	1.1%	1.8%	29.1%	17.1%
106			1	129	2	0.55	0.01	0.00	0.02	0.22	0.20		100.0%	0.9%	0.7%	3.8%	39.3%	35.6%	0.25	0.00	0.00	0.02	0.08	0.08	46.1%	46.1%	0.5%	0.7%	3.3%	14.4%	14.3%
107			3	131	2	0.65	0.01	0.01	0.01	0.21	0.21		100.0%	0.8%	1.2%	2.2%	32.5%	31.9%	0.28	0.01	0.01	0.01	0.08	0.08	43.8%	43.8%	0.8%	1.1%	1.7%	12.0%	12.2%
108			5	133	2	0.59	0.01	0.00	0.01	0.19	0.27		100.0%	1.2%	0.7%	1.7%	31.3%	46.2%	0.31	0.01	0.00	0.01	0.07	0.11	52.3%	52.3%	1.0%	0.7%	1.4%	12.0%	19.1%
109			7	135	2	0.65	0.01	0.01	0.02	0.25	0.20		100.0%	1.1%	0.8%	3.5%	37.6%	31.2%	0.32	0.01	0.01	0.02	0.10	0.07	49.0%	49.0%	0.9%	0.8%	2.6%	15.1%	11.2%
110			9	137	2	0.65	0.01	0.00	0.03	0.23	0.24		100.0%	0.9%	0.6%	5.1%	35.8%	37.8%	0.32	0.01	0.00	0.03	0.09	0.10	49.1%	49.1%	0.8%	0.5%	4.0%	14.4%	15.2%
111			14	142	4	0.88	0.01	0.02	0.04	0.35	0.30		100.0%	1.6%	1.8%	4.6%	39.9%	34.3%	0.36	0.01	0.02	0.03	0.16	0.12	40.5%	40.5%	1.4%	1.7%	3.3%	17.9%	13.8%
112			15	143	4	0.97	0.01	0.00	0.02	0.47	0.47		100.0%	1.4%	0.3%	2.3%	47.9%	47.9%	0.64	0.01	0.00	0.02	0.22	0.20	65.6%	65.6%	1.3%	0.3%	1.6%	22.2%	20.5%
113			16	144	4	1.29	0.02	0.01	0.02	0.48	0.64		100.0%	1.4%	0.5%	1.4%	37.4%	49.3%	0.79	0.02	0.01	0.01	0.20	0.29	61.6%	61.6%	1.2%	0.5%	0.9%	15.3%	22.4%
114			17	145	4	0.81	0.01	0.02	0.03	0.32	0.34		100.0%	1.1%	2.1%	4.2%	39.8%	41.4%	0.40	0.01	0.01	0.03	0.13	0.14	48.9%	48.9%	1.0%	1.7%	3.2%	15.7%	17.7%
115			21	149	4	1.06	0.02	0.01	0.08	0.49	0.37		100.0%	1.9%	0.5%	7.6%	46.6%	35.1%	0.59	0.02	0.01	0.06	0.24	0.17	55.3%	55.3%	1.7%	0.5%	5.8%	22.8%	15.7%
116			22	150	4	0.97	0.01	0.01	0.01	0.50	0.44		100.0%	0.9%	0.9%	1.0%	51.2%	45.8%	0.63	0.01	0.01	0.01	0.24	0.21	64.7%	64.7%	0.8%	0.8%	0.7%	24.4%	21.6%
117			23	151	4	0.84	0.01	0.02	0.03	0.34	0.38		100.0%	1.3%	2.0%	3.0%	40.9%	45.5%	0.47	0.01	0.02	0.02	0.16	0.16	55.5%	55.5%	1.2%	1.8%	2.3%	18.9%	19.3%
118			29	157	10	2.48	0.03	0.03	0.22	1.18	0.87		100.0%	1.1%	1.1%	8.9%	47.6%	35.1%	1.03	0.03	0.03	0.17	0.55	0.40	41.5%	41.5%	1.0%	1.0%	7.0%	22.1%	16.2%
119			30	158	10	2.66	0.04	0.01	0.12	1.42	0.88		100.0%	1.5%	0.3%	4.4%	53.6%	33.2%	1.57	0.04	0.01	0.09	0.72	0.43	59.1%	59.1%	1.4%	0.3%	3.5%	26.9%	16.1%
120			31	159	10	2.91	0.04	0.01	0.03	1.28	1.34		100.0%	1.4%	0.2%	1.0%	44.0%	45.8%	1.95	0.04	0.01	0.02	0.61	0.65	67.0%	67.0%	1.3%	0.2%	0.8%	20.8%	22.4%
121			32	160	10	2.69	0.04	0.01	0.03	1.12	1.42		100.0%	1.6%	0.5%	1.0%	41.4%	52.9%	1.73	0.04	0.01	0.02	0.56	0.77	64.2%	64.2%	1.3%	0.4%	0.8%	20.8%	28.6%
122			33	161	10	2.37	0.04	0.06	0.12	1.04	1.21		100.0%	1.9%	2.6%	5.1%	44.1%	51.2%	1.09	0.03	0.06	0.10	0.54	0.65	46.0%	46.0%	1.1%	2.3%	4.0%	23.0%	27.5%
123			38	166	10	2.67	0.03	0.01	0.16	1.30	0.98		100.0%	1.0%	0.5%	5.8%	48.8%	36.7%	1.37	0.02	0.01	0.12	0.62	0.46	51.4%	51.4%	0.8%	0.4%	4.5%	23.4%	17.1%
124			39	167	10	2.59	0.05	0.01	0.06	1.31	1.00		100.0%	1.9%	0.3%	2.5%	50.8%	38.5%	1.73	0.04	0.01	0.05	0.68	0.46	67.0%	67.0%	1.7%	0.3%	2.0%	26.1%	17.8%
125			40	168	10	2.99	0.04	0.02	0.02	1.14	1.71		100.0%	1.4%	0.6%	0.6%	38.1%	57.1%	2.06	0.04	0.02	0.01	0.53	0.86	69.1%	69.1%	1.2%	0.5%	0.4%	17.6%	28.8%
126			41	169	10	2.68	0.04	0.04	0.07	1.03	1.32		100.0%	1.6%	1.3%	2.5%	38.5%	49.2%	1.57	0.03	0.03	0.05	0.51	0.74	58.6%	58.6%	1.2%	1.1%	1.8%	19.2%	27.8%

- N–patch Mid CH

													max ratio out of all beams												max ratio out of all beams						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)						per Beam Back-off (dB)	100.0%	3.1%	4.0%	9.0%	71.6%	66.5%	4cm2 PD(mW/cm2) at 10mm evaluation distance						71.7%	71.7%	2.7%	3.4%	7.5%	36.1%	32.7%
						S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)		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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
64	N	Patch	1		1	0.28	0.00	0.00	0.01	0.10	0.09		100.0%	0.7%	0.4%	1.8%	34.9%	32.7%	0.13	0.00	0.00	0.01	0.04	0.04	46.5%	46.5%	0.4%	0.4%	1.8%	13.4%	14.1%
65			3		1	0.29	0.00	0.00	0.01	0.08	0.10		100.0%	0.3%	0.3%	3.1%	27.7%	34.3%	0.13	0.00	0.00	0.01	0.03	0.04	45.7%	45.7%	0.3%	0.3%	2.8%	8.7%	12.1%
66			5		1	0.28	0.00	0.00	0.01	0.07	0.11		100.0%	0.7%	0.4%	3.2%	26.6%	37.8%	0.11	0.00	0.00	0.01	0.03	0.04	41.0%	41.0%	0.4%	0.4%	2.9%	9.4%	15.5%
67			7		1	0.28	0.00	0.00	0.01	0.08	0.10		100.0%	1.1%	0.4%	3.3%	27.6%	36.0%	0.12	0.00	0.00	0.01	0.02	0.04	45.1%	45.1%	1.1%	0.4%	2.5%	8.4%	14.9%
68			9		1	0.28	0.00	0.00	0.01	0.10	0.10		100.0%	0.7%	0.4%	2.5%	35.7%	35.4%	0.14	0.00	0.00	0.01	0.04	0.04	49.3%	49.3%	0.7%	0.4%	1.8%	12.5%	14.3%
69			14		2	0.54	0.00	0.00	0.03	0.16	0.20		100.0%	0.7%	0.6%	5.0%	29.4%	36.2%	0.24	0.00	0.00	0.02	0.06	0.09	43.4%	43.4%	0.6%	0.6%	3.9%	11.1%	15.7%
70			15		2	0.53	0.00	0.00	0.02	0.22	0.26		100.0%	0.8%	0.2%	3.2%	40.5%	48.8%	0.34	0.00	0.00	0.01	0.09	0.12	63.7%	63.7%	0.8%	0.2%	2.4%	16.8%	22.4%
71			16		2	0.51	0.01	0.00	0.01	0.16	0.25		100.0%	1.2%	0.4%	1.2%	31.4%	48.3%	0.28	0.01	0.00	0.01	0.06	0.13	54.2%	54.2%	1.0%	0.4%	1.0%	11.4%	24.6%
72			17		2	0.51	0.01	0.00	0.02	0.17	0.17		100.0%	1.6%	0.8%	3.1%	32.5%	34.1%	0.21	0.01	0.00	0.01	0.06	0.08	41.3%	41.3%	1.4%	0.8%	2.3%	11.4%	15.9%
73			21		2	0.57	0.00	0.00	0.03	0.18	0.22		100.0%	0.5%	0.3%	4.4%	31.6%	38.7%	0.29	0.00	0.00	0.02	0.08	0.10	50.4%	50.4%	0.5%	0.2%	3.7%	13.3%	17.5%
74			22		2	0.53	0.00	0.00	0.01	0.18	0.28		100.0%	0.8%	0.2%	1.7%	34.7%	52.1%	0.31	0.00	0.00	0.01	0.07	0.14	59.3%	59.3%	0.8%	0.2%	1.3%	13.3%	25.6%
75			23		2	0.50	0.01	0.00	0.01	0.16	0.19		100.0%	1.6%	0.8%	2.4%	32.7%	38.4%	0.23	0.01	0.00	0.01	0.06	0.09	45.8%	45.8%	1.4%	0.6%	1.6%	12.2%	18.7%
76			29		5	1.19	0.01	0.01	0.11	0.45	0.50		100.0%	0.8%	0.6%	9.0%	37.8%	41.8%	0.55	0.01	0.01	0.09	0.13	0.24	46.1%	46.1%	0.7%	0.5%	7.5%	10.9%	20.6%
77			30		5	1.17	0.01	0.00	0.06	0.44	0.49		100.0%	0.7%	0.3%	5.1%	37.9%	41.9%	0.67	0.01	0.00	0.05	0.20	0.26	57.2%	57.2%	0.6%	0.3%	4.3%	17.2%	22.0%
78			31		5	1.33	0.01	0.00	0.01	0.52	0.65		100.0%	0.4%	0.3%	0.6%	39.0%	48.8%	0.84	0.00	0.00	0.01	0.24	0.34	63.0%	63.0%	0.3%	0.2%	0.5%	18.3%	25.2%
79			32		5	1.12	0.01	0.01	0.01	0.41	0.54		100.0%	1.0%	0.4%	0.7%	36.4%	48.2%	0.67	0.01	0.00	0.01	0.18	0.30	59.7%	59.7%	0.8%	0.4%	0.6%	16.3%	26.2%
80			33		5	1.27	0.03	0.02	0.06	0.46	0.43		100.0%	2.3%	1.4%	4.4%	36.3%	33.9%	0.61	0.02	0.02	0.04	0.18	0.21	48.1%	48.1%	1.4%	1.4%	3.0%	13.9%	16.5%
81			38		5	1.14	0.01	0.00	0.09	0.40	0.51		100.0%	0.7%	0.2%	7.6%	35.0%	45.0%	0.65	0.01	0.00	0.07	0.17	0.25	57.0%	57.0%	0.6%	0.2%	6.3%	14.9%	22.2%
82			39		5	1.19	0.01	0.00	0.03	0.49	0.51		100.0%	0.6%	0.3%	2.6%	41.1%	43.1%	0.71	0.01	0.00	0.02	0.23	0.26	59.5%	59.5%	0.5%	0.3%	2.0%	19.3%	21.6%
83			40		5	1.27	0.01	0.00	0.01	0.45	0.69		100.0%	0.5%	0.3%	0.9%	35.8%	54.2%	0.81	0.01	0.00	0.01	0.22	0.38	63.6%	63.6%	0.4%	0.2%	0.8%	17.3%	30.3%
84			41		5	1.08	0.02	0.01	0.02	0.44	0.47		100.0%	1.8%	0.6%	1.4%	41.2%	43.4%	0.64	0.02	0.01	0.01	0.20	0.24	59.1%	59.1%	1.5%	0.5%	1.2%	18.1%	22.4%
85			129		1	0.18	0.00	0.00	0.00	0.13	0.06	0.30	93.3%	1.1%	1.1%	1.6%	70.7%	33.7%	0.10	0.00	0.00	0.00	0.05	0.04	51.7%	51.7%	1.1%	1.1%	1.6%	27.4%	20.6%
86			131		1	0.20	0.00	0.01	0.00	0.12	0.08		100.0%	1.0%	2.6%	1.5%	62.1%	42.1%	0.11	0.00	0.00	0.00	0.05	0.04	53.8%	53.8%	1.0%	2.1%	1.5%	23.6%	21.5%
87			133		1	0.21	0.00	0.00	0.01	0.10	0.08		100.0%	0.9%	0.5%	2.8%	47.9%	39.3%	0.11	0.00	0.00	0.01	0.03	0.03	52.1%	52.1%	0.9%	0.5%	2.4%	14.7%	14.7%
88			135		1	0.21	0.00	0.00	0.00	0.13	0.08		100.0%	1.4%	0.9%	1.9%	61.1%	39.3%	0.11	0.00	0.00	0.00	0.05	0.05	51.2%	51.2%	0.9%	0.9%	1.4%	21.3%	24.2%
89			137		1	0.21	0.00	0.00	0.01	0.14	0.08		100.0%	1.9%	0.9%	2.3%	64.0%	37.4%	0.10	0.00	0.00	0.00	0.05	0.04	48.1%	48.1%	1.4%	0.9%	1.9%	22.0%	18.7%
90			142		2	0.38	0.01	0.00	0.01	0.21	0.14		100.0%	1.3%	1.0%	3.1%	55.6%	37.5%	0.19	0.00	0.00	0.01	0.10	0.07	49.9%	49.9%	1.0%	1.0%	2.4%	25.5%	17.8%
91			143		2	0.43	0.01	0.00	0.01	0.20	0.21		100.0%	1.4%	0.7%	1.4%	47.1%	49.4%	0.27	0.01	0.00	0.00	0.08	0.08	62.4%	62.4%	1.2%	0.7%	0.9%	19.2%	19.4%
92			144		2	0.37	0.01	0.00	0.00	0.22	0.19		100.0%	1.9%	0.5%	1.1%	59.5%	51.4%	0.22	0.01	0.00	0.00	0.09	0.10	60.3%	60.3%	1.6%	0.5%	0.8%	23.8%	27.3%
93			145		2	0.36	0.00	0.01	0.01	0.22	0.13		100.0%	1.1%	3.4%	2.8%	62.5%	35.5%	0.17	0.00	0.01	0.01	0.07	0.06	47.6%	47.6%	1.1%	2.8%	2.5%	20.8%	15.8%
94			149		2	0.43	0.01	0.00	0.01	0.26	0.16		100.0%	2.3%	0.7%	3.2%	60.8%	37.6%	0.27	0.01	0.00	0.01	0.10	0.09	62.7%	62.7%	2.1%	0.5%	2.3%	24.0%	20.7%
95			150		2	0.35	0.01	0.01	0.01	0.27	0.15	0.30	93.3%	1.3%	1.8%	1.3%	70.7%	39.0%	0.25	0.00	0.01	0.00	0.11	0.08	65.4%	65.4%	1.1%	1.6%	1.1%	29.3%	21.1%
96			151		2	0.35	0.01	0.01	0.01	0.23	0.12		100.0%	1.4%	3.7%	2.3%	63.7%	34.6%	0.18	0.01	0.01	0.01	0.08	0.06	52.1%	52.1%	1.4%	3.1%	2.0%	22.1%	16.4%
97			157		5	0.90	0.01	0.01	0.04	0.53	0.35		100.0%	1.1%	0.6%	4.8%	58.6%	39.4%	0.47	0.01	0.00	0.03	0.26	0.16	52.7%	52.7%	1.0%	0.4%	3.7%	28.8%	17.9%
98			158		5	0.89	0.03	0.00	0.02	0.64	0.42		100.0%	3.1%	0.4%	2.2%	71.6%	47.3%	0.60	0.02	0.00	0.02	0.31	0.21	66.8%	66.8%	2.7%	0.3%	1.8%	35.0%	23.5%
99			159		5	0.90	0.02	0.01	0.01	0.46	0.60		100.0%	1.8%	0.6%	0.8%	51.5%	66.5%	0.63	0.01	0.01	0.01	0.17	0.28	69.6%	69.6%	1.4%	0.6%	0.6%	19.1%	30.7%
100			160		5	0.84	0.02	0.01	0.01	0.64	0.39	0.30	93.3%	2.6%	0.7%	1.6%	70.9%	43.9%	0.53	0.02	0.01	0.01	0.31	0.20	58.8%	58.8%	2.2%	0.6%	1.1%	34.6%	22.1%
101			161		5	0.73	0.01	0.03	0.03	0.45	0.24		100.0%	1.0%	4.0%	3.4%	61.9%	32.9%	0.36	0.01	0.03	0.02	0.19	0.13	49.1%	49.1%	0.8%	3.4%	2.8%	26.4%	17.9%
102			166		5	0.93	0.01	0.01	0.03	0.64	0.35		100.0%	1.3%	0.5%	3.4%	68.5%	37.8%	0.55	0.01	0.00	0.03	0.34	0.18	59.1%	59.1%	1.2%	0.4%	2.7%	36.1%	19.0%
103			167		5	0.93	0.02	0.00	0.01	0.48	0.61		100.0%	2.3%	0.3%	1.3%	51.3%	65.4%	0.67	0.02	0.00	0.01	0.18	0.29	71.7%	71.7%	1.9%	0.2%	1.0%	18.9%	31.1%
104			168		5	0.80	0.01	0.02	0.01	0.51	0.43		100.0%	1.4%	2.1%	1.5%	63.9%	53.7%	0.53	0.01	0.02	0.01	0.22	0.23	66.0%	66.0%	1.2%	1.9%	1.0%	27.2%	28.6%
105			169		5	0.77	0.02	0.02	0.01	0.57	0.39	0.30	93.3%	2.5%	1.9%	1.7%	68.7%	47.5%	0.44	0.02	0.01	0.01	0.26	0.21	53.2%	53.2%	2.1%	1.6%	1.3%	31.9%	25.7%
106			1	129	2	0.58	0.00	0.00	0.01	0.29	0.19		100.0%	0.7%	0.5%	2.1%	50.7%	32.9%	0.31	0.00	0.00	0.01	0.11	0.10	53.1%	53.1%	0.7%	0.5%	1.7%	19.0%	17.6%
107			3	131	2	0.59	0.01	0.01	0.02	0.25	0.20		100.0%	0.8%	1.5%	2.9%	42.0%	33.4%	0.28	0.00	0.01	0.01	0.09	0.07	47.9%	47.9%	0.7%	1.2%	2.2%	15.2%	11.8%
108			5	133	2	0.56	0.01	0.00	0.03	0.21	0.24		100.0%	0.9%	0.5%	4.4%	37.6%	42.7%	0.27	0.01	0.00	0.02	0.06	0.10	47.0%	47.0%	0.9%	0.5%	3.5%	10.8%	17.2%
109			7	135	2	0.59	0.01	0.01	0.02	0.24	0.22		100.0%	1.7%	0.9%	3.8%	41.4%	37.1%	0.31	0.01	0.00	0.02	0.08	0.11	52.8%	52.8%	1.5%	0.7%	2.7%	14.2%	19.5%
110			9	137	2	0.62	0.01	0.01	0.02	0.27	0.19		100.0%	0.8%	0.8%	3.1%	44.2%	30.9%	0.29	0.00	0.01	0.02	0.09	0.07	47.8%	47.8%	0.7%	0.8%	2.4%	15.3%	11.2%
111			14	142	4	0.86	0.01	0.01	0.04	0.37	0.36		100.0%	1.4%	0.9%	5.1%	43.0%	41.4%	0.42	0.01	0.01	0.03	0.16	0.13	48.8%	48.8%	1.2%	0.8%	4.0%	19.1%	15.0%
112			15	143	4	0.98	0.01	0.01	0.03	0.47	0.51		100.0%	1.0%	0.6%	2.8%	48.0%	51.5%	0.66	0.01	0.01	0.02	0.20	0.25	67.0%	67.0%	0.9%	0.5%	2.0%	20.8%	25.9%
113			16	144	4	1.06	0.03	0.01	0.02	0.45	0.55		100.0%	2.4%	0.7%	1.5%	42.6%	51.5%	0.63	0.02	0.01	0.01	0.16	0.26	59.5%	59.5%	2.0%	0.6%	1.0%	15.3%	24.8%
114			17	145	4	0.82	0.01	0.02	0.04	0.37	0.30		100.0%	1.3%	2.2%	4.6%	44.7%	36.2%	0.32	0.01	0.02	0.03	0.14	0.17	38.5%	38.5%	1.1%	1.9%	3.5%	17.4%	20.5%
115			21	149	4	1.21	0.02	0.01	0.07	0.51	0.47		100.0%	1.7%	0.4%	5.9%	42.0%	38.5%	0.73	0.02	0.00	0.05	0.22	0.23	60.4%	60.4%	1.5%	0.3%	4.5%	17.9%	18.7%
116			22	150	4	0.98	0.01	0.01	0.01	0.50	0.46		100.0%	1.3%	1.0%	1.3%	50.7%	46.4%	0.65	0.01	0.01	0.01	0.22	0.23	66.0%	66.0%	1.1%	0.9%	0.9%	22.8%	23.2%
117			23	151	4	0.81	0.01	0.02	0.02	0.35	0.32		100.0%	1.4%	2.3%	3.0%	42.7%	39.1%	0.35	0.01	0.02	0.02	0.13	0.18	42.8%	42.8%	1.1%	2.0%	2.3%	16.3%	22.1%
118			29	157	10	2.85	0.03	0.02	0.22	1.16	1.26		100.0%	0.9%	0.5%	7.6%	40.6%	44.3%	1.44	0.02	0.01	0.18	0.49	0.61	50.4%	50.4%	0.7%	0.5%	6.1%	17.1%	21.3%
119			30	158	10	2.80	0.05	0.01	0.10	1.40	1.11		100.0%	1.6%	0.4%	3.7%	50.0%	39.5%	1.73	0.04	0.01	0.08	0.69	0.54	62.0%	62.0%	1.4%	0.4%	3.0%	24.6%	19.4%
120			31	159	10	2.84	0.03	0.02	0.02	1.13	1.62		100.0%	0.9%	0.5%	0.7%	39.7%	56.8%	1.99	0.02	0.01	0.01	0.49	0.85	69.8%	69.8%	0.8%	0.5%	0.5%	17.1%	29.8%
121			32	160	10	2.41	0.06	0.02	0.03	1.20	1.04		100.0%	2.3%	0.7%	1.3%	49.9%	43.2%	1.45	0.05	0.02	0.02	0.54	0.49	60.2%	60.2%	2.0%	0.6%	1.0%	22.5%	20.2%
122			33	161	10	2.45	0.04	0.06	0.10	1.30	0.73		100.0%	1.8%	2.4%	4.2%	52.9%	29.8%	1.23	0.03	0.06	0.07	0.55	0.35	50.3%	50.3%	1.2%	2.3%	2.9%	22.6%	14.1%
123			38	166	10	2.75	0.03	0.01	0.18	1.27	1.12		100.0%	1.1%	0.3%	6.5%	46.3%	40.6%	1.57	0.03	0.01	0.14	0.62	0.56	57.3%	57.3%	1.0%	0.3%	5.2%	22.6%	20.3%
124			39	167	10	2.77	0.05	0.01	0.06	1.23	1.45		100.0%	1.7%	0.3%	2.3%	44.5%	52.2%	1.94	0.04	0.01	0.05	0.56	0.72	69.8%	69.8%	1.4%	0.3%	1.8%	20.0%	25.9%
125			40	168	10	2.32	0.03	0.03	0.02	1.04	1.36		100.0%	1.2%	1.1%	1.0%	44.7%	58.8%	1.57	0.02	0.02	0.02	0.52	0.76	67.6%	67.6%	0.9%	0.9%	0.8%	22.3%	32.7%
126			41	169	10	2.29	0.06	0.03	0.04	1.22	0.96		100.0%	2.8%	1.4%	1.8%	53.3%	41.8%	1.35	0.05	0.03	0.04	0.56	0.44	58.7%	58.7%	2.3%	1.3%	1.6%	24.6%	19.3%

- N–patch High CH

													max ratio out of all beams													max ratio out of all beams						
						4cm2 PD(mW/cm2)							100.0%	2.5%	2.2%	7.0%	69.0%	55.2%	4cm2 PD(mW/cm2) at 10mm evaluation distance						70.5%	70.5%	1.9%	1.9%	5.7%	35.4%	27.8%
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)	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)
64	N	Patch	1		1	0.30	0.00	0.00	0.01	0.09	0.12		100.0%	0.3%	0.3%	2.0%	31.2%	40.2%	0.15	0.00	0.00	0.01	0.03	0.04	51.2%	51.2%	0.3%	0.3%	1.7%	11.0%	14.6%
65			3		1	0.22	0.00	0.00	0.00	0.07	0.10		100.0%	0.9%	0.4%	1.8%	30.9%	44.4%	0.10	0.00	0.00	0.00	0.03	0.03	46.6%	46.6%	0.9%	0.4%	1.3%	11.7%	15.2%
66			5		1	0.29	0.00	0.00	0.01	0.09	0.10		100.0%	0.3%	0.3%	2.1%	30.8%	35.7%	0.12	0.00	0.00	0.01	0.03	0.03	43.4%	43.4%	0.3%	0.3%	1.7%	10.1%	11.9%
67			7		1	0.25	0.00	0.00	0.01	0.08	0.11		100.0%	0.8%	0.4%	2.0%	31.1%	43.7%	0.11	0.00	0.00	0.00	0.03	0.04	43.7%	43.7%	0.8%	0.4%	1.2%	9.8%	17.3%
68			9		1	0.24	0.00	0.00	0.01	0.09	0.09		100.0%	0.8%	0.4%	2.9%	36.5%	37.8%	0.11	0.00	0.00	0.01	0.03	0.03	45.6%	45.6%	0.8%	0.4%	2.1%	11.2%	13.7%
69			14		2	0.46	0.00	0.00	0.02	0.14	0.17		100.0%	0.6%	0.4%	3.9%	30.7%	36.4%	0.19	0.00	0.00	0.01	0.05	0.07	40.9%	40.9%	0.6%	0.4%	3.0%	10.8%	15.4%
70			15		2	0.44	0.00	0.00	0.01	0.19	0.24		100.0%	0.9%	0.2%	2.7%	42.1%	52.9%	0.28	0.00	0.00	0.01	0.07	0.11	63.3%	63.3%	0.9%	0.2%	2.0%	16.4%	24.5%
71			16		2	0.52	0.00	0.00	0.00	0.20	0.25		100.0%	0.8%	0.2%	0.8%	38.5%	48.9%	0.30	0.00	0.00	0.00	0.08	0.13	57.6%	57.6%	0.8%	0.2%	0.6%	16.2%	24.1%
72			17		2	0.54	0.01	0.00	0.01	0.14	0.21		100.0%	1.1%	0.6%	2.2%	26.5%	38.5%	0.20	0.01	0.00	0.01	0.05	0.11	37.0%	37.0%	0.9%	0.6%	1.5%	9.2%	19.5%
73			21		2	0.52	0.00	0.00	0.02	0.16	0.22		100.0%	0.4%	0.4%	3.3%	31.1%	41.7%	0.26	0.00	0.00	0.01	0.06	0.09	49.7%	49.7%	0.4%	0.4%	2.7%	11.8%	17.3%
74			22		2	0.51	0.00	0.00	0.01	0.20	0.24		100.0%	0.8%	0.2%	1.8%	39.3%	47.7%	0.30	0.00	0.00	0.01	0.08	0.11	58.7%	58.7%	0.8%	0.2%	1.4%	15.7%	22.4%
75			23		2	0.54	0.01	0.00	0.01	0.16	0.24		100.0%	1.1%	0.6%	1.7%	30.5%	44.5%	0.25	0.01	0.00	0.01	0.07	0.12	46.7%	46.7%	0.9%	0.4%	1.1%	12.5%	22.9%
76			29		5	1.12	0.01	0.01	0.06	0.35	0.55		100.0%	1.1%	0.5%	5.4%	31.4%	48.8%	0.60	0.01	0.01	0.05	0.13	0.27	53.1%	53.1%	0.9%	0.4%	4.6%	11.2%	23.9%
77			30		5	1.01	0.01	0.00	0.04	0.38	0.53		100.0%	0.9%	0.3%	4.1%	37.2%	52.2%	0.59	0.01	0.00	0.03	0.17	0.26	58.7%	58.7%	0.8%	0.2%	3.4%	16.5%	25.6%
78			31		5	1.18	0.01	0.00	0.01	0.45	0.60		100.0%	0.8%	0.3%	1.2%	37.7%	50.7%	0.71	0.01	0.00	0.01	0.19	0.28	60.0%	60.0%	0.7%	0.3%	0.9%	16.1%	23.7%
79			32		5	1.15	0.01	0.00	0.01	0.44	0.56		100.0%	1.0%	0.2%	1.2%	38.6%	48.6%	0.70	0.01	0.00	0.01	0.21	0.28	60.6%	60.6%	0.8%	0.2%	1.0%	18.5%	24.6%
80			33		5	0.98	0.03	0.02	0.04	0.27	0.47		100.0%	2.5%	1.5%	4.3%	27.0%	47.4%	0.45	0.02	0.01	0.02	0.12	0.27	46.1%	46.1%	1.9%	1.3%	2.4%	12.4%	27.2%
81			38		5	0.99	0.01	0.00	0.07	0.34	0.55		100.0%	0.8%	0.4%	7.0%	34.5%	55.2%	0.59	0.01	0.00	0.06	0.13	0.27	59.2%	59.2%	0.7%	0.3%	5.7%	13.4%	27.7%
82			39		5	1.08	0.01	0.01	0.03	0.40	0.55		100.0%	0.8%	0.5%	3.1%	36.9%	51.2%	0.63	0.01	0.00	0.03	0.19	0.26	58.5%	58.5%	0.8%	0.4%	2.4%	17.5%	24.2%
83			40		5	1.21	0.01	0.00	0.02	0.49	0.59		100.0%	1.1%	0.2%	1.5%	40.7%	48.6%	0.79	0.01	0.00	0.01	0.22	0.31	65.1%	65.1%	1.0%	0.2%	1.2%	18.5%	25.6%
84			41		5	1.12	0.02	0.01	0.01	0.40	0.55		100.0%	1.4%	0.6%	1.3%	35.6%	48.8%	0.61	0.01	0.01	0.01	0.18	0.31	54.8%	54.8%	1.3%	0.5%	1.1%	16.5%	27.5%
85			129		1	0.16	0.00	0.00	0.00	0.11	0.06	0.30	93.3%	1.2%	0.6%	2.3%	63.2%	33.0%	0.08	0.00	0.00	0.00	0.05	0.03	45.2%	45.2%	1.2%	0.6%	1.7%	29.0%	15.7%
86			131		1	0.22	0.00	0.00	0.00	0.12	0.08		100.0%	1.4%	0.9%	1.4%	55.4%	33.8%	0.13	0.00	0.00	0.00	0.05	0.03	58.1%	58.1%	0.9%	0.9%	0.9%	21.2%	14.9%
87			133		1	0.21	0.00	0.00	0.00	0.12	0.07		100.0%	1.0%	0.5%	2.0%	58.0%	33.2%	0.11	0.00	0.00	0.00	0.05	0.03	52.7%	52.7%	1.0%	0.5%	1.5%	23.9%	15.6%
88			135		1	0.24	0.00	0.00	0.00	0.15	0.07		100.0%	0.8%	0.4%	1.7%	63.1%	28.0%	0.12	0.00	0.00	0.00	0.06	0.03	49.2%	49.2%	0.8%	0.4%	1.3%	24.6%	13.6%
89			137		1	0.21	0.00	0.00	0.01	0.12	0.06		100.0%	0.9%	0.5%	2.4%	57.5%	28.8%	0.11	0.00	0.00	0.00	0.05	0.03	53.3%	53.3%	0.5%	0.5%	1.9%	22.2%	13.2%
90			142		2	0.41	0.01	0.00	0.01	0.22	0.13		100.0%	1.2%	1.0%	2.7%	53.4%	32.8%	0.22	0.00	0.00	0.01	0.09	0.06	54.4%	54.4%	1.0%	0.7%	2.2%	21.2%	13.5%
91			143		2	0.47	0.00	0.00	0.01	0.29	0.17		100.0%	0.9%	0.6%	1.1%	62.8%	35.9%	0.33	0.00	0.00	0.00	0.14	0.07	70.5%	70.5%	0.6%	0.4%	0.9%	29.3%	15.6%
92			144		2	0.45	0.00	0.00	0.01	0.29	0.14		100.0%	0.9%	0.4%	1.3%	65.0%	31.6%	0.27	0.00	0.00	0.00	0.13	0.08	61.2%	61.2%	0.7%	0.4%	0.9%	29.8%	17.5%
93			145		2	0.41	0.00	0.01	0.01	0.21	0.09		100.0%	0.7%	1.5%	1.9%	50.7%	22.8%	0.20	0.00	0.01	0.01	0.08	0.04	49.5%	49.5%	0.7%	1.2%	1.5%	18.2%	9.0%
94			149		2	0.46	0.01	0.00	0.01	0.25	0.14		100.0%	1.1%	0.4%	3.1%	55.2%	31.0%	0.27	0.00	0.00	0.01	0.12	0.06	58.7%	58.7%	0.9%	0.4%	2.4%	25.7%	13.4%
95			150		2	0.32	0.00	0.01	0.01	0.19	0.16	0.30	93.3%	1.2%	1.5%	1.5%	54.7%	45.6%	0.22	0.00	0.00	0.00	0.07	0.07	62.8%	62.8%	1.2%	1.2%	1.2%	21.2%	20.6%
96			151		2	0.39	0.00	0.01	0.01	0.18	0.11		100.0%	0.8%	1.8%	1.8%	46.2%	27.3%	0.20	0.00	0.01	0.01	0.06	0.04	52.0%	52.0%	0.8%	1.5%	1.5%	14.8%	11.0%
97			157		5	0.69	0.02	0.00	0.05	0.43	0.26		100.0%	2.2%	0.4%	6.8%	62.1%	37.6%	0.39	0.01	0.00	0.03	0.21	0.14	56.5%	56.5%	1.7%	0.4%	4.9%	30.8%	19.9%
98			158		5	1.09	0.02	0.00	0.02	0.75	0.35		100.0%	1.4%	0.3%	1.5%	69.0%	31.8%	0.72	0.01	0.00	0.01	0.38	0.17	66.1%	66.1%	1.2%	0.3%	1.1%	35.4%	15.7%
99			159		5	0.85	0.01	0.01	0.02	0.51	0.40		100.0%	1.6%	0.6%	1.8%	59.4%	47.4%	0.54	0.01	0.01	0.01	0.24	0.22	63.2%	63.2%	1.4%	0.6%	1.3%	27.7%	25.9%
100			160		5	0.98	0.01	0.01	0.01	0.68	0.32	0.30	93.3%	1.0%	0.5%	1.1%	65.1%	30.4%	0.72	0.01	0.00	0.01	0.33	0.17	68.1%	68.1%	1.0%	0.4%	0.9%	31.2%	16.4%
101			161		5	0.74	0.01	0.02	0.03	0.43	0.22		100.0%	1.0%	2.0%	3.5%	58.4%	29.4%	0.35	0.01	0.01	0.02	0.20	0.12	47.8%	47.8%	0.8%	1.9%	2.2%	26.5%	15.9%
102			166		5	0.83	0.02	0.01	0.04	0.55	0.26		100.0%	1.9%	0.8%	5.1%	66.3%	31.8%	0.53	0.01	0.01	0.03	0.25	0.13	63.4%	63.4%	1.7%	0.8%	3.9%	30.6%	15.8%
103			167		5	0.88	0.01	0.00	0.02	0.53	0.42		100.0%	1.2%	0.3%	2.2%	60.2%	47.5%	0.57	0.01	0.00	0.01	0.26	0.23	64.1%	64.1%	1.1%	0.2%	1.6%	29.8%	25.5%
104			168		5	0.93	0.01	0.01	0.01	0.60	0.36		100.0%	1.1%	1.1%	0.9%	64.4%	38.6%	0.65	0.01	0.01	0.01	0.28	0.19	69.7%	69.7%	0.9%	0.9%	0.6%	30.5%	20.1%
105			169		5	0.84	0.01	0.01	0.01	0.52	0.27	0.30	93.3%	1.2%	1.3%	1.3%	58.0%	30.5%	0.55	0.01	0.01	0.01	0.24	0.15	61.2%	61.2%	1.0%	1.2%	1.0%	26.6%	16.6%
106			1	129	2	0.58	0.00	0.00	0.02	0.22	0.21		100.0%	0.7%	0.5%	2.6%	37.5%	36.6%	0.30	0.00	0.00	0.01	0.09	0.08	52.1%	52.1%	0.5%	0.3%	2.1%	14.6%	13.6%
107			3	131	2	0.55	0.01	0.01	0.01	0.23	0.20		100.0%	1.5%	1.1%	1.5%	41.4%	36.7%	0.27	0.01	0.01	0.01	0.09	0.08	49.5%	49.5%	1.3%	0.9%	1.1%	16.1%	14.4%
108			5	133	2	0.58	0.01	0.00	0.01	0.24	0.20		100.0%	0.9%	0.5%	2.4%	41.3%	34.1%	0.30	0.00	0.00	0.01	0.10	0.07	51.4%	51.4%	0.7%	0.3%	2.1%	16.6%	12.8%
109			7	135	2	0.57	0.01	0.00	0.01	0.29	0.21		100.0%	1.1%	0.5%	2.5%	50.2%	37.4%	0.27	0.01	0.00	0.01	0.12	0.09	48.1%	48.1%	0.9%	0.5%	1.9%	20.9%	15.4%
110			9	137	2	0.58	0.01	0.00	0.02	0.24	0.19		100.0%	0.9%	0.5%	3.1%	41.7%	32.8%	0.30	0.00	0.00	0.01	0.10	0.07	51.9%	51.9%	0.7%	0.3%	2.4%	17.4%	12.8%
111			14	142	4	0.78	0.01	0.01	0.04	0.36	0.33		100.0%	1.8%	0.8%	5.6%	45.6%	42.3%	0.44	0.01	0.01	0.04	0.16	0.14	55.9%	55.9%	1.7%	0.8%	4.5%	20.6%	17.9%
112			15	143	4	0.95	0.01	0.01	0.02	0.50	0.41		100.0%	1.3%	0.5%	2.5%	52.2%	43.6%	0.61	0.01	0.00	0.02	0.23	0.21	63.8%	63.8%	1.2%	0.4%	2.0%	23.7%	21.6%
113			16	144	4	1.10	0.01	0.01	0.01	0.58	0.43		100.0%	1.2%	0.5%	1.3%	52.3%	38.9%	0.68	0.01	0.00	0.01	0.29	0.23	61.4%	61.4%	1.0%	0.4%	1.0%	26.0%	20.9%
114			17	145	4	0.92	0.01	0.01	0.02	0.33	0.32		100.0%	1.0%	1.1%	2.4%	36.2%	34.9%	0.38	0.01	0.01	0.02	0.12	0.15	42.0%	42.0%	0.9%	1.0%	1.9%	12.7%	16.4%
115			21	149	4	1.12	0.01	0.01	0.05	0.46	0.50		100.0%	0.9%	0.5%	4.1%	40.9%	44.7%	0.69	0.01	0.01	0.03	0.21	0.22	61.4%	61.4%	0.8%	0.4%	3.0%	18.5%	19.4%
116			22	150	4	0.92	0.01	0.01	0.02	0.38	0.48		100.0%	1.1%	0.8%	2.3%	40.9%	51.8%	0.64	0.01	0.01	0.02	0.16	0.20	69.1%	69.1%	0.9%	0.7%	1.7%	17.0%	22.2%
117			23	151	4	0.92	0.01	0.01	0.02	0.32	0.35		100.0%	1.0%	1.0%	1.6%	34.5%	38.1%	0.46	0.01	0.01	0.01	0.11	0.18	49.7%	49.7%	0.8%	0.9%	1.3%	12.0%	19.3%
118			29	157	10	2.48	0.05	0.01	0.16	0.98	1.02		100.0%	1.9%	0.6%	6.6%	39.7%	41.3%	1.33	0.04	0.01	0.12	0.40	0.51	53.6%	53.6%	1.7%	0.5%	4.9%	16.0%	20.4%
119			30	158	10	2.91	0.03	0.01	0.07	1.42	1.30		100.0%	1.2%	0.3%	2.4%	48.7%	44.7%	1.74	0.03	0.01	0.06	0.70	0.64	60.0%	60.0%	1.0%	0.3%	1.9%	24.2%	22.1%
120			31	159	10	2.49	0.03	0.01	0.04	1.23	1.19		100.0%	1.2%	0.5%	1.4%	49.5%	47.6%	1.62	0.03	0.01	0.03	0.59	0.61	64.9%	64.9%	1.0%	0.4%	1.2%	23.6%	24.3%
121			32	160	10	2.45	0.03	0.01	0.04	1.26	1.09		100.0%	1.3%	0.5%	1.4%	51.7%	44.6%	1.71	0.03	0.01	0.03	0.61	0.57	70.1%	70.1%	1.1%	0.4%	1.1%	25.1%	23.4%
122			33	161	10	2.02	0.05	0.04	0.07	0.88	0.78		100.0%	2.5%	2.2%	3.4%	43.7%	38.8%	1.05	0.04	0.04	0.05	0.43	0.45	52.0%	52.0%	1.8%	1.9%	2.3%	21.2%	22.2%
123			38	166	10	2.42	0.04	0.01	0.15	1.01	1.12		100.0%	1.6%	0.5%	6.3%	41.5%	46.3%	1.44	0.03	0.01	0.12	0.43	0.56	59.5%	59.5%	1.3%	0.5%	5.0%	17.9%	23.0%
124			39	167	10	2.49	0.02	0.01	0.08	1.15	1.34		100.0%	0.9%	0.4%	3.1%	46.0%	53.6%	1.61	0.02	0.01	0.06	0.59	0.69	64.6%	64.6%	0.8%	0.3%	2.3%	23.7%	27.8%
125			40	168	10	2.56	0.03	0.02	0.03	1.34	0.99		100.0%	1.1%	0.6%	1.2%	52.5%	38.7%	1.66	0.03	0.01	0.02	0.61	0.58	65.1%	65.1%	1.0%	0.5%	0.9%	23.8%	22.7%
126			41	169	10	2.37	0.04	0.03	0.04	1.03	0.97		100.0%	1.8%	1.2%	1.5%	43.5%	40.9%	1.47	0.04	0.03	0.03	0.48	0.54	62.0%	62.0%	1.5%	1.1%	1.2%	20.2%	22.8%

Table 8. PD of Ant N – patch antenna (24GHz – n258)

- N–patch Low CH

No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)						per Beam Back-off (dB)	max ratio out of all beams						4cm2 PD(mW/cm2) at 10mm evaluation distance						max ratio out of all beams						
													100.0%	5.2%	2.0%	12.6%	46.6%	100.0%							64.7%	64.7%	4.1%	1.7%	9.6%	18.8%	61.3%
						S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)		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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
64	N	Patch	1		1	**0.30**	0.00	0.00	0.01	0.10	0.16		100.0%	0.7%	0.7%	2.4%	33.8%	54.4%	**0.11**	0.00	0.00	0.01	0.03	0.06	36.8%	36.8%	0.7%	0.7%	2.0%	11.5%	18.6%
65			3		1	**0.31**	0.00	0.00	0.01	0.09	0.14		100.0%	0.6%	0.3%	1.6%	28.4%	44.4%	**0.14**	0.00	0.00	0.01	0.03	0.05	43.1%	43.1%	0.6%	0.3%	1.6%	8.9%	16.0%
66			5		1	**0.30**	0.00	0.00	0.00	0.08	0.12		100.0%	1.0%	0.3%	1.0%	27.8%	38.4%	**0.12**	0.00	0.00	0.00	0.03	0.04	40.7%	40.7%	1.0%	0.3%	1.0%	8.6%	12.9%
67			7		1	**0.28**	0.00	0.00	0.01	0.09	0.11		100.0%	0.7%	0.4%	2.1%	32.7%	37.7%	**0.11**	0.00	0.00	0.01	0.03	0.05	38.8%	38.8%	0.7%	0.4%	1.8%	9.6%	17.4%
68			9		1	**0.26**	0.00	0.00	0.00	0.07	0.14		100.0%	0.4%	0.8%	1.6%	27.7%	55.9%	**0.12**	0.00	0.00	0.00	0.02	0.05	46.1%	46.1%	0.4%	0.8%	1.2%	8.6%	18.4%
69			14		2	**0.54**	0.01	0.00	0.02	0.15	0.35		100.0%	1.1%	0.7%	4.3%	28.6%	65.7%	**0.21**	0.01	0.00	0.02	0.06	0.13	39.3%	39.3%	0.9%	0.6%	3.7%	10.9%	24.5%
70			15		2	**0.39**	0.01	0.01	0.01	0.17	0.29		100.0%	1.3%	1.3%	3.0%	41.9%	72.6%	**0.17**	0.01	0.00	0.01	0.07	0.13	41.9%	41.9%	1.3%	1.0%	2.5%	18.8%	34.0%
71			16		2	**0.59**	0.00	0.00	0.01	0.22	0.29		100.0%	0.7%	0.2%	1.5%	36.9%	49.2%	**0.33**	0.00	0.00	0.01	0.07	0.13	55.6%	55.6%	0.5%	0.2%	1.3%	11.3%	21.4%
72			17		2	**0.78**	0.00	0.00	0.01	0.29	0.37		100.0%	0.4%	0.1%	0.6%	36.4%	47.2%	**0.39**	0.00	0.00	0.00	0.11	0.14	49.2%	49.2%	0.3%	0.1%	0.5%	13.9%	18.1%
73			21		2	**0.62**	0.00	0.00	0.00	0.21	0.29		100.0%	0.3%	0.6%	0.6%	33.4%	46.7%	**0.29**	0.00	0.00	0.00	0.08	0.10	46.5%	46.5%	0.3%	0.6%	0.5%	12.4%	16.5%
74			22		2	**0.53**	0.00	0.00	0.01	0.21	0.32		100.0%	0.8%	0.8%	1.3%	39.7%	59.9%	**0.25**	0.00	0.00	0.01	0.08	0.14	46.6%	46.6%	0.8%	0.6%	1.0%	15.0%	25.9%
75			23		2	**0.77**	0.00	0.00	0.00	0.28	0.37		100.0%	0.4%	0.1%	0.5%	36.3%	47.7%	**0.38**	0.00	0.00	0.00	0.11	0.14	49.8%	49.8%	0.3%	0.1%	0.4%	13.6%	18.7%
76			29		5	**0.61**	0.02	0.01	0.06	0.22	0.43		100.0%	3.4%	1.3%	10.2%	36.4%	69.8%	**0.27**	0.02	0.01	0.05	0.09	0.13	44.9%	44.9%	3.0%	1.1%	7.9%	14.4%	21.1%
77			30		5	**0.66**	0.01	0.01	0.03	0.20	0.42		100.0%	2.0%	2.0%	4.5%	30.8%	62.7%	**0.35**	0.01	0.01	0.02	0.10	0.17	52.5%	52.5%	1.7%	1.7%	3.6%	14.3%	25.6%
78			31		5	**1.44**	0.01	0.01	0.02	0.52	0.73		100.0%	0.6%	0.6%	1.1%	36.3%	50.5%	**0.62**	0.01	0.01	0.01	0.23	0.38	43.2%	43.2%	0.4%	0.6%	0.9%	16.2%	26.4%
79			32		5	**1.34**	0.01	0.00	0.02	0.46	0.78		100.0%	0.7%	0.2%	1.3%	34.5%	58.2%	**0.87**	0.01	0.00	0.01	0.20	0.38	64.7%	64.7%	0.6%	0.1%	1.0%	14.5%	28.3%
80			33		5	**1.33**	0.01	0.01	0.01	0.51	0.76		100.0%	1.1%	0.5%	1.0%	38.4%	57.3%	**0.73**	0.01	0.01	0.01	0.24	0.37	55.0%	55.0%	0.8%	0.4%	0.8%	18.2%	27.5%
81			38		5	**0.48**	0.02	0.01	0.06	0.15	0.38		100.0%	4.2%	1.5%	12.0%	32.0%	80.0%	**0.23**	0.02	0.01	0.04	0.07	0.12	48.2%	48.2%	3.8%	1.3%	9.3%	13.9%	25.1%
82			39		5	**1.18**	0.01	0.02	0.02	0.39	0.72		100.0%	1.1%	1.6%	1.8%	33.0%	61.1%	**0.38**	0.01	0.02	0.01	0.18	0.36	32.5%	32.5%	0.8%	1.4%	1.2%	15.4%	30.4%
83			40		5	**1.51**	0.01	0.00	0.01	0.56	0.69		100.0%	0.7%	0.2%	0.9%	37.3%	45.8%	**0.84**	0.01	0.00	0.01	0.26	0.32	56.0%	56.0%	0.6%	0.1%	0.7%	17.3%	21.3%
84			41		5	**1.37**	0.01	0.00	0.02	0.48	0.81		100.0%	0.7%	0.3%	1.1%	35.2%	58.7%	**0.83**	0.01	0.00	0.01	0.22	0.39	60.4%	60.4%	0.6%	0.2%	0.9%	15.7%	28.7%
85			129		1	0.09	0.00	0.00	0.00	0.03	**0.15**		60.5%	2.6%	0.7%	2.6%	19.7%	100.0%	0.03	0.00	0.00	0.00	0.01	**0.07**	45.4%	16.4%	2.6%	0.7%	2.0%	7.2%	45.4%
86			131		1	0.09	0.00	0.00	0.01	0.02	**0.15**		59.1%	2.0%	0.7%	3.4%	14.8%	100.0%	0.02	0.00	0.00	0.00	0.01	**0.07**	44.3%	16.1%	1.3%	0.7%	2.7%	6.7%	44.3%
87			133		1	0.10	0.01	0.00	0.00	0.03	**0.13**		77.3%	3.9%	0.8%	3.1%	19.5%	100.0%	0.03	0.00	0.00	0.00	0.01	**0.05**	40.6%	25.8%	3.1%	0.8%	2.3%	7.0%	40.6%
88			135		1	0.08	0.00	0.00	0.01	0.02	**0.13**		63.1%	2.3%	0.8%	4.6%	18.5%	100.0%	0.02	0.00	0.00	0.01	0.01	**0.06**	43.8%	17.7%	1.5%	0.8%	3.8%	7.7%	43.8%
89			137		1	0.10	0.00	0.00	0.01	0.02	**0.20**		51.8%	1.5%	0.5%	3.6%	8.2%	100.0%	0.03	0.00	0.00	0.01	0.01	**0.09**	46.7%	16.4%	1.5%	0.5%	2.6%	3.1%	46.7%
90			142		2	0.24	0.01	0.00	0.00	0.04	**0.38**		64.6%	2.6%	1.1%	0.8%	11.4%	100.0%	0.08	0.01	0.00	0.00	0.02	**0.18**	47.6%	21.4%	2.1%	0.8%	0.8%	5.8%	47.6%
91			143		2	0.24	0.01	0.00	0.01	0.05	**0.41**		58.9%	1.7%	0.2%	2.4%	11.6%	100.0%	0.08	0.01	0.00	0.01	0.02	**0.21**	50.7%	19.3%	1.2%	0.0%	1.9%	5.3%	50.7%
92			144		2	0.20	0.01	0.00	0.01	0.05	**0.34**		59.8%	3.2%	0.0%	1.8%	15.2%	100.0%	0.07	0.01	0.00	0.01	0.02	**0.19**	55.7%	21.7%	2.6%	0.0%	1.5%	7.0%	55.7%
93			145		2	0.14	0.01	0.00	0.02	0.06	**0.22**		64.7%	3.7%	1.4%	7.8%	27.1%	100.0%	0.04	0.01	0.00	0.01	0.02	**0.08**	36.2%	20.2%	2.8%	0.9%	6.0%	8.3%	36.2%
94			149		2	0.24	0.01	0.00	0.00	0.04	**0.42**		55.7%	1.9%	0.5%	0.5%	10.2%	100.0%	0.09	0.01	0.00	0.00	0.02	**0.24**	56.2%	20.6%	1.4%	0.5%	0.5%	5.0%	56.2%
95			150		2	0.23	0.01	0.00	0.01	0.06	**0.38**		58.6%	2.6%	0.3%	1.3%	15.6%	100.0%	0.08	0.01	0.00	0.00	0.03	**0.21**	53.9%	20.8%	2.1%	0.3%	1.0%	7.6%	53.9%
96			151		2	0.15	0.01	0.00	0.01	0.04	**0.23**		64.6%	2.7%	1.3%	4.9%	16.8%	100.0%	0.06	0.01	0.00	0.01	0.02	**0.12**	52.7%	24.8%	2.2%	0.9%	4.0%	7.1%	52.7%
97			157		5	0.57	0.02	0.00	0.01	0.13	**0.94**		60.3%	2.6%	0.4%	1.1%	13.9%	100.0%	0.22	0.02	0.00	0.01	0.07	**0.54**	56.9%	23.3%	2.0%	0.4%	1.0%	7.3%	56.9%
98			158		5	0.58	0.03	0.00	0.01	0.14	**0.89**		64.8%	3.6%	0.3%	1.3%	15.4%	100.0%	0.24	0.02	0.00	0.01	0.07	**0.53**	59.3%	26.7%	2.7%	0.3%	1.0%	8.2%	59.3%
99			159		5	0.52	0.04	0.00	0.01	0.16	**0.79**		66.0%	4.8%	0.4%	0.8%	19.7%	100.0%	0.23	0.03	0.00	0.00	0.09	**0.46**	58.5%	28.7%	3.8%	0.4%	0.5%	11.1%	58.5%
100			160		5	0.51	0.03	0.01	0.06	0.14	**0.84**		60.4%	3.0%	0.6%	6.7%	17.0%	100.0%	0.20	0.02	0.01	0.05	0.06	**0.38**	44.8%	23.8%	2.4%	0.6%	5.6%	6.8%	44.8%
101			161		5	0.41	0.01	0.01	0.08	0.15	**0.59**		68.5%	1.5%	1.3%	12.6%	25.9%	100.0%	0.12	0.01	0.01	0.06	0.06	**0.20**	34.2%	19.9%	1.3%	1.2%	9.6%	9.6%	34.2%
102			166		5	0.57	0.03	0.00	0.01	0.15	**0.94**		61.3%	2.8%	0.3%	0.9%	15.6%	100.0%	0.25	0.02	0.00	0.01	0.08	**0.57**	61.3%	26.4%	2.1%	0.3%	0.7%	8.7%	61.3%
103			167		5	0.57	0.03	0.00	0.01	0.15	**0.84**		68.0%	3.8%	0.1%	1.0%	17.3%	100.0%	0.24	0.03	0.00	0.01	0.08	**0.49**	58.1%	28.9%	3.2%	0.1%	0.7%	10.0%	58.1%
104			168		5	0.45	0.04	0.00	0.03	0.14	**0.76**		59.1%	5.2%	0.3%	3.7%	18.5%	100.0%	0.21	0.03	0.00	0.02	0.07	**0.41**	54.0%	28.0%	4.1%	0.3%	3.0%	9.4%	54.0%
105			169		5	0.49	0.02	0.01	0.06	0.15	**0.78**		62.1%	2.8%	0.8%	7.1%	19.0%	100.0%	0.18	0.02	0.01	0.05	0.06	**0.33**	42.1%	22.8%	2.2%	0.6%	5.9%	7.0%	42.1%
106			1	129	2	0.44	0.01	0.01	0.01	0.21	**0.44**		99.1%	2.3%	1.1%	2.7%	46.6%	100.0%	0.14	0.01	0.00	0.01	0.07	**0.16**	36.5%	31.8%	2.0%	0.9%	2.5%	15.1%	36.5%
107			3	131	2	**0.48**	0.01	0.00	0.02	0.14	0.39		100.0%	1.9%	0.8%	3.4%	29.1%	81.6%	**0.18**	0.01	0.00	0.01	0.05	0.14	38.4%	38.4%	1.7%	0.6%	2.7%	10.5%	29.8%
108			5	133	2	**0.53**	0.02	0.00	0.01	0.16	0.34		100.0%	3.0%	0.8%	2.1%	31.1%	63.8%	**0.23**	0.01	0.00	0.01	0.06	0.14	43.1%	43.1%	2.5%	0.6%	1.9%	10.6%	25.8%
109			7	135	2	**0.44**	0.01	0.00	0.02	0.16	0.34		100.0%	2.1%	0.9%	4.3%	36.3%	76.5%	**0.16**	0.01	0.00	0.02	0.06	0.15	35.4%	35.4%	1.6%	0.7%	3.7%	13.0%	33.8%
110			9	137	2	**0.44**	0.01	0.01	0.01	0.11	0.42		100.0%	1.8%	1.4%	3.0%	25.0%	96.1%	**0.20**	0.01	0.01	0.01	0.04	0.17	45.7%	45.7%	1.4%	1.4%	2.5%	8.2%	38.2%
111			14	142	4	**0.85**	0.02	0.01	0.03	0.21	0.75		100.0%	2.1%	1.7%	3.9%	25.1%	88.8%	**0.31**	0.02	0.01	0.03	0.09	0.27	36.6%	36.6%	1.9%	1.4%	3.1%	10.4%	31.6%
112			15	143	4	0.46	0.02	0.01	0.04	0.19	**0.59**		77.4%	3.7%	0.8%	6.6%	31.9%	100.0%	0.18	0.02	0.01	0.03	0.09	**0.29**	49.1%	31.1%	2.9%	0.8%	5.3%	15.3%	49.1%
113			16	144	4	**0.77**	0.02	0.00	0.03	0.25	0.55		100.0%	2.9%	0.1%	3.3%	32.8%	71.5%	**0.38**	0.02	0.00	0.02	0.09	0.26	49.5%	49.5%	2.5%	0.1%	2.7%	12.1%	34.1%
114			17	145	4	**0.95**	0.02	0.01	0.03	0.34	0.52		100.0%	1.6%	0.7%	3.1%	35.4%	54.4%	**0.45**	0.01	0.01	0.03	0.13	0.22	47.4%	47.4%	1.2%	0.6%	2.6%	14.0%	22.7%
115			21	149	4	**0.98**	0.01	0.01	0.01	0.33	0.95		100.0%	1.2%	1.1%	0.8%	33.7%	96.4%	**0.45**	0.01	0.01	0.01	0.14	0.44	45.5%	45.5%	1.0%	0.9%	0.6%	13.9%	44.9%
116			22	150	4	0.82	0.02	0.01	0.02	0.38	**0.92**		88.8%	2.1%	0.8%	1.8%	41.2%	100.0%	0.35	0.02	0.01	0.02	0.13	**0.44**	47.5%	38.2%	1.7%	0.7%	1.6%	14.3%	47.5%
117			23	151	4	**0.99**	0.01	0.01	0.02	0.39	0.69		100.0%	1.0%	0.5%	1.9%	39.1%	69.8%	**0.44**	0.01	0.00	0.02	0.15	0.33	44.8%	44.8%	1.0%	0.4%	1.6%	14.7%	33.1%
118			29	157	10	1.24	0.06	0.02	0.09	0.36	**1.50**		82.6%	3.8%	1.3%	5.7%	23.9%	100.0%	0.44	0.05	0.02	0.07	0.15	**0.79**	52.6%	29.5%	3.4%	1.1%	4.3%	10.0%	52.6%
119			30	158	10	1.23	0.06	0.02	0.07	0.44	**1.49**		82.3%	4.0%	1.5%	4.6%	29.3%	100.0%	0.52	0.05	0.02	0.05	0.21	**0.89**	59.9%	35.1%	3.3%	1.3%	3.6%	14.4%	59.9%
120			31	159	10	**2.08**	0.06	0.01	0.02	0.74	1.32		100.0%	2.7%	0.7%	1.1%	35.5%	63.3%	**0.86**	0.05	0.01	0.02	0.27	0.62	41.5%	41.5%	2.3%	0.6%	0.9%	13.0%	29.8%
121			32	160	10	**1.83**	0.04	0.01	0.10	0.61	1.15		100.0%	2.4%	0.5%	5.6%	33.5%	62.5%	**1.09**	0.04	0.01	0.09	0.26	0.50	59.4%	59.4%	2.0%	0.4%	4.6%	14.2%	27.0%
122			33	161	10	**1.71**	0.03	0.02	0.12	0.58	1.36		100.0%	1.9%	1.2%	7.0%	34.0%	79.7%	**0.89**	0.03	0.02	0.09	0.26	0.63	52.2%	52.2%	1.6%	1.1%	5.4%	15.3%	37.1%
123			38	166	10	1.08	0.06	0.02	0.07	0.33	**1.37**		79.0%	4.2%	1.1%	5.0%	23.8%	100.0%	0.36	0.05	0.01	0.05	0.17	**0.74**	54.4%	26.4%	3.7%	1.0%	3.8%	12.1%	54.4%
124			39	167	10	**1.74**	0.06	0.02	0.03	0.50	1.61		100.0%	3.6%	1.2%	1.8%	28.9%	92.1%	0.65	0.05	0.02	0.03	0.21	**0.78**	44.5%	37.5%	2.9%	1.0%	1.7%	11.9%	44.5%
125			40	168	10	**2.07**	0.05	0.01	0.05	0.75	1.22		100.0%	2.6%	0.2%	2.4%	36.5%	59.1%	**1.06**	0.04	0.01	0.05	0.34	0.53	51.5%	51.5%	2.0%	0.2%	2.2%	16.3%	25.7%
126			41	169	10	**1.93**	0.05	0.02	0.12	0.59	1.25		100.0%	2.5%	0.8%	6.1%	30.6%	64.7%	**0.98**	0.04	0.01	0.10	0.24	0.57	50.8%	50.8%	2.1%	0.7%	5.2%	12.6%	29.7%

- N–patch Mid CH

No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)						per Beam Back-off (dB)	max ratio out of all beams						4cm2 PD(mW/cm2) at 10mm evaluation distance						max ratio out of all beams						
													100.0%	3.1%	1.7%	12.6%	42.6%	100.0%							64.7%	64.7%	2.8%	1.7%	10.2%	19.1%	60.8%
						S4(Right)	S3(Left)	S5(Top)	S6(Bottom)	S1(Front)	S2(Rear)		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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
64	N	Patch	1		1	**0.28**	0.00	0.00	0.01	0.09	0.17		100.0%	0.7%	0.7%	3.6%	33.2%	59.6%	**0.11**	0.00	0.00	0.01	0.04	0.05	39.6%	39.6%	0.7%	0.4%	3.2%	12.9%	19.3%
65			3		1	**0.34**	0.00	0.00	0.01	0.11	0.13		100.0%	0.6%	0.3%	1.8%	31.0%	36.9%	**0.14**	0.00	0.00	0.01	0.04	0.04	42.2%	42.2%	0.6%	0.3%	1.5%	10.6%	13.0%
66			5		1	**0.32**	0.00	0.00	0.01	0.09	0.10		100.0%	0.9%	0.3%	1.6%	28.4%	32.2%	**0.12**	0.00	0.00	0.00	0.03	0.04	37.8%	37.8%	0.9%	0.3%	1.3%	8.8%	11.9%
67			7		1	**0.31**	0.00	0.00	0.01	0.11	0.09		100.0%	1.0%	0.3%	1.9%	36.0%	28.0%	**0.14**	0.00	0.00	0.00	0.04	0.03	44.3%	44.3%	0.6%	0.3%	1.3%	12.1%	9.2%
68			9		1	**0.27**	0.00	0.00	0.01	0.09	0.15		100.0%	0.7%	0.7%	1.8%	32.6%	53.1%	**0.13**	0.00	0.00	0.00	0.03	0.05	46.2%	46.2%	0.4%	0.7%	1.1%	11.0%	19.8%
69			14		2	**0.54**	0.01	0.00	0.03	0.17	0.34		100.0%	1.1%	0.6%	5.8%	31.0%	63.9%	**0.21**	0.01	0.00	0.03	0.07	0.14	38.3%	38.3%	0.9%	0.4%	4.9%	12.9%	26.7%
70			15		2	**0.42**	0.01	0.00	0.02	0.16	0.26		100.0%	1.4%	0.7%	4.1%	37.7%	62.3%	**0.16**	0.01	0.00	0.02	0.07	0.12	37.5%	37.5%	1.2%	0.5%	3.6%	16.3%	28.8%
71			16		2	**0.62**	0.00	0.00	0.01	0.26	0.27		100.0%	0.6%	0.2%	1.6%	42.6%	43.5%	**0.35**	0.00	0.00	0.01	0.10	0.12	55.6%	55.6%	0.5%	0.2%	1.1%	15.3%	19.5%
72			17		2	**0.80**	0.00	0.00	0.01	0.30	0.37		100.0%	0.5%	0.1%	0.6%	37.0%	45.6%	**0.42**	0.00	0.00	0.00	0.12	0.15	51.9%	51.9%	0.4%	0.1%	0.5%	14.5%	18.4%
73			21		2	**0.70**	0.00	0.00	0.01	0.26	0.31		100.0%	0.3%	0.6%	0.7%	37.4%	43.4%	**0.37**	0.00	0.00	0.00	0.09	0.10	52.8%	52.8%	0.1%	0.4%	0.4%	12.7%	14.4%
74			22		2	**0.53**	0.01	0.00	0.01	0.21	0.30		100.0%	0.9%	0.4%	1.9%	39.7%	55.5%	**0.25**	0.00	0.00	0.01	0.08	0.14	47.0%	47.0%	0.8%	0.4%	1.5%	15.6%	25.4%
75			23		2	**0.79**	0.00	0.00	0.00	0.29	0.37		100.0%	0.5%	0.1%	0.5%	36.9%	46.5%	**0.42**	0.00	0.00	0.00	0.11	0.15	52.4%	52.4%	0.4%	0.1%	0.4%	14.1%	19.1%
76			29		5	**0.65**	0.02	0.01	0.06	0.19	0.47		100.0%	2.6%	1.4%	9.5%	28.8%	71.7%	**0.27**	0.01	0.01	0.06	0.08	0.19	41.4%	41.4%	2.2%	1.2%	8.5%	12.2%	28.8%
77			30		5	**0.76**	0.02	0.01	0.04	0.25	0.41		100.0%	2.1%	1.6%	5.1%	33.5%	54.0%	**0.38**	0.01	0.01	0.03	0.10	0.17	50.6%	50.6%	1.8%	1.3%	4.2%	13.0%	22.9%
78			31		5	**1.57**	0.01	0.00	0.01	0.64	0.66		100.0%	0.6%	0.3%	0.9%	40.9%	42.1%	**0.72**	0.01	0.00	0.01	0.30	0.37	45.8%	45.8%	0.5%	0.2%	0.8%	18.9%	23.6%
79			32		5	**1.38**	0.01	0.00	0.02	0.49	0.78		100.0%	0.7%	0.2%	1.1%	35.6%	56.8%	**0.89**	0.01	0.00	0.01	0.21	0.37	64.7%	64.7%	0.7%	0.1%	0.9%	15.1%	27.2%
80			33		5	**1.31**	0.02	0.01	0.02	0.55	0.66		100.0%	1.5%	0.4%	1.2%	41.8%	50.6%	**0.74**	0.02	0.00	0.01	0.25	0.31	56.7%	56.7%	1.3%	0.3%	1.1%	19.1%	23.8%
81			38		5	**0.57**	0.02	0.01	0.06	0.15	0.42		100.0%	3.1%	1.7%	10.0%	25.9%	72.6%	**0.24**	0.02	0.01	0.05	0.06	0.16	41.6%	41.6%	2.8%	1.4%	8.4%	11.2%	27.8%
82			39		5	**1.23**	0.01	0.01	0.02	0.45	0.56		100.0%	0.7%	0.8%	1.5%	36.3%	45.1%	**0.42**	0.01	0.01	0.02	0.21	0.29	34.4%	34.4%	0.6%	0.6%	1.2%	17.1%	23.7%
83			40		5	**1.67**	0.01	0.00	0.01	0.67	0.73		100.0%	0.8%	0.1%	0.8%	40.4%	43.8%	**0.97**	0.01	0.00	0.01	0.31	0.32	58.1%	58.1%	0.7%	0.1%	0.7%	18.5%	19.4%
84			41		5	**1.33**	0.02	0.00	0.01	0.49	0.74		100.0%	1.2%	0.3%	0.8%	36.9%	55.7%	**0.80**	0.02	0.00	0.01	0.21	0.36	60.4%	60.4%	1.1%	0.3%	0.7%	15.9%	27.2%
85			129		1	0.09	0.00	0.00	0.00	0.03	**0.12**		75.4%	1.6%	0.8%	2.5%	21.3%	100.0%	0.03	0.00	0.00	0.00	0.01	**0.06**	47.5%	20.5%	1.6%	0.8%	1.6%	8.2%	47.5%
86			131		1	0.08	0.00	0.00	0.01	0.01	**0.11**		73.4%	1.8%	0.9%	4.6%	12.8%	100.0%	0.02	0.00	0.00	0.00	0.01	**0.05**	46.8%	20.2%	0.9%	0.9%	3.7%	5.5%	46.8%
87			133		1	0.09	0.00	0.00	0.00	0.02	**0.10**		84.6%	2.9%	1.0%	3.8%	22.1%	100.0%	0.03	0.00	0.00	0.00	0.01	**0.04**	42.3%	26.9%	1.9%	1.0%	2.9%	7.7%	42.3%
88			135		1	0.08	0.00	0.00	0.00	0.02	**0.10**		76.5%	2.0%	1.0%	3.9%	17.6%	100.0%	0.02	0.00	0.00	0.00	0.01	**0.04**	42.2%	21.6%	2.0%	1.0%	2.9%	7.8%	42.2%
89			137		1	0.10	0.00	0.00	0.01	0.02	**0.17**		56.2%	1.2%	0.6%	3.0%	10.7%	100.0%	0.03	0.00	0.00	0.00	0.01	**0.08**	47.9%	16.6%	0.6%	0.6%	2.4%	4.1%	47.9%
90			142		2	0.22	0.00	0.00	0.00	0.04	**0.28**		78.4%	1.1%	0.7%	1.1%	13.1%	100.0%	0.08	0.00	0.00	0.00	0.02	**0.15**	52.7%	27.6%	1.1%	0.7%	0.7%	6.0%	52.7%
91			143		2	0.24	0.00	0.00	0.01	0.05	**0.35**		67.9%	1.1%	0.0%	2.3%	14.6%	100.0%	0.08	0.00	0.00	0.01	0.02	**0.19**	55.0%	22.1%	0.9%	0.0%	1.7%	6.6%	55.0%
92			144		2	0.20	0.01	0.00	0.01	0.05	**0.27**		75.5%	1.9%	0.0%	1.9%	17.5%	100.0%	0.07	0.00	0.00	0.00	0.02	**0.15**	56.1%	26.4%	1.5%	0.0%	1.5%	7.8%	56.1%
93			145		2	0.13	0.01	0.00	0.01	0.06	**0.18**		73.9%	2.8%	1.7%	8.0%	31.3%	100.0%	0.05	0.00	0.00	0.01	0.02	**0.07**	40.3%	25.6%	2.3%	1.7%	6.3%	10.2%	40.3%
94			149		2	0.23	0.01	0.00	0.00	0.04	**0.34**		65.6%	1.5%	0.3%	0.6%	11.7%	100.0%	0.08	0.00	0.00	0.00	0.02	**0.20**	57.4%	22.7%	1.2%	0.3%	0.3%	5.2%	57.4%
95			150		2	0.23	0.00	0.00	0.00	0.05	**0.31**		73.1%	1.0%	0.3%	0.6%	16.3%	100.0%	0.08	0.00	0.00	0.00	0.02	**0.17**	55.1%	24.7%	1.0%	0.3%	0.6%	7.4%	55.1%
96			151		2	0.14	0.01	0.00	0.01	0.03	**0.17**		78.6%	2.9%	0.6%	7.5%	19.1%	100.0%	0.05	0.00	0.00	0.01	0.01	**0.09**	50.9%	27.7%	2.3%	0.6%	6.4%	7.5%	50.9%
97			157		5	0.54	0.01	0.00	0.00	0.11	**0.75**		72.0%	1.3%	0.4%	0.5%	15.3%	100.0%	0.21	0.01	0.00	0.00	0.06	**0.42**	56.2%	28.5%	0.9%	0.3%	0.5%	7.4%	56.2%
98			158		5	0.53	0.01	0.00	0.01	0.11	**0.68**		77.5%	1.6%	0.3%	1.5%	16.5%	100.0%	0.21	0.01	0.00	0.01	0.06	**0.42**	60.8%	31.1%	1.2%	0.1%	1.2%	8.6%	60.8%
99			159		5	0.51	0.02	0.00	0.01	0.14	**0.67**		76.7%	2.4%	0.5%	1.1%	20.3%	100.0%	0.22	0.01	0.00	0.01	0.07	**0.41**	60.8%	32.3%	1.8%	0.5%	0.8%	11.1%	60.8%
100			160		5	0.49	0.02	0.00	0.04	0.13	**0.66**		73.2%	3.0%	0.5%	5.4%	19.1%	100.0%	0.19	0.01	0.00	0.03	0.05	**0.31**	46.2%	28.2%	2.1%	0.5%	4.5%	7.7%	46.2%
101			161		5	0.36	0.01	0.00	0.06	0.13	**0.46**		77.9%	1.5%	0.6%	12.6%	28.1%	100.0%	0.11	0.01	0.00	0.05	0.05	**0.16**	34.2%	23.8%	1.1%	0.6%	10.2%	9.7%	34.2%
102			166		5	0.55	0.01	0.00	0.00	0.12	**0.73**		74.3%	1.5%	0.3%	0.5%	16.1%	100.0%	0.23	0.01	0.00	0.00	0.06	**0.45**	60.6%	31.5%	1.1%	0.3%	0.4%	8.6%	60.6%
103			167		5	0.55	0.01	0.00	0.01	0.13	**0.68**		80.6%	1.8%	0.1%	0.7%	19.4%	100.0%	0.22	0.01	0.00	0.01	0.07	**0.41**	60.4%	32.9%	1.3%	0.1%	0.7%	10.8%	60.4%
104			168		5	0.46	0.02	0.00	0.02	0.13	**0.66**		69.5%	2.3%	0.3%	2.3%	19.4%	100.0%	0.21	0.01	0.00	0.01	0.07	**0.37**	56.4%	31.1%	2.0%	0.3%	1.7%	10.6%	56.4%
105			169		5	0.46	0.02	0.00	0.04	0.13	**0.62**		74.5%	2.7%	0.5%	6.9%	21.0%	100.0%	0.17	0.01	0.00	0.04	0.05	**0.27**	43.5%	27.3%	1.9%	0.5%	5.8%	7.8%	43.5%
106			1	129	2	**0.44**	0.01	0.00	0.01	0.18	0.37		100.0%	1.6%	0.9%	2.9%	39.4%	84.0%	**0.15**	0.01	0.00	0.01	0.07	0.14	34.7%	34.7%	1.4%	0.7%	2.5%	15.3%	30.6%
107			3	131	2	**0.47**	0.01	0.00	0.02	0.14	0.30		100.0%	1.3%	0.6%	3.4%	29.5%	64.5%	**0.18**	0.01	0.00	0.01	0.05	0.12	38.9%	38.9%	1.1%	0.4%	2.8%	10.1%	25.4%
108			5	133	2	**0.52**	0.01	0.00	0.01	0.16	0.26		100.0%	2.3%	0.6%	2.5%	30.6%	49.7%	**0.21**	0.01	0.00	0.01	0.06	0.10	39.8%	39.8%	1.9%	0.4%	2.1%	10.6%	19.9%
109			7	135	2	**0.44**	0.01	0.00	0.01	0.17	0.23		100.0%	1.8%	0.5%	2.5%	37.7%	51.7%	**0.19**	0.01	0.00	0.01	0.06	0.10	41.8%	41.8%	1.6%	0.5%	2.0%	13.8%	21.4%
110			9	137	2	**0.45**	0.01	0.01	0.01	0.12	0.36		100.0%	1.3%	1.3%	2.0%	26.3%	81.1%	**0.22**	0.00	0.01	0.01	0.04	0.16	48.3%	48.3%	0.9%	1.1%	1.6%	8.5%	35.1%
111			14	142	4	**0.79**	0.01	0.01	0.04	0.22	0.61		100.0%	1.4%	1.1%	4.7%	28.3%	77.2%	**0.29**	0.01	0.01	0.03	0.10	0.23	36.2%	36.2%	1.3%	1.0%	3.8%	12.3%	29.1%
112			15	143	4	0.49	0.02	0.00	0.04	0.17	**0.53**		93.2%	3.0%	0.6%	7.4%	32.9%	100.0%	0.17	0.01	0.00	0.03	0.07	**0.29**	55.3%	32.5%	2.5%	0.6%	5.9%	13.9%	55.3%
113			16	144	4	**0.76**	0.02	0.00	0.02	0.29	0.45		100.0%	2.0%	0.1%	2.4%	38.5%	59.0%	**0.39**	0.01	0.00	0.02	0.12	0.22	51.7%	51.7%	1.7%	0.1%	2.0%	15.6%	28.9%
114			17	145	4	**0.93**	0.01	0.01	0.02	0.32	0.43		100.0%	1.3%	0.6%	2.6%	34.7%	45.8%	**0.45**	0.01	0.01	0.02	0.13	0.18	48.1%	48.1%	1.0%	0.5%	2.3%	14.2%	19.0%
115			21	149	4	**1.01**	0.01	0.01	0.01	0.33	0.79		100.0%	0.7%	0.6%	0.7%	32.9%	78.2%	**0.54**	0.01	0.01	0.01	0.12	0.37	53.1%	53.1%	0.7%	0.6%	0.5%	12.3%	36.2%
116			22	150	4	**0.85**	0.01	0.01	0.02	0.31	0.77		100.0%	1.3%	0.7%	2.0%	36.2%	90.5%	0.35	0.01	0.01	0.01	0.12	**0.39**	45.7%	41.7%	1.2%	0.6%	1.7%	13.6%	45.7%
117			23	151	4	**0.93**	0.01	0.00	0.02	0.39	0.55		100.0%	1.2%	0.4%	1.9%	41.7%	59.3%	**0.46**	0.01	0.00	0.02	0.16	0.26	49.1%	49.1%	1.0%	0.3%	1.6%	17.3%	27.9%
118			29	157	10	1.27	0.03	0.02	0.08	0.31	**1.40**		90.6%	2.1%	1.3%	5.4%	22.3%	100.0%	0.42	0.03	0.02	0.07	0.13	**0.67**	47.8%	29.8%	2.0%	1.1%	4.6%	9.4%	47.8%
119			30	158	10	**1.34**	0.02	0.02	0.08	0.45	1.21		100.0%	1.8%	1.3%	5.6%	33.2%	90.6%	0.58	0.02	0.02	0.06	0.21	**0.70**	52.1%	43.2%	1.6%	1.1%	4.6%	15.5%	52.1%
120			31	159	10	**2.11**	0.04	0.01	0.02	0.83	1.20		100.0%	1.8%	0.4%	0.9%	39.3%	56.6%	**0.88**	0.03	0.01	0.02	0.32	0.57	41.7%	41.7%	1.5%	0.4%	0.7%	15.1%	26.8%
121			32	160	10	**1.77**	0.03	0.01	0.07	0.60	1.09		100.0%	1.8%	0.5%	4.1%	34.1%	61.7%	**1.03**	0.03	0.01	0.06	0.24	0.43	58.2%	58.2%	1.6%	0.5%	3.4%	13.6%	24.5%
122			33	161	10	**1.61**	0.04	0.01	0.10	0.63	1.07		100.0%	2.5%	0.8%	6.1%	38.9%	66.3%	**0.91**	0.03	0.01	0.08	0.28	0.48	56.2%	56.2%	1.9%	0.7%	5.0%	17.5%	29.8%
123			38	166	10	1.22	0.03	0.02	0.07	0.30	**1.36**		89.4%	2.1%	1.2%	4.8%	21.8%	100.0%	0.39	0.03	0.02	0.05	0.14	**0.65**	48.0%	28.4%	2.0%	1.1%	4.0%	10.5%	48.0%
124			39	167	10	**1.77**	0.03	0.01	0.03	0.59	1.29		100.0%	1.8%	0.6%	1.6%	33.5%	73.1%	**0.73**	0.02	0.01	0.02	0.23	0.68	41.2%	41.2%	1.4%	0.6%	1.2%	12.9%	38.6%
125			40	168	10	**2.15**	0.03	0.01	0.03	0.84	1.17		100.0%	1.4%	0.2%	1.5%	39.1%	54.1%	**1.15**	0.03	0.01	0.03	0.36	0.49	53.2%	53.2%	1.2%	0.2%	1.4%	16.8%	22.9%
126			41	169	10	**1.78**	0.05	0.01	0.07	0.59	1.02		100.0%	2.9%	0.7%	3.8%	33.1%	57.2%	**0.90**	0.04	0.01	0.06	0.23	0.43	50.8%	50.8%	2.0%	0.6%	3.3%	13.0%	24.2%

- N–patch High CH

													max ratio out of all beams													**max ratio out of all beams**						
No.	Module	Type	Beam ID_1	Bema ID_2	Feed no.	4cm2 PD(mW/cm2)							**100.0%**	**2.8%**	**3.4%**	**13.1%**	**45.2%**	**100.0%**	4cm2 PD(mW/cm2) at 10mm evaluation distance						**67.9%**	**67.9%**	**2.5%**	**3.2%**	**10.6%**	**22.0%**	**62.0%**
						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 (Fornt 2mm)/(worst-surface 2mm)	ratio (Rear 2mm)/(worst-surface 2mm)	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)
64	N	Patch	1		1	**0.27**	0.00	0.00	0.01	0.10	0.16		100.0%	0.7%	0.7%	3.0%	35.4%	58.3%	**0.11**	0.00	0.00	0.01	0.04	0.05	38.7%	38.7%	0.7%	0.7%	2.6%	13.7%	18.5%
65			3		1	**0.36**	0.00	0.00	0.01	0.12	0.12		100.0%	0.8%	0.3%	1.7%	31.9%	34.1%	**0.16**	0.00	0.00	0.01	0.04	0.04	42.9%	42.9%	0.8%	0.3%	1.4%	10.2%	10.8%
66			5		1	**0.34**	0.00	0.00	0.01	0.10	0.10		100.0%	0.9%	0.6%	2.1%	30.1%	30.4%	**0.13**	0.00	0.00	0.01	0.03	0.04	38.7%	38.7%	0.6%	0.6%	1.8%	9.8%	10.4%
67			7		1	**0.33**	0.00	0.00	0.01	0.12	0.11		100.0%	1.2%	0.3%	2.1%	36.6%	32.0%	**0.16**	0.00	0.00	0.01	0.04	0.03	49.1%	49.1%	0.9%	0.3%	1.8%	12.5%	10.4%
68			9		1	**0.25**	0.00	0.00	0.01	0.09	0.13		100.0%	0.8%	0.8%	2.4%	35.0%	52.4%	**0.11**	0.00	0.00	0.00	0.03	0.04	41.7%	41.7%	0.8%	0.8%	1.2%	13.4%	17.3%
69			14		2	**0.55**	0.01	0.01	0.03	0.17	0.34		100.0%	1.1%	0.9%	4.6%	30.2%	62.3%	**0.20**	0.00	0.00	0.02	0.07	0.13	37.2%	37.2%	0.7%	0.7%	3.6%	11.8%	24.4%
70			15		2	**0.45**	0.01	0.01	0.02	0.17	0.30		100.0%	1.1%	1.3%	4.3%	37.4%	66.4%	**0.17**	0.00	0.01	0.02	0.08	0.11	38.1%	38.1%	0.9%	1.1%	3.4%	16.8%	24.7%
71			16		2	**0.61**	0.01	0.00	0.01	0.27	0.23		100.0%	0.8%	0.2%	1.7%	43.7%	38.3%	**0.34**	0.01	0.00	0.01	0.11	0.09	56.4%	56.4%	0.8%	0.2%	1.2%	18.0%	14.7%
72			17		2	**0.80**	0.01	0.00	0.01	0.32	0.33		100.0%	0.6%	0.1%	1.0%	39.6%	41.5%	**0.43**	0.00	0.00	0.01	0.12	0.12	53.6%	53.6%	0.5%	0.1%	0.6%	15.2%	14.8%
73			21		2	**0.71**	0.00	0.00	0.01	0.27	0.32		100.0%	0.4%	0.6%	1.0%	38.7%	45.2%	**0.39**	0.00	0.00	0.01	0.10	0.10	55.2%	55.2%	0.4%	0.4%	0.7%	13.5%	14.5%
74			22		2	**0.58**	0.01	0.01	0.01	0.23	0.31		100.0%	0.9%	0.9%	2.1%	39.8%	53.6%	**0.26**	0.00	0.00	0.01	0.10	0.12	45.0%	45.0%	0.7%	0.7%	1.6%	17.0%	20.7%
75			23		2	**0.79**	0.00	0.00	0.01	0.31	0.33		100.0%	0.5%	0.1%	0.9%	39.6%	41.7%	**0.42**	0.00	0.00	0.00	0.12	0.12	53.5%	53.5%	0.5%	0.1%	0.5%	15.0%	15.4%
76			29		5	0.66	0.02	0.02	0.08	0.15	**0.66**		99.8%	2.7%	2.4%	11.5%	22.9%	100.0%	0.24	0.02	0.01	0.06	0.07	**0.25**	38.1%	36.0%	2.4%	2.1%	9.7%	10.8%	38.1%
77			30		5	**0.80**	0.02	0.02	0.05	0.26	0.57		100.0%	1.9%	2.6%	6.0%	32.0%	71.0%	**0.33**	0.01	0.02	0.04	0.12	0.20	40.6%	40.6%	1.4%	2.3%	4.8%	15.1%	24.9%
78			31		5	**1.73**	0.01	0.01	0.01	0.76	0.67		100.0%	0.6%	0.5%	0.7%	43.8%	38.7%	**0.87**	0.01	0.01	0.01	0.35	0.33	50.6%	50.6%	0.5%	0.4%	0.6%	20.2%	19.2%
79			32		5	**1.26**	0.01	0.01	0.02	0.50	0.72		100.0%	1.0%	0.4%	1.7%	39.8%	57.5%	**0.86**	0.01	0.00	0.02	0.21	0.34	67.9%	67.9%	1.0%	0.3%	1.4%	17.0%	27.1%
80			33		5	**1.29**	0.02	0.01	0.02	0.58	0.63		100.0%	1.8%	0.5%	1.9%	45.2%	48.5%	**0.80**	0.02	0.01	0.02	0.28	0.27	61.7%	61.7%	1.5%	0.5%	1.7%	22.0%	20.9%
81			38		5	0.55	0.02	0.02	0.07	0.17	**0.56**		99.1%	2.7%	3.4%	13.1%	31.2%	100.0%	0.19	0.01	0.02	0.06	0.08	**0.20**	35.9%	34.8%	2.5%	3.2%	10.6%	13.8%	35.9%
82			39		5	**1.42**	0.01	0.02	0.02	0.51	0.65		100.0%	0.7%	1.1%	1.7%	36.0%	45.8%	**0.53**	0.01	0.01	0.02	0.25	0.30	37.3%	37.3%	0.7%	1.0%	1.3%	17.5%	21.5%
83			40		5	**1.72**	0.01	0.00	0.01	0.77	0.78		100.0%	0.7%	0.2%	0.8%	44.7%	45.3%	**1.11**	0.01	0.00	0.01	0.35	0.35	64.4%	64.4%	0.6%	0.1%	0.6%	20.2%	20.1%
84			41		5	**1.24**	0.02	0.01	0.02	0.51	0.66		100.0%	1.4%	0.6%	1.4%	40.9%	53.1%	**0.77**	0.02	0.01	0.01	0.24	0.29	62.1%	62.1%	1.3%	0.5%	0.9%	19.3%	23.3%
85			129		1	0.09	0.00	0.00	0.00	0.03	**0.11**		83.8%	1.0%	1.0%	2.9%	25.7%	100.0%	0.02	0.00	0.00	0.00	0.01	**0.05**	48.6%	22.9%	1.0%	1.0%	1.9%	9.5%	48.6%
86			131		1	0.07	0.00	0.00	0.00	0.02	**0.09**		82.6%	1.2%	1.2%	4.7%	17.4%	100.0%	0.02	0.00	0.00	0.00	0.01	**0.04**	47.7%	22.1%	1.2%	1.2%	3.5%	7.0%	47.7%
87			133		1	0.08	0.00	0.00	0.00	0.02	**0.08**		96.4%	2.4%	1.2%	4.8%	24.1%	100.0%	0.02	0.00	0.00	0.00	0.01	**0.04**	43.4%	27.7%	1.2%	1.2%	3.6%	8.4%	43.4%
88			135		1	0.08	0.00	0.00	0.00	0.02	**0.09**		84.3%	1.1%	1.1%	3.4%	19.1%	100.0%	0.02	0.00	0.00	0.00	0.01	**0.04**	40.4%	20.2%	1.1%	1.1%	3.4%	7.9%	40.4%
89			137		1	0.08	0.00	0.00	0.01	0.02	**0.13**		56.4%	0.8%	0.8%	3.8%	16.5%	100.0%	0.02	0.00	0.00	0.00	0.01	**0.07**	51.1%	15.8%	0.8%	0.0%	3.0%	6.0%	51.1%
90			142		2	0.20	0.00	0.00	0.00	0.04	**0.23**		86.8%	0.4%	0.9%	0.9%	15.9%	100.0%	0.07	0.00	0.00	0.00	0.02	**0.12**	54.6%	29.5%	0.4%	0.9%	0.4%	7.0%	54.6%
91			143		2	0.20	0.00	0.00	0.01	0.06	**0.28**		72.1%	0.7%	0.4%	2.9%	22.1%	100.0%	0.06	0.00	0.00	0.01	0.03	**0.16**	58.6%	22.5%	0.7%	0.4%	2.5%	8.9%	58.6%
92			144		2	0.19	0.00	0.00	0.00	0.05	**0.22**		88.0%	0.9%	0.0%	1.4%	21.2%	100.0%	0.06	0.00	0.00	0.00	0.02	**0.12**	57.1%	29.5%	0.9%	0.0%	1.4%	9.2%	57.1%
93			145		2	0.12	0.00	0.00	0.01	0.05	**0.15**		83.7%	2.0%	2.0%	8.8%	34.0%	100.0%	0.04	0.00	0.00	0.01	0.02	**0.06**	42.9%	24.5%	2.0%	1.4%	6.8%	11.6%	42.9%
94			149		2	0.19	0.00	0.00	0.00	0.05	**0.26**		73.3%	0.8%	0.4%	1.2%	18.0%	100.0%	0.06	0.00	0.00	0.00	0.02	**0.15**	60.4%	22.0%	0.8%	0.4%	0.8%	7.1%	60.4%
95			150		2	0.21	0.00	0.00	0.00	0.05	**0.26**		82.4%	0.8%	0.4%	0.8%	19.5%	100.0%	0.07	0.00	0.00	0.00	0.02	**0.14**	56.3%	26.2%	0.4%	0.4%	0.8%	8.2%	56.3%
96			151		2	0.12	0.00	0.00	0.01	0.04	**0.13**		92.5%	2.2%	0.7%	7.5%	30.6%	100.0%	0.04	0.00	0.00	0.01	0.02	**0.07**	53.0%	31.3%	2.2%	0.7%	6.0%	14.2%	53.0%
97			157		5	0.49	0.01	0.00	0.01	0.11	**0.56**		86.9%	1.1%	0.4%	0.9%	18.8%	100.0%	0.19	0.00	0.00	0.00	0.05	**0.33**	58.1%	33.6%	0.7%	0.4%	0.5%	8.9%	58.1%
98			158		5	0.45	0.01	0.00	0.01	0.11	**0.52**		86.8%	1.3%	0.4%	1.9%	20.9%	100.0%	0.17	0.01	0.00	0.01	0.06	**0.31**	59.1%	32.4%	1.0%	0.2%	1.5%	10.9%	59.1%
99			159		5	0.45	0.01	0.00	0.01	0.13	**0.54**		84.5%	1.9%	0.4%	1.9%	24.8%	100.0%	0.18	0.01	0.00	0.01	0.07	**0.33**	62.0%	33.0%	1.5%	0.4%	1.3%	13.4%	62.0%
100			160		5	0.39	0.01	0.00	0.03	0.14	**0.50**		78.3%	2.2%	0.6%	6.8%	28.3%	100.0%	0.15	0.01	0.00	0.03	0.06	**0.24**	48.6%	29.1%	1.8%	0.4%	5.6%	12.2%	48.6%
101			161		5	0.29	0.01	0.00	0.05	0.12	**0.38**		77.0%	1.3%	0.5%	12.7%	30.4%	100.0%	0.09	0.00	0.00	0.04	0.04	**0.13**	34.9%	23.0%	0.8%	0.5%	10.3%	10.3%	34.9%
102			166		5	0.48	0.01	0.00	0.00	0.11	**0.55**		87.2%	1.1%	0.4%	0.7%	19.5%	100.0%	0.20	0.00	0.00	0.00	0.06	**0.34**	61.8%	35.3%	0.7%	0.2%	0.5%	9.9%	61.8%
103			167		5	0.49	0.01	0.00	0.01	0.13	**0.54**		90.3%	1.3%	0.2%	1.1%	24.8%	100.0%	0.18	0.01	0.00	0.01	0.07	**0.32**	60.0%	33.7%	0.9%	0.2%	0.9%	12.8%	60.0%
104			168		5	0.42	0.01	0.00	0.01	0.13	**0.54**		77.6%	1.9%	0.4%	2.6%	23.3%	100.0%	0.18	0.01	0.00	0.01	0.07	**0.32**	59.6%	32.8%	1.5%	0.2%	2.0%	13.0%	59.6%
105			169		5	0.37	0.01	0.00	0.04	0.14	**0.47**		78.3%	2.1%	0.4%	7.7%	29.6%	100.0%	0.13	0.01	0.00	0.03	0.06	**0.22**	46.1%	27.9%	1.5%	0.4%	6.2%	12.2%	46.1%
106			1	129	2	**0.43**	0.01	0.00	0.01	0.16	0.31		100.0%	1.4%	0.7%	3.0%	36.8%	72.4%	**0.14**	0.01	0.00	0.01	0.06	0.12	33.7%	33.7%	1.2%	0.7%	2.3%	13.6%	28.1%
107			3	131	2	**0.47**	0.01	0.00	0.01	0.15	0.25		100.0%	1.3%	0.8%	3.0%	31.1%	52.9%	**0.19**	0.01	0.00	0.01	0.05	0.09	40.6%	40.6%	1.1%	0.8%	2.5%	10.4%	18.4%
108			5	133	2	**0.51**	0.01	0.00	0.01	0.16	0.19		100.0%	1.6%	0.6%	2.7%	32.0%	37.5%	**0.20**	0.01	0.00	0.01	0.06	0.07	38.8%	38.8%	1.4%	0.6%	2.2%	11.8%	13.5%
109			7	135	2	**0.46**	0.01	0.00	0.01	0.17	0.21		100.0%	1.5%	0.6%	2.8%	36.5%	45.8%	**0.21**	0.01	0.00	0.01	0.06	0.08	44.5%	44.5%	1.3%	0.6%	2.2%	13.6%	16.8%
110			9	137	2	**0.39**	0.01	0.00	0.01	0.13	0.30		100.0%	1.3%	1.0%	2.8%	33.0%	76.7%	**0.18**	0.00	0.00	0.01	0.05	0.14	46.3%	46.3%	1.0%	1.0%	2.3%	11.8%	36.3%
111			14	142	4	**0.78**	0.01	0.01	0.03	0.24	0.55		100.0%	1.3%	1.5%	3.7%	30.7%	71.4%	**0.28**	0.01	0.01	0.02	0.09	0.20	35.9%	35.9%	1.0%	1.3%	3.1%	12.0%	25.8%
112			15	143	4	**0.50**	0.01	0.01	0.03	0.19	0.46		100.0%	2.6%	1.8%	6.8%	37.8%	92.2%	0.20	0.01	0.01	0.03	0.09	**0.27**	54.7%	39.8%	1.8%	1.6%	5.4%	17.5%	54.7%
113			16	144	4	**0.71**	0.01	0.00	0.01	0.29	0.37		100.0%	1.3%	0.3%	2.0%	41.2%	52.6%	**0.38**	0.01	0.00	0.01	0.13	0.19	54.0%	54.0%	1.0%	0.3%	1.7%	18.1%	27.1%
114			17	145	4	**0.91**	0.01	0.01	0.02	0.35	0.37		100.0%	1.5%	0.5%	2.2%	38.5%	40.5%	**0.48**	0.01	0.00	0.02	0.13	0.14	52.4%	52.4%	1.2%	0.4%	1.8%	13.7%	15.0%
115			21	149	4	**0.98**	0.01	0.01	0.01	0.35	0.62		100.0%	0.6%	0.5%	1.1%	35.5%	63.6%	**0.55**	0.01	0.00	0.01	0.12	0.30	56.0%	56.0%	0.5%	0.4%	0.9%	12.0%	30.7%
116			22	150	4	**0.86**	0.01	0.01	0.02	0.32	0.67		100.0%	1.1%	0.9%	2.6%	36.9%	77.9%	**0.34**	0.01	0.01	0.02	0.13	0.32	39.9%	39.9%	0.9%	0.8%	2.1%	15.2%	37.3%
117			23	151	4	**0.91**	0.01	0.00	0.02	0.39	0.46		100.0%	1.4%	0.4%	1.7%	43.0%	50.4%	**0.48**	0.01	0.00	0.02	0.15	0.19	52.5%	52.5%	1.1%	0.3%	1.7%	16.7%	21.1%
118			29	157	10	1.20	0.03	0.03	0.09	0.27	**1.23**		97.8%	2.3%	2.0%	7.5%	21.6%	100.0%	0.39	0.03	0.02	0.08	0.12	**0.53**	43.4%	31.6%	2.1%	1.8%	6.2%	9.6%	43.4%
119			30	158	10	**1.31**	0.03	0.03	0.08	0.43	1.11		100.0%	2.4%	1.9%	6.2%	32.9%	84.8%	**0.56**	0.02	0.02	0.06	0.21	0.53	42.8%	42.8%	1.8%	1.6%	4.8%	16.2%	40.7%
120			31	159	10	**2.22**	0.02	0.02	0.03	0.93	1.07		100.0%	1.0%	0.7%	1.2%	42.0%	48.3%	**1.06**	0.02	0.02	0.02	0.39	0.50	47.8%	47.8%	0.9%	0.7%	1.0%	17.6%	22.3%
121			32	160	10	**1.57**	0.03	0.01	0.07	0.56	1.01		100.0%	1.8%	0.8%	4.3%	35.8%	64.0%	**0.95**	0.03	0.01	0.06	0.23	0.38	60.4%	60.4%	1.7%	0.7%	3.5%	14.5%	23.9%
122			33	161	10	**1.59**	0.05	0.01	0.08	0.69	0.91		100.0%	2.8%	0.8%	4.7%	43.3%	57.3%	**0.96**	0.03	0.01	0.06	0.31	0.33	60.5%	60.5%	2.1%	0.7%	3.8%	19.6%	21.0%
123			38	166	10	1.10	0.03	0.03	0.09	0.24	**1.23**		89.5%	2.1%	2.3%	7.2%	19.7%	100.0%	0.35	0.02	0.03	0.07	0.13	**0.58**	47.0%	28.6%	1.8%	2.0%	5.9%	10.5%	47.0%
124			39	167	10	**1.86**	0.02	0.02	0.04	0.67	1.11		100.0%	1.1%	1.0%	2.3%	36.1%	59.9%	**0.69**	0.02	0.02	0.03	0.27	0.54	37.4%	37.4%	0.8%	0.9%	1.8%	14.7%	29.1%
125			40	168	10	**2.17**	0.02	0.01	0.03	0.88	1.06		100.0%	1.0%	0.3%	1.4%	40.5%	49.0%	**1.29**	0.02	0.01	0.02	0.39	0.46	59.4%	59.4%	0.8%	0.2%	1.0%	18.0%	21.4%
126			41	169	10	**1.54**	0.04	0.02	0.06	0.60	0.85		100.0%	2.7%	1.0%	3.6%	38.9%	55.4%	**0.90**	0.03	0.01	0.04	0.27	0.35	58.2%	58.2%	1.9%	0.9%	2.9%	17.3%	22.6%