



Qualcomm Technologies, Inc.

ZJY Myra SUB6 mmW Power Density Simulation Report

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Qualcomm Technologies, Inc.
5775 Morehouse Drive
San Diego, CA 92121
U.S.A.

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Qualcomm
2021-08-21 06:16:10 UTC
rfware@zynosys.com

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rfware@zjynetsys.com

1 Electromagnetic simulation method for power density

1.1 EM simulation

1.1.1 EM simulation tool description

The mmWave power density (PD) simulation method for calculating PD (Power Density) for mobile phones with mmWave antenna modules is available in ANSYS Electromagnetics suite HFSS ver. 21.1 (2021 R1) 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 HFSS ver. 21.1 (2021 R1) is implemented based on Finite Element Method (FEM), which operates in the frequency domain.

1.1.2 Mesh and convergence criteria

ANSYS Electromagnetic suite HFSS ver. 21.1 (2021 R1) uses the Finite Element Method (FEM) to solve the structure for 3D EM simulations to analyze power density. The volume area containing the simulated object should be subdivided into electrically small parts called finite elements with unknown functions. To subdivide system, the adaptive mesh technique in ANSYS Electromagnetics suite HFSS ver. 21.1 (2021 R1) is used. ANSYS Electromagnetics suite HFSS ver. 21.1 (2021 R1) 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 iterations in ANSYS Electromagnetics suite HFSS ver. 21.1 (2021 R1) is defined as convergence criteria, delta S, and the iterative adaptive mesh process repeats until the delta S is met. In ANSYS Electromagnetics suite HFSS ver. 21.1 (2021 R1), the accuracy of converged results depends on the delta S. Figure 1 is an example of final adaptive mesh of the device (cross-section of top view).

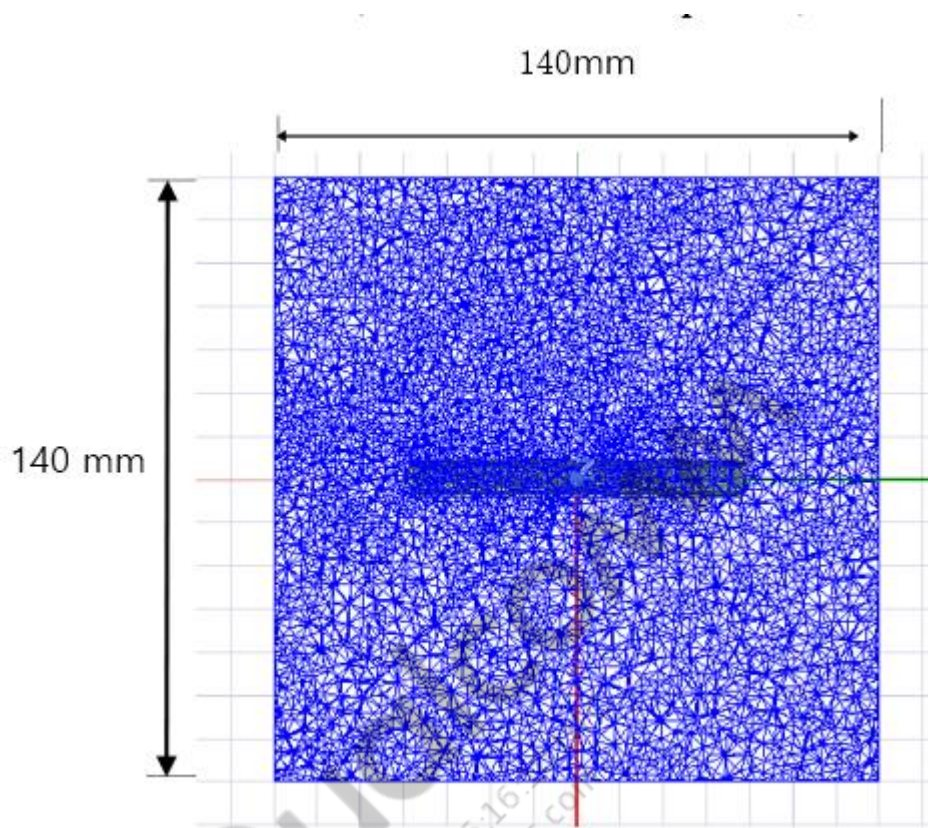


Figure 1-1: Example of HFSS mesh in a model of the device (Top view)

1.1.3 Time-averaged power density calculation

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

(S) 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 HFSS ver. 21.1 (2021 R1).

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

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

$$PD_{av} = \frac{1}{A} \int_A \vec{S} \cdot d\vec{s} = \frac{1}{2A} \int_A |\text{Re}(\vec{E} \times \vec{H}^*)| \cdot d\vec{s}$$

1.2 Simulation setup

1.2.1 Modeling for simulation

The simulation approach to perform PD assessment for a smartphone requires accurate modeling for mmWave antenna module as well as the smartphone itself. 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 QMT0# and QMT1#. On the front side view, QMT0# is placed at the left side and antennas are facing the left side of the device. QMT1# is placed on the right side and antennas are facing the right side.

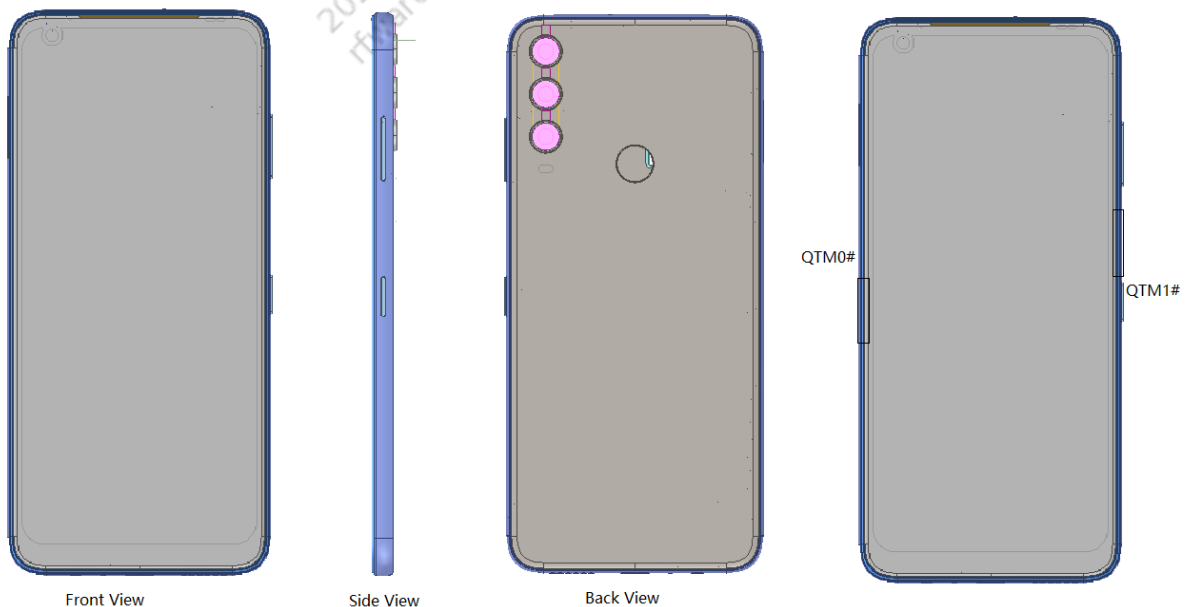


Figure 1-2: HFSS simulation model which is mounted two mmWave antenna modules

1.2.2 PD evaluation surfaces

Figure 1-3 shows the PD evaluation planes and truncation area of the simulation model to find worst case surfaces for evaluation. Table 1-1 shows the surfaces selected for PD evaluation planes for QTM#0 and QTM#1.

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 1-1: PD evaluation surfaces

	Front	Back	Left From Front View	Right From Front View	Top	Bottom
	S1	S2	S3	S4	S5	S6
QTM#0	√	√	√	√	√	√
QTM#1	√	√	√	√	√	√

1.2.3 Radiation boundary condition

For radiation boundary, the 2nd order absorbing boundary condition (ABC) is used for all simulations in this report. This radiation boundary simulates an electrically open surface that allows waves to radiate infinitely far into space. The system absorbs the wave via the 2nd order radiation boundary, essentially ballooning the boundary infinitely far away from the structure and into space. The radiation boundaries may also be placed relatively close to a structure and can be of arbitrary shape.

Per ANSYS recommendations for their simulation tool, the radiation boundary plane must be located at least a quarter wavelength from strongly radiating structure, or at least a tenth of a wavelength from a weakly radiating structure. In this simulation report, about two or three wavelengths spacing from the device surfaces in all main beam directions are applied to ensure convergence.

By changing convergence error (i.e., maximum magnitude delta S) from 2% to 4% and moving the radiation boundary closer towards the device by 20%, the combined influence in PD value is < 0.04 dB which confirms that the simulation model is reliable using this setup.

1.2.4 Source excitation condition

Each of the three 5G mmWave array modules is the same part containing a 1x4 element array of dual-polarization patch antennas. The number of antenna ports of QTM#0 and QTM#1 for source excitation is equal to 16. The port of each patch antenna is separated in frequency and polarization. That is, the ports of each patch antenna are divided into a feed for 28 GHz and a feed for 39 GHz, and a vertical polarity feed and a horizontal polarity feed are divided.

Figure 1-3 shows the QTM#1 module structure and surrounding structure. The QTM#1 module is encrypted in the ANSYS Electromagnetics suite (HFSS) and can only check the feeding position

is encrypted in the ANSYS Electromagnetics suite (HFSS) and can only check the feeding position.

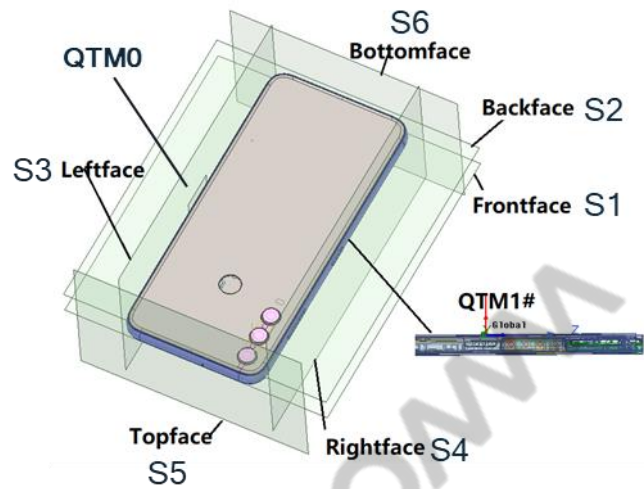


Figure 1-3: EUT simulation model

After finishing 3D full wave electromagnetic simulation of modeling structure, the magnitude and phase information can be loaded for each port by using “Edit Sources” function in ANSYS Electromagnetics suite (HFSS). Figure 4 shows an example of antenna port excitations.

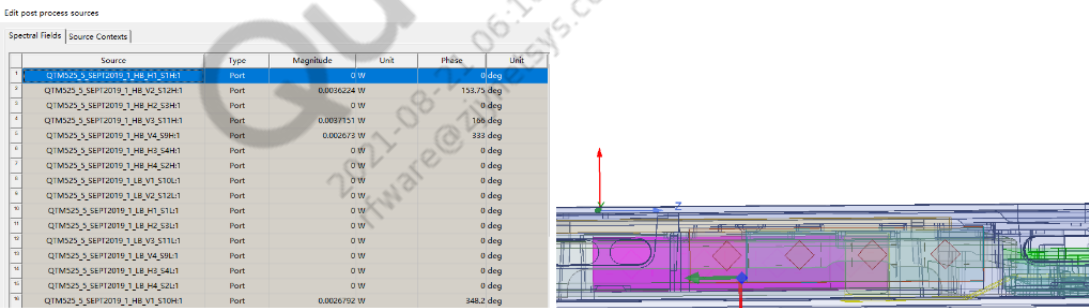


Figure 1-4: An example of port excitation (QTM#1)

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 Codebook

The codebook supported by this EUT is shown in Table 2-1 below.

Table 2-1: EUT codebook

▪ N261 codebook

Band	Beam_ID	Module	Ant_Type	Ant_Feed	Paired_With
261	0	1	PATCH	1	128
261	1	0	PATCH	1	129
261	2	1	PATCH	1	130
261	3	0	PATCH	1	131
261	4	0	PATCH	1	132
261	5	1	PATCH	2	133
261	6	1	PATCH	2	134
261	7	1	PATCH	2	135
261	8	1	PATCH	2	136
261	9	0	PATCH	2	137
261	10	0	PATCH	2	138
261	11	0	PATCH	2	139
261	12	0	PATCH	2	140
261	13	1	PATCH	2	141
261	14	1	PATCH	2	142
261	15	1	PATCH	2	143
261	16	0	PATCH	2	144
261	17	0	PATCH	2	145
261	18	0	PATCH	2	146
261	19	1	PATCH	4	147
261	20	1	PATCH	4	148
261	21	1	PATCH	4	149
261	22	1	PATCH	4	150
261	23	1	PATCH	4	151
261	24	0	PATCH	4	152
261	25	0	PATCH	4	153

261	26	0	PATCH	4	154
261	27	0	PATCH	4	155
261	28	0	PATCH	4	156
261	29	1	PATCH	4	157
261	30	1	PATCH	4	158
261	31	1	PATCH	4	159
261	32	1	PATCH	4	160
261	33	0	PATCH	4	161
261	34	0	PATCH	4	162
261	35	0	PATCH	4	163
261	36	0	PATCH	4	164
261	128	1	PATCH	1	0
261	129	0	PATCH	1	1
261	130	1	PATCH	1	2
261	131	0	PATCH	1	3
261	132	0	PATCH	1	4
261	133	1	PATCH	2	5
261	134	1	PATCH	2	6
261	135	1	PATCH	2	7
261	136	1	PATCH	2	8
261	137	0	PATCH	2	9
261	138	0	PATCH	2	10
261	139	0	PATCH	2	11
261	140	0	PATCH	2	12
261	141	1	PATCH	2	13
261	142	1	PATCH	2	14
261	143	1	PATCH	2	15
261	144	0	PATCH	2	16
261	145	0	PATCH	2	17
261	146	0	PATCH	2	18
261	147	1	PATCH	4	19
261	148	1	PATCH	4	20
261	149	1	PATCH	4	21
261	150	1	PATCH	4	22
261	151	1	PATCH	4	23
261	152	0	PATCH	4	24

261	153	0	PATCH	4	25
261	154	0	PATCH	4	26
261	155	0	PATCH	4	27
261	156	0	PATCH	4	28
261	157	1	PATCH	4	29
261	158	1	PATCH	4	30
261	159	1	PATCH	4	31
261	160	1	PATCH	4	32
261	161	0	PATCH	4	33
261	162	0	PATCH	4	34
261	163	0	PATCH	4	35
261	164	0	PATCH	4	36

- N260 codebook

Band	Beam_ID	Module	Ant_Type	Ant_Feed	Paired_With
260	0	1	PATCH	1	128
260	1	0	PATCH	1	129
260	2	1	PATCH	1	130
260	3	0	PATCH	1	131
260	4	0	PATCH	1	132
260	5	0	PATCH	1	133
260	6	1	PATCH	2	134
260	7	1	PATCH	2	135
260	8	1	PATCH	2	136
260	9	1	PATCH	2	137
260	10	0	PATCH	2	138
260	11	0	PATCH	2	139
260	12	0	PATCH	2	140
260	13	0	PATCH	2	141
260	14	1	PATCH	2	142
260	15	1	PATCH	2	143
260	16	1	PATCH	2	144
260	17	0	PATCH	2	145
260	18	0	PATCH	2	146
260	19	0	PATCH	2	147

260	20	1	PATCH	4	148
260	21	1	PATCH	4	149
260	22	1	PATCH	4	150
260	23	1	PATCH	4	151
260	24	1	PATCH	4	152
260	25	0	PATCH	4	153
260	26	0	PATCH	4	154
260	27	0	PATCH	4	155
260	28	0	PATCH	4	156
260	29	0	PATCH	4	157
260	30	1	PATCH	4	158
260	31	1	PATCH	4	159
260	32	1	PATCH	4	160
260	33	1	PATCH	4	161
260	34	0	PATCH	4	162
260	35	0	PATCH	4	163
260	36	0	PATCH	4	164
260	37	0	PATCH	4	165
260	128	1	PATCH	1	0
260	129	0	PATCH	1	1
260	130	1	PATCH	1	2
260	131	0	PATCH	1	3
260	132	0	PATCH	1	4
260	133	0	PATCH	1	5
260	134	1	PATCH	2	6
260	135	1	PATCH	2	7
260	136	1	PATCH	2	8
260	137	1	PATCH	2	9
260	138	0	PATCH	2	10
260	139	0	PATCH	2	11
260	140	0	PATCH	2	12
260	141	0	PATCH	2	13
260	142	1	PATCH	2	14
260	143	1	PATCH	2	15
260	144	1	PATCH	2	16
260	145	0	PATCH	2	17

260	146	0	PATCH	2	18
260	147	0	PATCH	2	19
260	148	1	PATCH	4	20
260	149	1	PATCH	4	21
260	150	1	PATCH	4	22
260	151	1	PATCH	4	23
260	152	1	PATCH	4	24
260	153	0	PATCH	4	25
260	154	0	PATCH	4	26
260	155	0	PATCH	4	27
260	156	0	PATCH	4	28
260	157	0	PATCH	4	29
260	158	1	PATCH	4	30
260	159	1	PATCH	4	31
260	160	1	PATCH	4	32
260	161	1	PATCH	4	33
260	162	0	PATCH	4	34
260	163	0	PATCH	4	35
260	164	0	PATCH	4	36
260	165	0	PATCH	4	37

3 Simulation verification

The beams selected for simulation verification are highlighted in yellow in Table 2-1. Input power level used for comparison is listed in Table 3-1.

Table 3-1: Input power used in simulation validation

Mode/Band	Antenna	Input Power (dBm)	
		SISO	MIMO
5G NR n261 (28 GHz)	QTM#0 Patch	6	6
	QTM#1 Patch	6	6
5G NR n260 (39 GHz)	QTM#0 Patch	6	6
	QTM#1 Patch	6	6

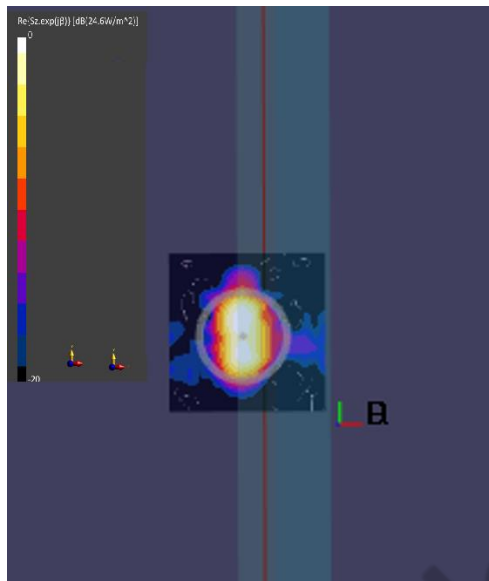
The simulation and measurement were performed at 2mm evaluation distance. The simulated and measured 4cm² averaged PD results are shown in Table 3-2.

Table 3-2: Simulated and measured 4cm² averaged PD comparison

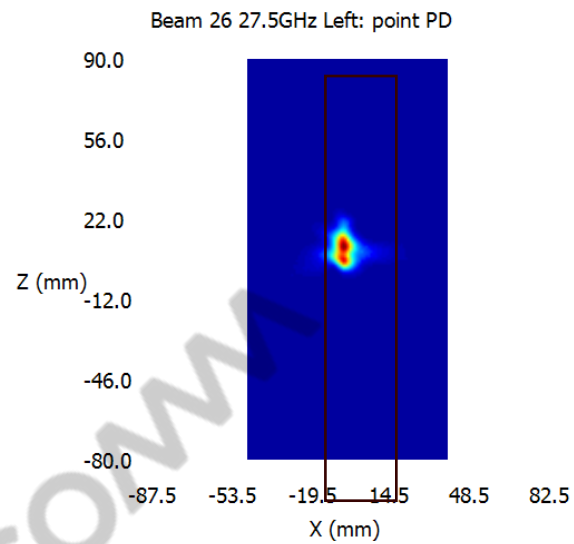
measured PD / simulated PD at 6dBm input power									
Band	Ant Type	Module	Ant Pol	beam ID	Surface	Channel	Measured	Simulated	Delta (dB) (Simulated-Measured)
n261	Patch	QTM0	AG0(V)	26	Leftface	Low	8. 57	18	3.2
					Frontface	Low	3. 8	7.71	3.1
					Backface	Low	5. 73	7.9	1.4
			AG1(H)	155	Leftface	Mid	8. 8	16.99	2.9
					Frontface	Mid	4. 06	7.51	2.7
					Backface	Mid	6. 14	7.16	0.7
		QTM1	AG0(V)	30	Rightface	Low	8. 42	17.08	3.1
					Frontface	Low	3. 13	8.36	4.1
					Backface	Low	3. 65	6.83	3.4
			AG1(H)	158	RightFace	Mid	8. 53	15.36	2.6
					Frontface	Mid	4. 16	6.97	2.2
					Backface	Mid	3.75	6.36	2.3
n260	Patch	QTM0	AG0(V)	29	Leftface	Mid	9.17	18.31	3.0
					Frontface	Mid	2.54	4.95	2.9
					Backface	Mid	2.65	5.67	3.3
			AG1(H)	157	Leftface	Mid	6.4	16.69	4.2
					Frontface	Mid	2.65	4.85	2.6
					Backface	Mid	4.96	5.15	0.2
		QTM1	AG0(V)	24	Rightface	Mid	8.63	15.46	2.5
					Frontface	Mid	2.79	5.55	3.0
					Backface	Mid	2. 64	5.61	3.3
			AG1(H)	161	Rightface	Mid	6. 47	14.52	3.5
					Frontface	Mid	2. 74	4.77	2.4
					Backface	Mid	3. 92	5.17	1.2

Below Figures show Measured and simulated PD distributions for selected beams. As can be seen, the Simulated point PD distribution and Measured point PD distribution have good correlation on all surfaces evaluated.

- N261 QTM0: Low channel, Beam26, Left face, Point PD

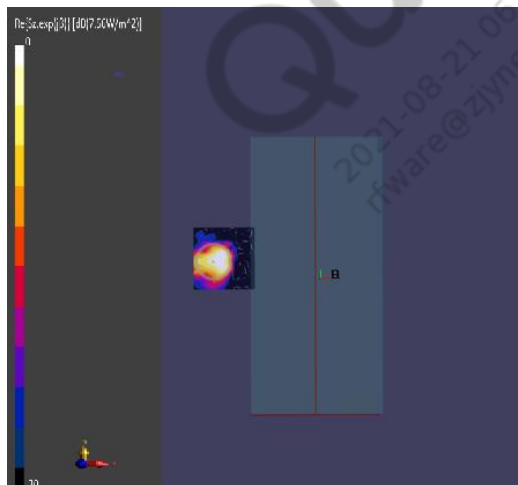


(a) Measurement

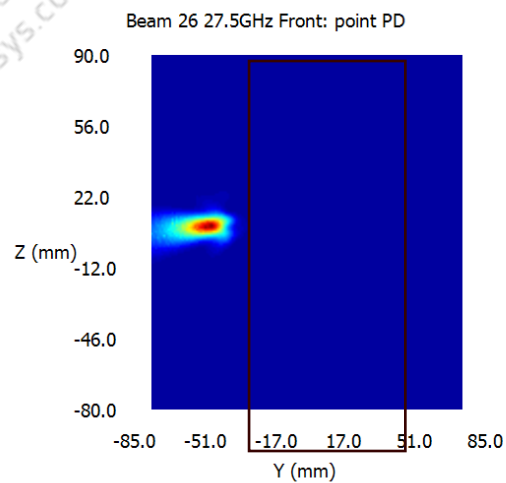


(b) Simulation

- N261 QTM0: Low channel, Beam26, Front face, Point PD

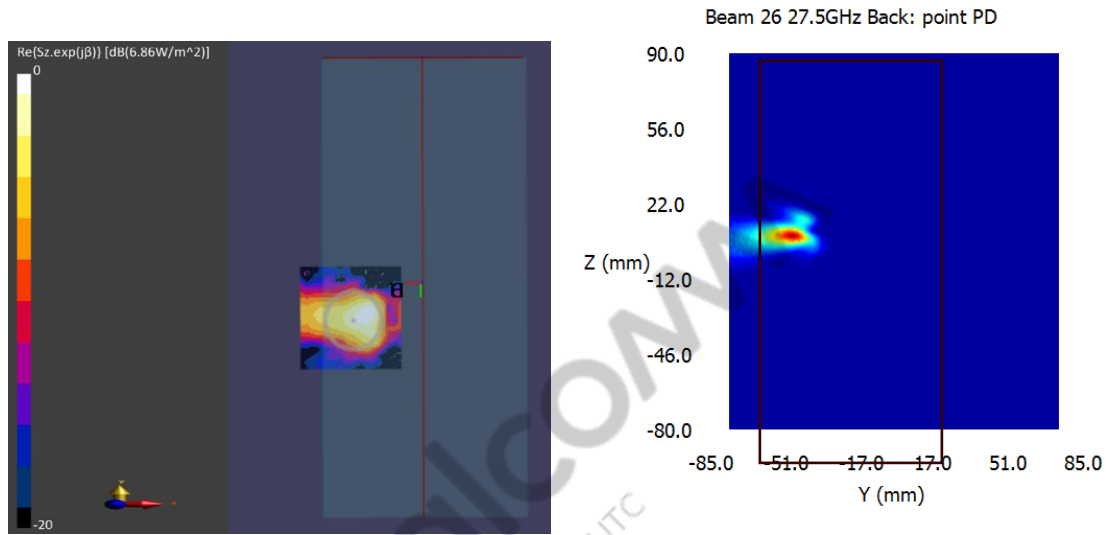


(a) Measurement



(b) Simulation

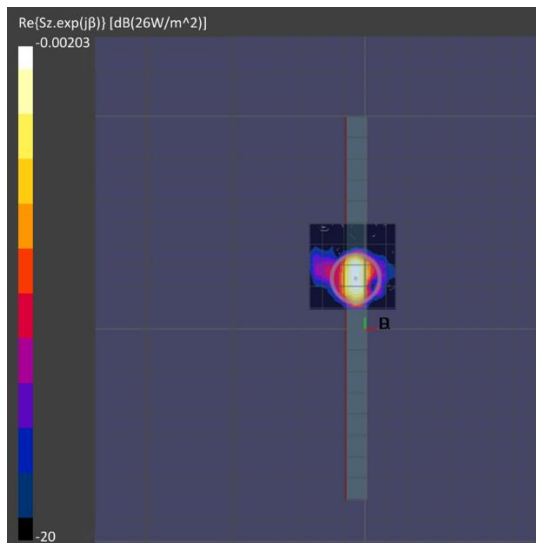
N261 QTM0: Low channel, Beam26, Back face, Point PD



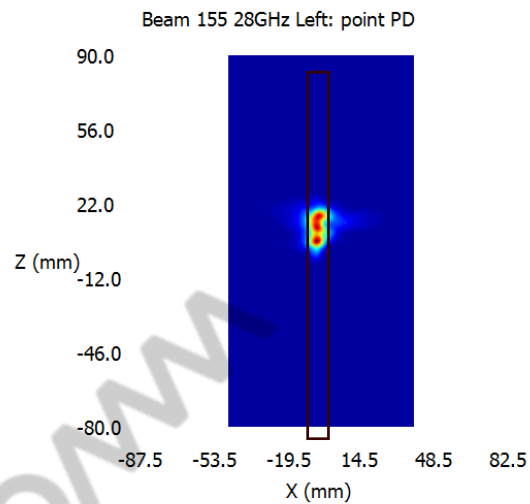
(a) Measurement

(b) Simulation

- N261 QTM0: Middle channel, Beam155, Left face, Point PD

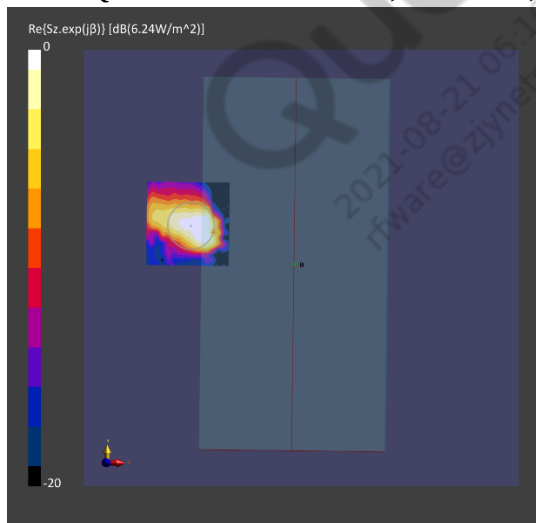


(a) Measurement

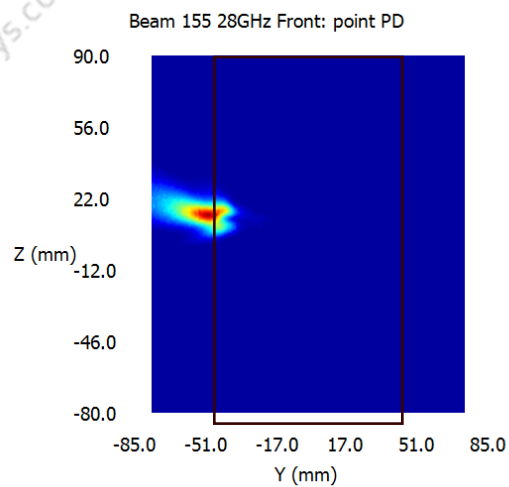


(b) Simulation

- N261 QTM0: Middle channel, Beam155, Front face, Point PD

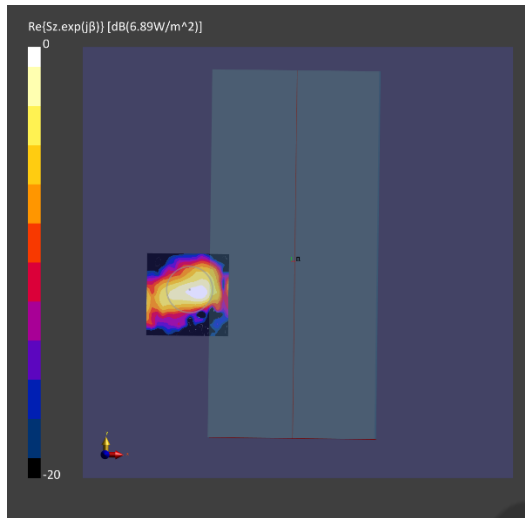


(a) Measurement

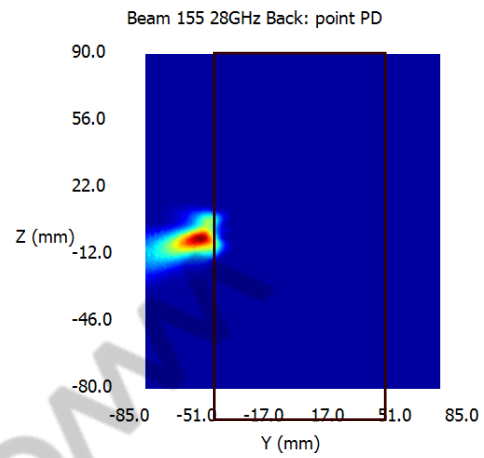


(b) Simulation

- N261 QTM0: Middle channel, Beam155, Back face, Point PD

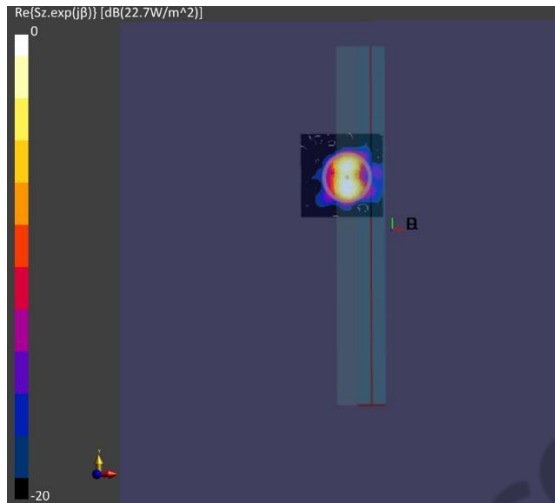


(a) Measurement

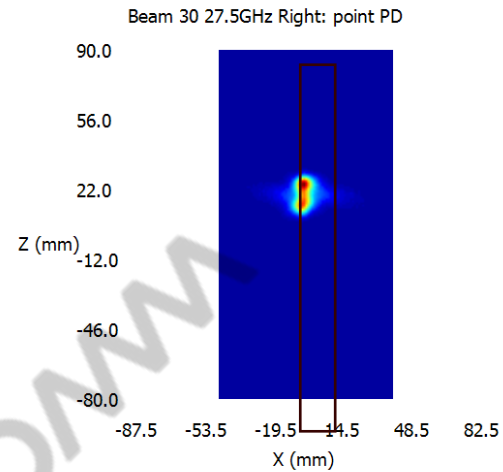


(b) Simulation

- N261 QTM1: Low channel, Beam30, right face, Point PD

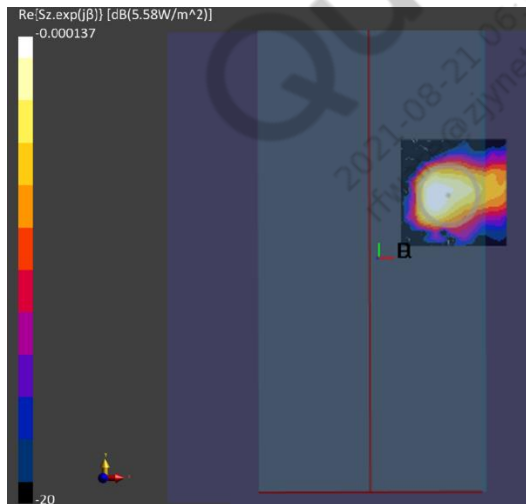


(a) Measurement

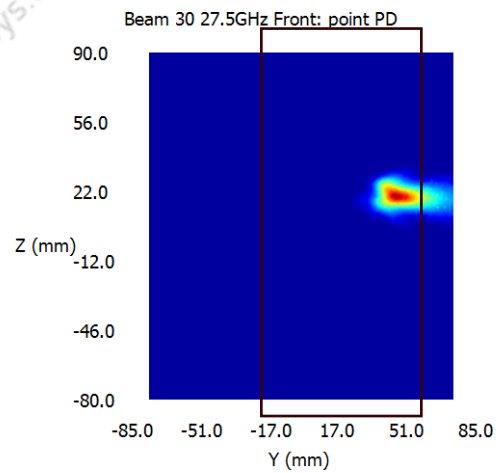


(b) Simulation

- N261 QTM1: Low channel, Beam30, Front face, Point PD

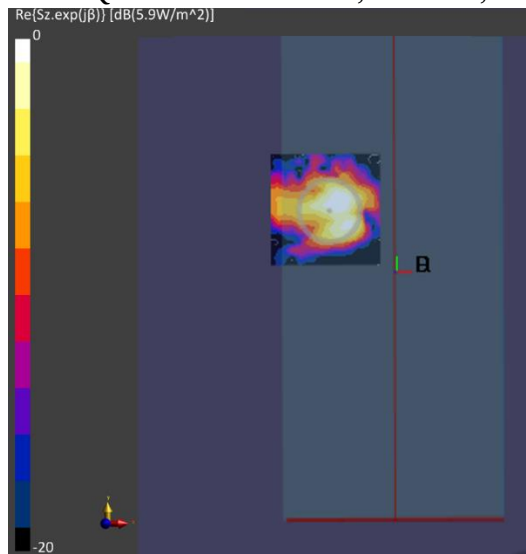


(a) Measurement

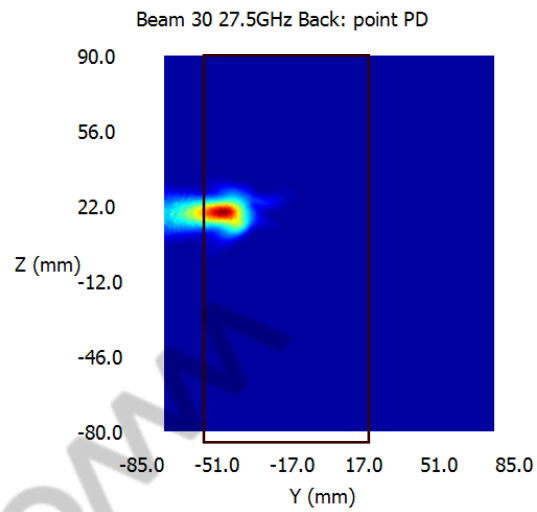


(b) Simulation

- N261 QTM1: Low channel, Beam30, Back face, Point PD

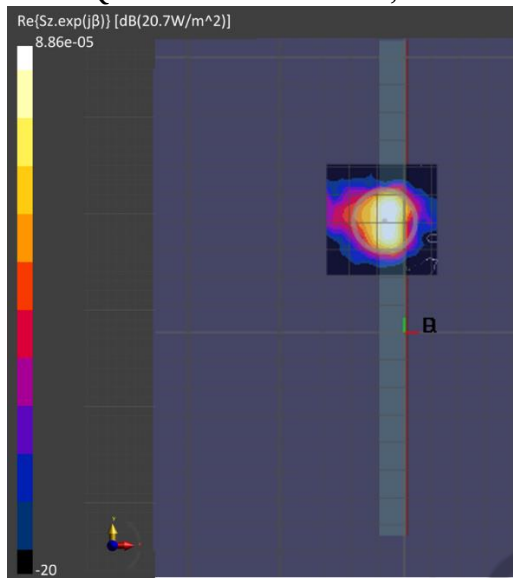


(a) Measurement

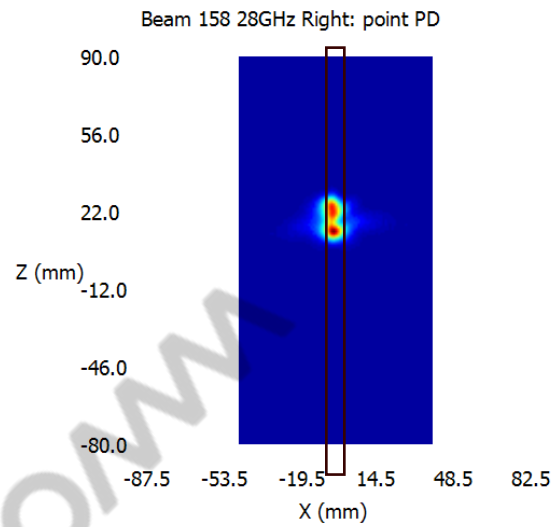


(b) Simulation

- N261 QTM1: Middle channel, Beam158, Right face, Point PD

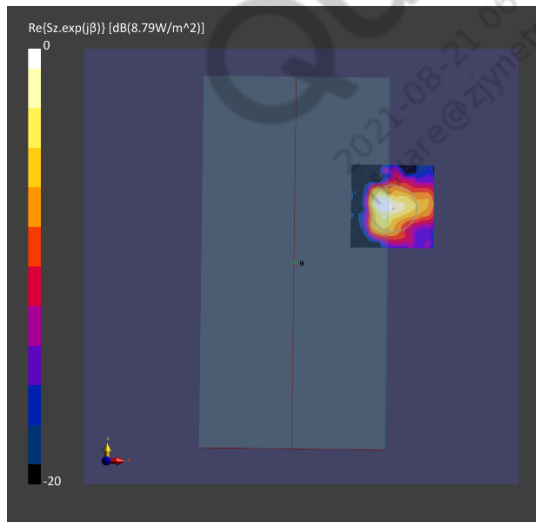


(a) Measurement

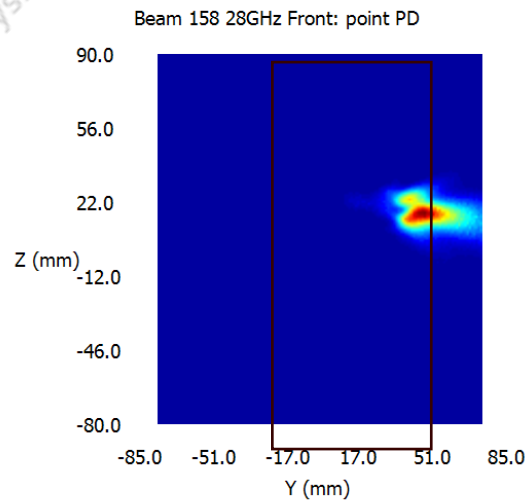


(b) Simulation

- N261 QTM1: Middle channel, Beam158, Front face, Point PD

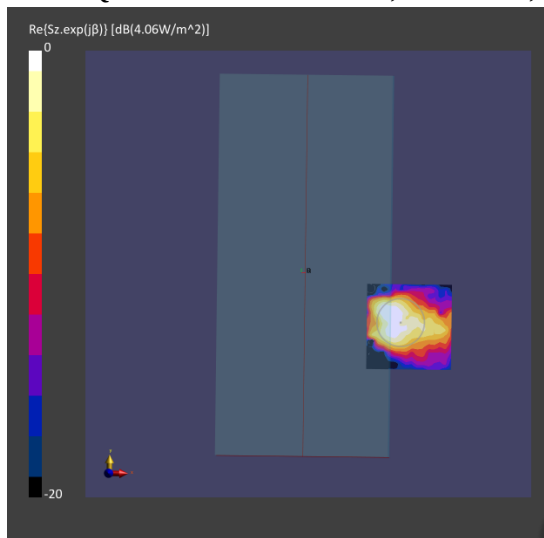


(a) Measurement

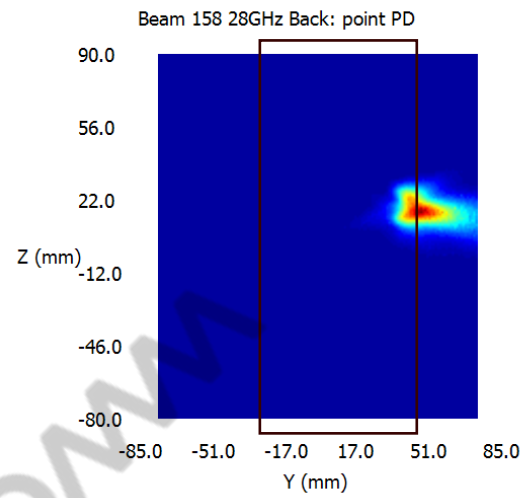


(b) Simulation

- N261 QTM1: Middle channel, Beam158, Back face, Point PD



(a) Measurement

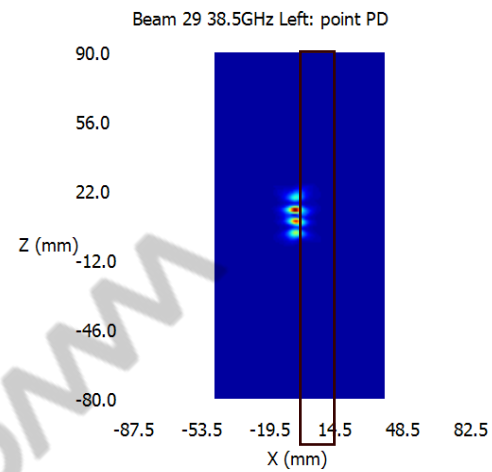


(b) Simulation

- N260 QTM0: Middle channel, Beam29, Left face, Point PD

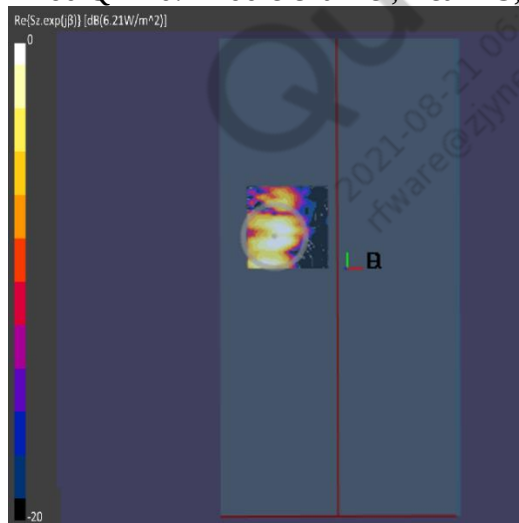


(a) Measurement

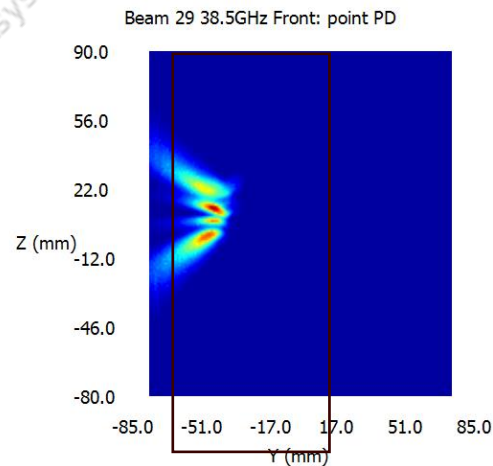


(b) Simulation

- N260 QTM0: Middle channel, Beam29, Front face, Point PD

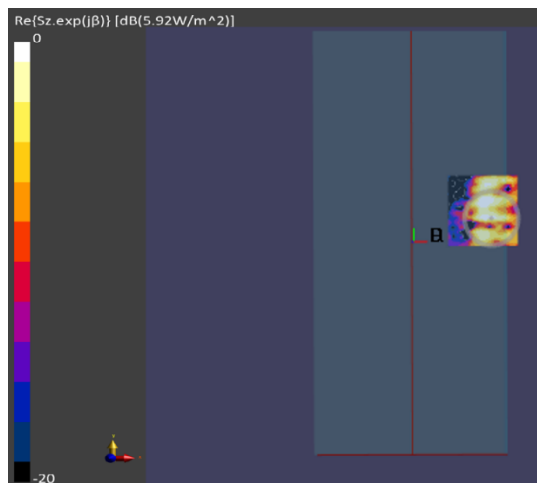


(a) Measurement

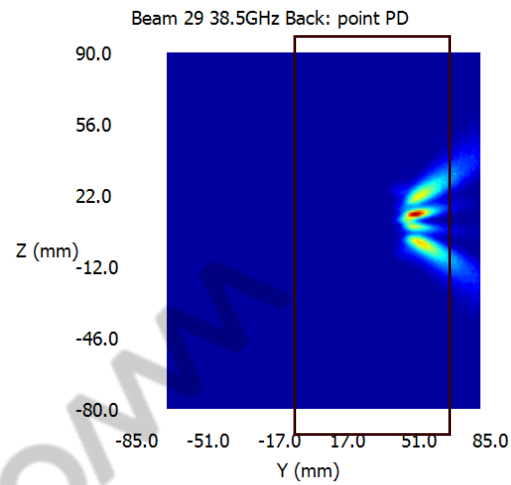


(b) Simulation

- N260 QTM0: Middle channel, Beam29, Back face, Point PD

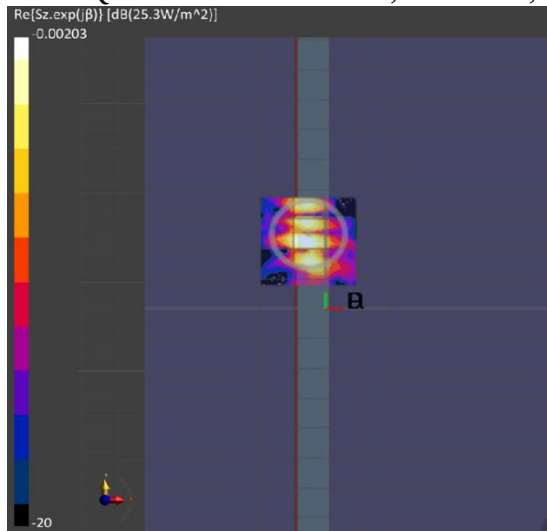


(a) Measurement

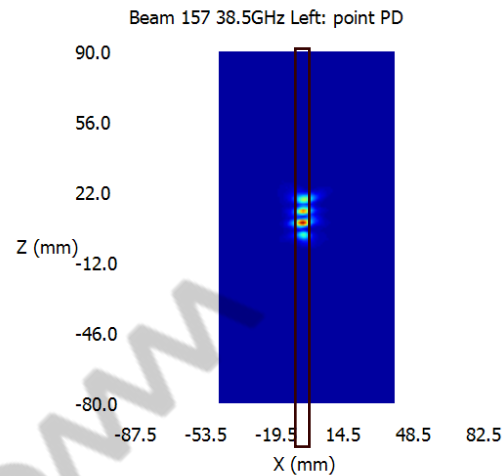


(b) Simulation

- N260 QTM0: Middle channel, Beam157, Left face, Point PD

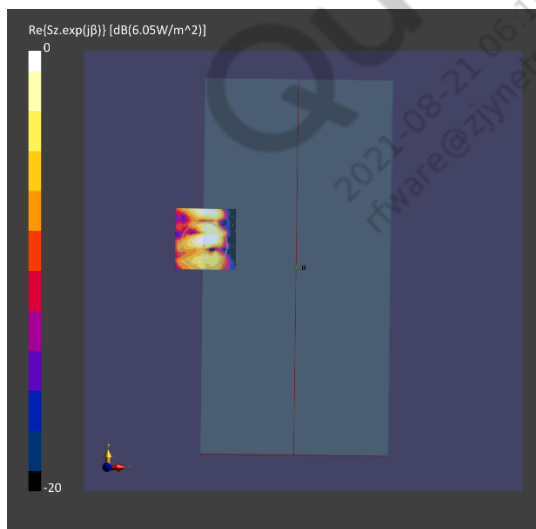


(a) Measurement

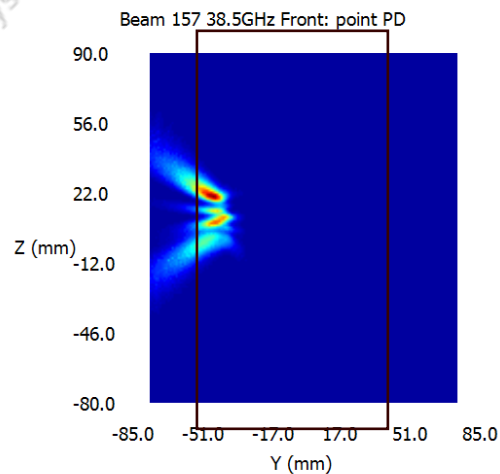


(b) Simulation

- N260 QTM0: Middle channel, Beam157, Front face, Point PD

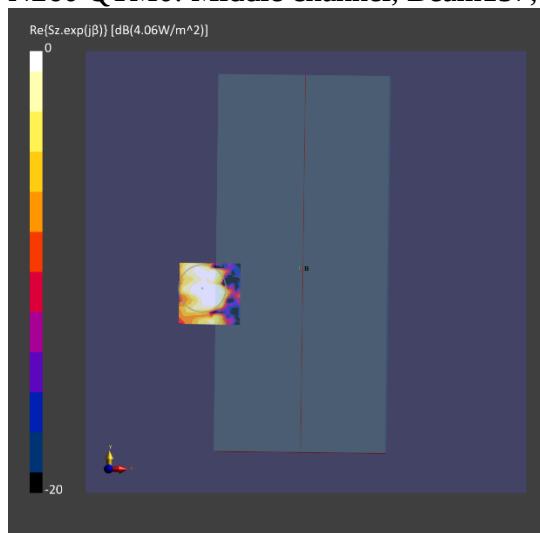


(a) Measurement

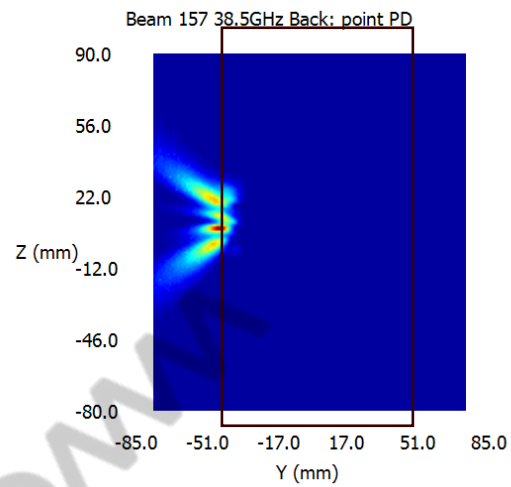


(b) Simulation

- N260 QTM0: Middle channel, Beam157, Back face, Point PD

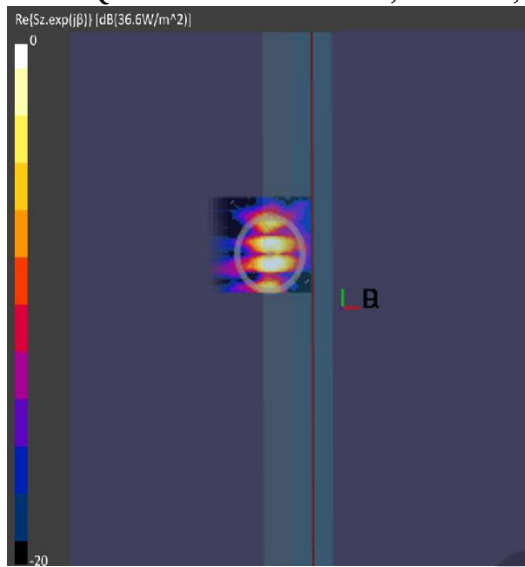


(a) Measurement

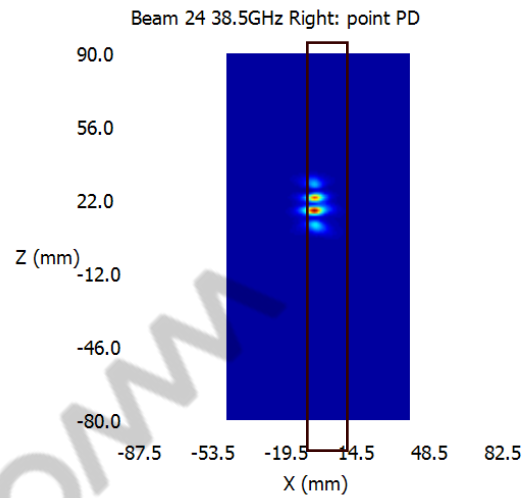


(b) Simulation

- N260 QTM1: Middle channel, Beam24, Right face, Point PD

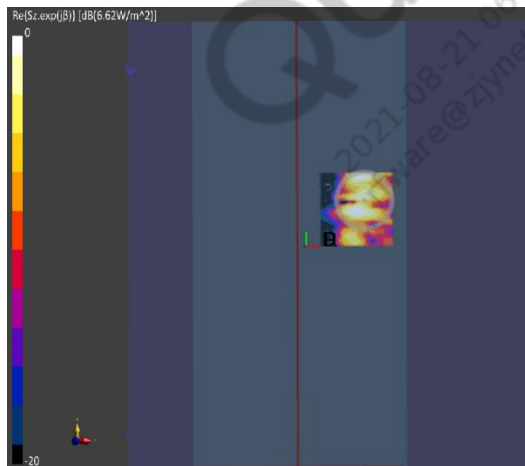


(a) Measurement

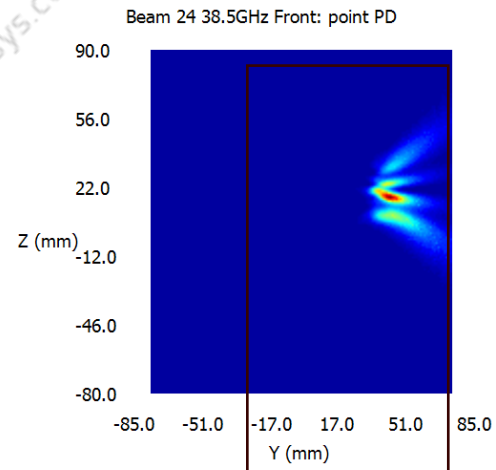


(b) Simulation

- N260 QTM1: Middle channel, Beam24, Front face, Point PD

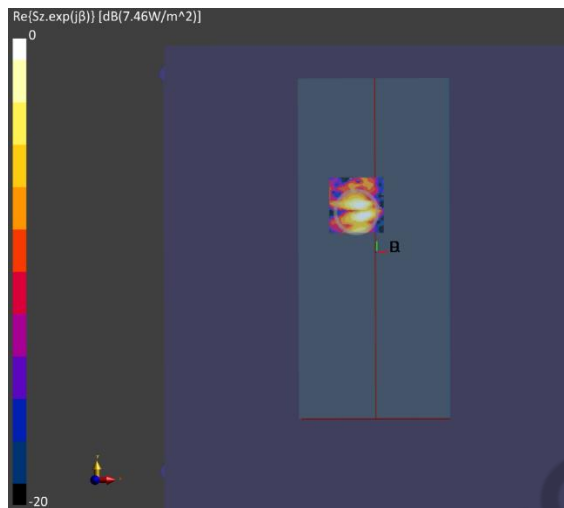


(a) Measurement

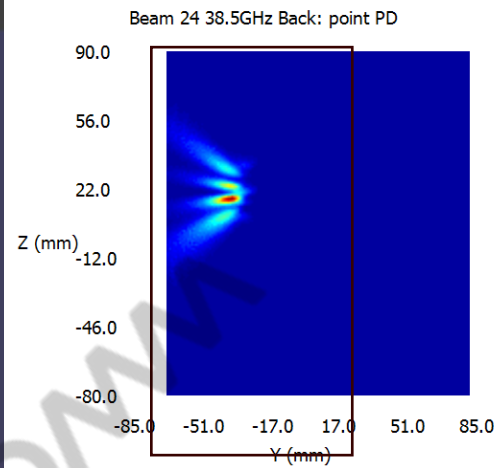


(b) Simulation

- N260 QTM1: Middle channel, Beam24, Back face, Point PD

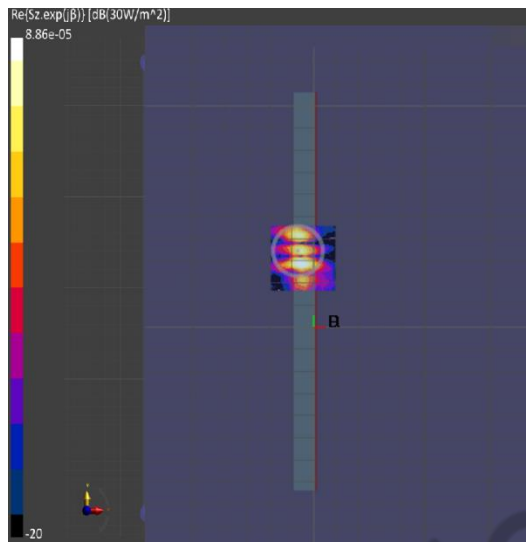


(a) Measurement

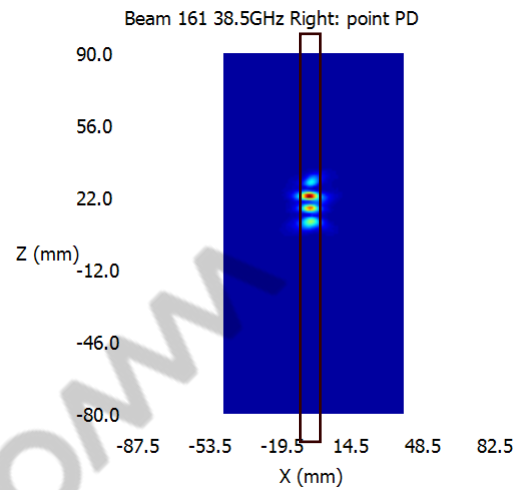


(b) Simulation

- N260 QTM1: Middle channel, Beam161, Right face, Point PD



(a) Measurement

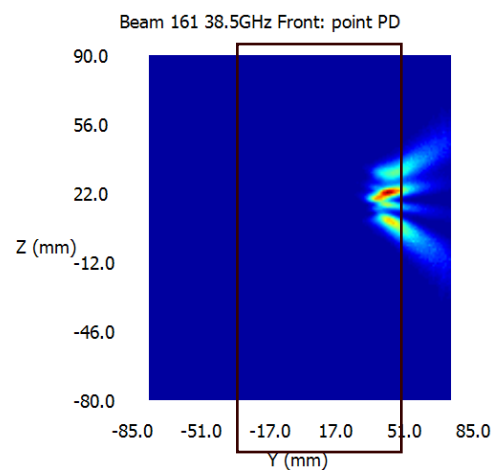


(b) Simulation

- N260 QTM1: Middle channel, Beam161, Front face, Point PD

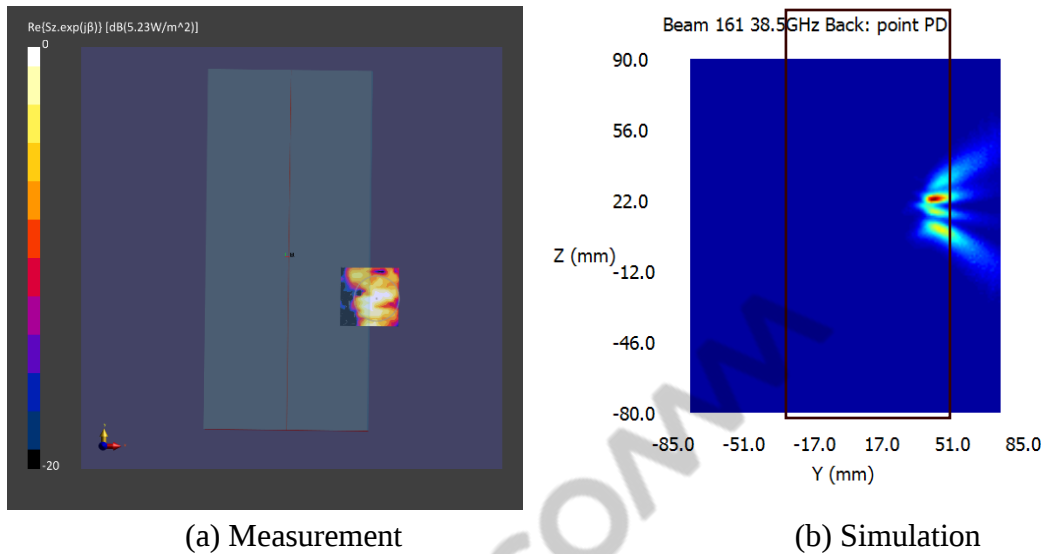


(a) Measurement



(b) Simulation

N260 QTM1: Middle channel, Beam161, Back face, Point PD



4 Simulation Result

The model is validated in Section 3, the PD exposure of EUT can be reliably assessed using the validated simulation approach. The PD simulation was performed at n261 and n260. The simulated PD results are reported in this section. The Ratio of PD exposure from front surface to the worst surface at 2mm, and the ratio of PD exposure from 2mm to 10mm evaluation distance for each beam are also reported for simultaneous transmission analysis in Part 1.

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 PD result for each MIMO beam represents the highest PD value after sweeping the relative phase between two SISO beams with a '5 degree' step interval from 0 degree to 360 degree.

4.1 PD for Low/Mid/High Channel at n261 and n260

Below Tables show the PD simulation evaluation of QTM0 at N261 and N260 for all surfaces as shown in Figure 1-3.

■ QTM0 N261 Low channel SISO

					Max Ratio																				Max Ratio					
					0.516	0.002	0.454	0.014	0.009											0.240	0.214	0.572	0.002	0.014	0.008					
n261M0 ch.(27.5GHz)					4cm2 PD(W/m2) at 2mm evaluation surfaces (@6dbm										4cm2 PD(W/m2) at 3mm evaluation surfaces (@6dbm										Ratio					
					relative phase worst PD for MIMO										relative phase worst PD for MIMO															
Band	Beam_ID	Ant module	Ant Type	Mumers of Feeds	Front	Back	Left	Right	Top	Bottom	Front / (worst surface)	Right (worst surface)	back (worst surface)	TOP (worst surface)	Bottom (worst surface)	Front	Back	Left	Right	Top	Bottom	Front / surface 10mm/2mm	back surface 10mm/2mm	left surface 10mm/2mm	Right surface 10mm/2mm	TOP surface 10mm/2mm	Bottom surface 10mm/2mm			
N261	1	0	Patch	1	1.27	1.45	3.77	0	0.02	0.01	0.337	0.000	0.385	0.005	0.003	0.46	0.57	1.73	0.000	0.020	0.010	0.12202	0.15119	0.45889	0.000	0.005	0.003			
N261	3	0	Patch	1	1.91	1.74	5.2	0	0.02	0.01	0.367	0.000	0.335	0.004	0.002	0.68	0.68	2.33	0.000	0.020	0.010	0.13077	0.13077	0.44808	0.000	0.004	0.002			
N261	4	0	Patch	1	1.72	1.76	4.88	0.01	0.01	0.02	0.352	0.002	0.361	0.002	0.004	0.67	0.65	2.09	0.000	0.010	0.020	0.1373	0.1332	0.42828	0.000	0.002	0.004			
N261	9	0	Patch	2	2.33	2.44	7.75	0.01	0.05	0.04	0.301	0.001	0.315	0.006	0.005	0.84	1.06	2.99	0.000	0.040	0.030	0.10839	0.13677	0.38581	0.000	0.005	0.004			
N261	10	0	Patch	2	2.72	3.57	8.44	0.01	0.03	0.03	0.322	0.001	0.423	0.004	0.004	1.11	1.59	4.15	0.010	0.020	0.020	0.13152	0.18839	0.49171	0.001	0.002	0.002			
N261	11	0	Patch	2	4.28	4.03	10.13	0.01	0.02	0.02	0.423	0.001	0.398	0.002	0.002	1.87	1.73	5.47	0.010	0.020	0.020	0.1846	0.17078	0.53998	0.001	0.002	0.002			
N261	12	0	Patch	2	4.06	3.26	9.37	0.01	0.05	0.01	0.433	0.001	0.348	0.005	0.001	1.8	1.38	4.72	0.010	0.050	0.010	0.1921	0.14728	0.50374	0.001	0.005	0.001			
N261	16	0	Patch	2	3.71	3.52	9.74	0.01	0.04	0.03	0.381	0.001	0.361	0.004	0.003	1.63	1.49	4.75	0.010	0.040	0.020	0.16735	0.15298	0.48768	0.001	0.004	0.002			
N261	17	0	Patch	2	4.48	4.44	10.63	0.01	0.01	0.01	0.421	0.001	0.418	0.001	0.001	1.95	1.9	5.91	0.010	0.010	0.010	0.18344	0.17874	0.55597	0.001	0.001	0.001			
N261	18	0	Patch	2	4.05	3.7	9.54	0.01	0.04	0.01	0.425	0.001	0.388	0.004	0.001	1.77	1.59	5.09	0.010	0.040	0.010	0.18553	0.16667	0.53354	0.001	0.004	0.001			
N261	24	0	Patch	2	4.5	4.19	11.98	0.02	0.09	0.11	0.376	0.002	0.350	0.008	0.009	2.08	1.68	5.28	0.020	0.090	0.090	0.17362	0.14023	0.54073	0.002	0.008	0.008			
N261	25	0	Patch	4	6.35	7.27	16.71	0.02	0.04	0.04	0.380	0.001	0.435	0.002	0.002	3.04	3.31	8.81	0.020	0.040	0.030	0.18193	0.19808	0.52723	0.001	0.002	0.002			
N261	26	0	Patch	4	7.71	7.9	18	0.02	0.03	0.01	0.428	0.001	0.439	0.002	0.001	3.98	3.68	10.26	0.020	0.020	0.010	0.22111	0.20444	0.57	0.001	0.001	0.001			
N261	27	0	Patch	4	7.33	7.75	17.77	0.02	0.03	0.01	0.412	0.001	0.436	0.002	0.001	3.73	3.79	10.02	0.010	0.030	0.010	0.2099	0.21328	0.56387	0.001	0.002	0.001			
N261	28	0	Patch	4	7.25	5.34	15.74	0.02	0.1	0.04	0.461	0.001	0.339	0.006	0.003	3.53	2.61	7.69	0.010	0.100	0.040	0.22427	0.16582	0.48856	0.001	0.006	0.003			
N261	33	0	Patch	4	5.6	5.72	14.42	0.03	0.06	0.06	0.388	0.002	0.397	0.004	0.004	2.63	2.53	7.27	0.020	0.060	0.050	0.18239	0.17545	0.50416	0.001	0.004	0.003			
N261	34	0	Patch	4	7.06	8.12	17.89	0.03	0.04	0.03	0.395	0.002	0.454	0.002	0.002	3.5	3.82	9.78	0.020	0.030	0.030	0.19564	0.21353	0.54667	0.001	0.002	0.002			
N261	35	0	Patch	4	7.59	7.73	17.6	0.02	0.01	0.01	0.431	0.001	0.439	0.001	0.001	3.89	3.7	10.07	0.010	0.010	0.010	0.22102	0.21023	0.57216	0.001	0.001	0.001			
N261	36	0	Patch	4	7.48	6.8	17.36	0.02	0.03	0.02	0.431	0.001	0.392	0.002	0.001	3.74	3.32	9.45	0.010	0.030	0.020	0.21544	0.19124	0.54435	0.001	0.002	0.001			
N261	129	0	Patch	1	1.81	1.17	4.18	0.01	0.05	0.01	0.433	0.002	0.280	0.012	0.002	0.69	0.43	1.61	0.010	0.050	0.010	0.16507	0.10287	0.38517	0.002	0.012	0.002			
N261	131	0	Patch	1	1.77	1.63	4.66	0	0.02	0.01	0.380	0.000	0.350	0.004	0.002	0.68	0.58	2.18	0.000	0.020	0.010	0.14592	0.12446	0.46781	0.000	0.004	0.002			
N261	132	0	Patch	2	1.79	1.51	4.63	0	0.01	0.01	0.387	0.000	0.326	0.002	0.002	0.67	0.58	2.08	0.000	0.010	0.010	0.14471	0.12527	0.44924	0.000	0.002	0.002			
N261	137	0	Patch	2	2.99	1.87	7.31	0.01	0.1	0.04	0.409	0.001	0.256	0.014	0.005	1.25	0.73	2.75	0.010	0.100	0.040	0.171	0.09986	0.3762	0.001	0.014	0.005			
N261	138	0	Patch	2	4.3	2.49	8.34	0.02	0.04	0.02	0.516	0.002	0.299	0.005	0.002	1.97	1	4.33	0.010	0.040	0.020	0.23621	0.1199	0.51918	0.001	0.005	0.002			
N261	139	0	Patch	2	3.96	3.98	9.71	0.01	0.02	0.02	0.408	0.001	0.410	0.002	0.002	1.78	1.72	5.36	0.010	0.020	0.020	0.18332	0.17714	0.55201	0.001	0.002	0.002			
N261	140	0	Patch	2	2.35	2.33	7.57	0.01	0.03	0.03	0.310	0.001	0.308	0.004	0.004	0.97	0.98	3.16	0.000	0.030	0.030	0.12814	0.12946	0.41744	0.000	0.004	0.004			
N261	144	0	Patch	2	3.91	3.39	9.09	0.01	0.02	0.02	0.430	0.001	0.373	0.002	0.002	1.72	1.38	4.76	0.000	0.020	0.020	0.18922	0.15182	0.52365	0.000	0.002	0.002			
N261	145	0	Patch	2	4.72	3.07	9.34	0.02	0.01	0.01	0.505	0.002	0.329	0.001	0.001	2.19	1.24	5.17	0.010	0.010	0.010	0.23448	0.13276	0.55353	0.001	0.001	0.001			
N261	146	0	Patch	2	3.71	3.4	9.4	0.01	0.07	0.02	0.395	0.001	0.362	0.007	0.002	1.63	1.48	4.41	0.010	0.070	0.020	0.1734	0.15745	0.46915	0.001	0.007	0.002			
N261	152	0	Patch	2	6.72	4.08	13.02	0.02	0.07	0.08	0.516	0.002	0.313	0.005	0.006	2.93	1.72	6.14	0.010	0.070	0.070	0.22504	0.1321	0.47158	0.001	0.005	0.005			
N261	153	0	Patch	4	7.55	5.03	15.28	0.02	0.05	0.03	0.494	0.001	0.329	0.003	0.002	3.67	2.19	8.01	0.020	0.040	0.030	0.24018	0.14332	0.52421	0.001	0.003	0.002			
N261	154	0	Patch	4	8.05	6.78	17.28	0.03	0.01	0.01	0.466	0.002	0.392	0.001	0.001	4.05	3.19	9.79	0.020	0.010	0.010	0.23438	0.18461	0.56655	0.001	0.001	0.001			
N261	155	0	Patch	4	8	7.44	17.92	0.03	0.04	0.01	0.446	0.002	0.415	0.002	0.001	4.02	3.52	10.21	0.030	0.040	0.010	0.22433	0.19643	0.56975	0.002	0.002	0.001			
N261	156	0	Patch	4	5.63	5.4	13.99	0.02	0.08	0.06	0.402	0.001	0.386	0.006	0.004	2.72	2.46	7.26	0.020	0.080	0.050	0.19442	0.17584	0.51894	0.001	0.006	0.004			
N261	161	0	Patch	4	7.21	4.59	14.15	0.02	0.05	0.06	0.510	0.001	0.324	0.004	0.004	3.27	1.96	7.02	0.010	0.050	0.050	0.2311	0.13852	0.49611	0.001	0.004	0.004			
N261	162	0	Patch	4	7.73	5.84	16.43	0.03	0.04	0.02	0.470	0.002	0.355	0.002	0.001	3.87	2.66	8.99	0.020	0.040	0.020	0.23554	0.1619	0.54717	0.001	0.002	0.001			
N261	163	0	Patch	4	8.19	7.01	17.49	0.04	0.02	0	0.468	0.002	0.401	0.001	0.000	4.14	3.3	9.98	0.030	0.020	0.000	0.23671	0.18868	0.57061	0.002	0.001	0.000			
N261	164	0	Patch	4	6.75	7.14	16.37	0.02	0.05	0.03	0.412	0.001	0.436	0.003	0.002	3.25	3.3	9.3	0.020	0.050	0.030	0.19853	0.20159	0.56811	0.001	0.003	0.002			

■ QTM0 N261 Low channel MIMO

												Max Ratio															Max Ratio					
												0.499	0.002	0.462	0.016	0.009											0.249	0.212	0.625	0.002	0.015	0.008
N261	129	1	0	Patch	2	3.78	3.32	8.77	0.02	0.12	0.02	0.431	0.002	0.379	0.014	0.002	1.390	1.350	3.680	0.010	0.110	0.020	0.158	0.154	0.420	0.001	0.013	0.002				
N261	131	3	0	Patch	2	4.66	4.4	10.49	0.01	0.05	0.05	0.444	0.001	0.419	0.005	0.005	1.750	1.720	4.720	0.010	0.050	0.040	0.167	0.164	0.450	0.001	0.005	0.004				
N261	132	4	0	Patch	2	4.55	4.32	10.49	0.02	0.04	0.05	0.451	0.002	0.428	0.004	0.005	1.780	1.670	4.340	0.010	0.040	0.050	0.176	0.166	0.430	0.001	0.004	0.005				
N261	137	9	0	Patch	4	6.49	5.72	16.61	0.03	0.26	0.12	0.391	0.002	0.344	0.016	0.007	2.710	2.610	6.320	0.020	0.250	0.110	0.163	0.157	0.380	0.001	0.015	0.007				
N261	138	10	0	Patch	4	8.4	8.15	17.65	0.04	0.11	0.07	0.476	0.002	0.462	0.006	0.004	3.830	3.740	8.850	0.040	0.110	0.060	0.217	0.212	0.501	0.002	0.006	0.003				
N261	139	11	0	Patch	4	9.07	8.53	20.7	0.02	0.05	0.06	0.438	0.001	0.412	0.002	0.003	4.030	3.580	12.320	0.010	0.050	0.050	0.195	0.173	0.595	0.000	0.002	0.002				
N261	140	12	0	Patch	4	7.19	5.61	15.78	0.02	0.11	0.05	0.456	0.001	0.356	0.007	0.003	3.120	2.420	8.470	0.010	0.100	0.050	0.198	0.153	0.537	0.001	0.006	0.003				
N261	144	16	0	Patch	4	8.45	7.11	19.73	0.02	0.09	0.08	0.428	0.001	0.360	0.005	0.004	3.650	2.940	10.230	0.020	0.090	0.070	0.185	0.149	0.518	0.001	0.005	0.004				
N261	145	17	0	Patch	4	10.04	8.22	20.14	0.03	0.04	0.03	0.499	0.001	0.408	0.002	0.001	4.760	3.350	11.760	0.020	0.040	0.020	0.236	0.166	0.584	0.001	0.002	0.001				
N261	146	18	0	Patch	4	9.65	9.02	20.45	0.03	0.16	0.04	0.472	0.001	0.441	0.008	0.002	4.240	4.010	9.850	0.020	0.150	0.040	0.207	0.196	0.482	0.001	0.007	0.002				
N261	152	24	0	Patch	8	12.96	11.19	31.63	0.06	0.22	0.29	0.410	0.002	0.354	0.007	0.009	5.690	4.690	14.430	0.060	0.210	0.250	0.180	0.148	0.456	0.002	0.007	0.008				
N261	153	25	0	Patch	8	15.03	13.05	32.97	0.06	0.16	0.09	0.456	0.002	0.396	0.005	0.003	7.450	6.020	18.370	0.050	0.150	0.080	0.226	0.183	0.557	0.002	0.005	0.002				
N261	154	26	0	Patch	8	18.1	15.79	37.59	0.06	0.06	0.04	0.482	0.002	0.420	0.002	0.001	9.300	7.350	23.270	0.050	0.050	0.030	0.247	0.196	0.619	0.001	0.001	0.001				
N261	155	27	0	Patch	8	18.11	16.41	39.05	0.08	0.1	0.03	0.464	0.002	0.420	0.003	0.001	9.350	7.990	24.050	0.070	0.100	0.030	0.239	0.205	0.616	0.002	0.003	0.001				
N261	156	28	0	Patch	8	14.9	11.83	32.56	0.05	0.2	0.11	0.458	0.002	0.363	0.006	0.003	7.140	5.640	15.510	0.040	0.190	0.110	0.219	0.173	0.476	0.001	0.006	0.003				
N261	161	33	0	Patch	8	13.35	12.24	32.07	0.06	0.17	0.16	0.416	0.002	0.382	0.005	0.005	6.240	5.360	15.810	0.050	0.160	0.130	0.195	0.167	0.493	0.002	0.005	0.004				
N261	162	34	0	Patch	8	17.18	15.04	37.3	0.06	0.14	0.07	0.461	0.002	0.403	0.004	0.002	8.790	6.970	22.050	0.050	0.130	0.070	0.236	0.187	0.591	0.001	0.003	0.002				
N261	163	35	0	Patch	8	18.27	15.52	37.41	0.06	0.05	0.02	0.488	0.002	0.415	0.001	0.001	9.300	7.340	23.370	0.050	0.050	0.010	0.249	0.196	0.625	0.001	0.001	0.000				
N261	164	36	0	Patch	8	15.45	14.97	35.18	0.06	0.14	0.06	0.439	0.002	0.426	0.004	0.002	7.960	7.260	20.370	0.050	0.130	0.060	0.226	0.206	0.589	0.001	0.004	0.002				

■ QTM1 N261 Low channel SISO

					Max Ratio															Max Ratio							
					0.538	0.005	0.511	0.023	0.007											0.255	0.222	0.003	0.573	0.022	0.007		
n261low ch. (27.5GHz)					4cm2 PD(Win2) at 2mm evaluation surfaces @6dBm					4cm2 PD(Win2) at 2mm evaluation surfaces @6dBm										Ratio							
					relative phase worst PD for MIMO					Ratio					4cm2 PD(Win2) at 2mm evaluation surfaces for MIMO					Ratio							
Band	Beam_ID	Ant module	Ant Type	Number of Feeds	Front	Back	Left	Right	Top	Bottom	Front / (worst surface)	left (worst surface)	back (worst surface)	TOP (worst surface)	Bottom (worst surface)	Front	Back	Left	Right	Top	Bottom	Front / surface 2mm/2mm	back surface 2mm/2mm	left surface 2mm/2mm	Right surface 2mm/2mm	TOP surface 2mm/2mm	Bottom surface 2mm/2mm
N261	0	1	Patch	1	1.74	1.6	0.01	4.31	0.02	0.01	0.404	0.002	0.371	0.005	0.002	0.620	0.600	0.010	1.900	0.020	0.010	0.14385	0.13921	0.00232	0.44084	0.00464	0.00224
N261	2	1	Patch	1	1.83	1.54	0	4.47	0.02	0.01	0.409	0.000	0.345	0.004	0.002	0.680	0.570	0.000	2.010	0.020	0.010	0.15213	0.12752	0	0.44966	0.00447	0.00224
N261	5	1	Patch	2	2.8	1.85	0.03	6.64	0.07	0.02	0.422	0.005	0.279	0.011	0.003	1.270	0.700	0.020	2.860	0.070	0.020	0.19127	0.10542	0.00301	0.43072	0.01054	0.00301
N261	6	1	Patch	2	4.27	2.63	0.02	8.07	0.02	0.01	0.529	0.002	0.326	0.002	0.001	1.970	1.060	0.020	4.490	0.020	0.010	0.24411	0.13135	0.00248	0.55638	0.00248	0.00124
N261	7	1	Patch	2	2.41	3.84	0.03	7.52	0.06	0.01	0.320	0.004	0.511	0.008	0.001	1.050	1.620	0.020	3.710	0.060	0.010	0.13963	0.21543	0.00266	0.49335	0.00798	0.00133
N261	8	1	Patch	2	1.95	2.74	0.02	6.6	0.08	0.02	0.295	0.003	0.415	0.012	0.003	0.690	1.070	0.020	2.430	0.080	0.020	0.10455	0.16212	0.00303	0.36818	0.01212	0.00303
N261	13	1	Patch	2	3.9	3.09	0.01	8.2	0.02	0.02	0.476	0.001	0.377	0.002	0.002	1.720	1.310	0.010	4.340	0.020	0.010	0.20976	0.15976	0.00122	0.52927	0.00244	0.00122
N261	14	1	Patch	2	4.37	3.84	0.01	9.47	0.02	0.01	0.461	0.001	0.405	0.002	0.001	1.950	1.640	0.010	5.170	0.020	0.010	0.20591	0.17318	0.00106	0.54593	0.00211	0.00106
N261	15	1	Patch	2	2.96	2.81	0.02	7.62	0.07	0.02	0.388	0.003	0.369	0.009	0.003	1.320	1.150	0.010	3.450	0.060	0.020	0.17323	0.15092	0.00131	0.45276	0.00787	0.00262
N261	19	1	Patch	4	6.81	4.71	0.03	13.72	0.07	0.04	0.496	0.002	0.343	0.005	0.003	3.210	2.230	0.020	7.080	0.060	0.030	0.23397	0.16254	0.00146	0.51603	0.00437	0.00219
N261	20	1	Patch	4	8.51	6.34	0.02	16.9	0.03	0.01	0.504	0.001	0.375	0.002	0.001	4.180	3.100	0.020	9.530	0.030	0.010	0.24734	0.18343	0.00118	0.56391	0.00178	0.00059
N261	21	1	Patch	4	7.82	7.34	0.03	16.89	0.02	0.01	0.463	0.002	0.435	0.001	0.001	4.030	3.560	0.020	9.500	0.020	0.010	0.2386	0.21078	0.00118	0.56246	0.00118	0.00059
N261	22	1	Patch	4	6.08	7.67	0.02	15.51	0.08	0.01	0.392	0.001	0.495	0.005	0.001	2.960	3.420	0.020	8.210	0.070	0.010	0.19084	0.2205	0.00129	0.52934	0.00451	0.00064
N261	23	1	Patch	4	3.63	4.74	0.04	10.25	0.24	0.07	0.354	0.004	0.462	0.023	0.007	1.730	1.870	0.030	4.790	0.230	0.070	0.16878	0.18244	0.00293	0.46732	0.00244	0.00683
N261	29	1	Patch	4	7.65	5.44	0.02	15.51	0.04	0.03	0.493	0.001	0.351	0.003	0.002	3.650	2.630	0.020	8.240	0.040	0.020	0.23533	0.16957	0.00125	0.53127	0.00258	0.00129
N261	30	1	Patch	4	8.36	6.83	0.03	17.08	0.01	0.01	0.489	0.002	0.400	0.001	0.001	4.230	3.340	0.020	9.690	0.010	0.010	0.24766	0.19555	0.00117	0.56733	0.00059	0.00059
N261	31	1	Patch	4	6.88	7.82	0.03	16.42	0.04	0.01	0.419	0.002	0.476	0.002	0.001	3.460	3.650	0.020	8.990	0.030	0.010	0.21072	0.22229	0.00122	0.5475	0.00183	0.00061
N261	32	1	Patch	4	4.93	6.49	0.03	13.44	0.18	0.04	0.367	0.002	0.483	0.013	0.003	2.370	2.680	0.030	6.700	0.160	0.040	0.17634	0.1994	0.00223	0.49851	0.0119	0.00298
N261	128	1	Patch	4	1.77	1.45	0.01	4.26	0.02	0.01	0.415	0.002	0.340	0.005	0.002	0.670	0.510	0.010	1.990	0.020	0.010	0.15728	0.11972	0.00235	0.46714	0.00469	0.00235
N261	130	1	Patch	1	1.7	1.35	0.01	4.02	0.03	0.01	0.423	0.002	0.336	0.007	0.002	0.610	0.490	0.010	1.730	0.030	0.010	0.15174	0.12189	0.00249	0.43035	0.00746	0.00249
N261	133	1	Patch	1	2.44	2.22	0.02	6.84	0.06	0.02	0.357	0.003	0.325	0.009	0.003	1.070	0.910	0.010	2.860	0.060	0.020	0.15643	0.13304	0.00146	0.41813	0.00377	0.00292
N261	134	1	Patch	2	3.92	3.37	0.02	8.63	0.02	0.01	0.454	0.002	0.390	0.002	0.001	1.800	1.380	0.010	4.650	0.020	0.010	0.20857	0.15991	0.00116	0.53882	0.00232	0.00116
N261	135	1	Patch	2	4.25	3.4	0.01	8.92	0.03	0.01	0.476	0.001	0.381	0.003	0.001	1.850	1.490	0.010	4.840	0.020	0.010	0.2074	0.16031	0.00112	0.5426	0.00224	0.00112
N261	136	1	Patch	2	3.21	1.8	0.02	6.73	0.05	0.02	0.477	0.003	0.267	0.007	0.003	1.430	0.690	0.010	3.070	0.050	0.020	0.21248	0.10253	0.00149	0.45617	0.00743	0.00297
N261	141	1	Patch	2	3.04	2.76	0.02	7.55	0.05	0.02	0.403	0.003	0.366	0.007	0.003	1.380	1.150	0.010	3.640	0.040	0.020	0.18278	0.15232	0.00132	0.48212	0.0053	0.00265
N261	142	1	Patch	2	4.73	3.12	0.02	8.8	0.01	0	0.538	0.002	0.355	0.001	0.000	2.130	1.270	0.010	5.040	0.010	0.000	0.24205	0.14432	0.00114	0.57273	0.00114	0
N261	143	1	Patch	2	3.67	2.89	0.02	8.19	0.06	0.02	0.448	0.002	0.353	0.007	0.002	1.540	1.250	0.010	4.040	0.050	0.010	0.18803	0.15263	0.00122	0.49328	0.00611	0.00122
N261	147	1	Patch	2	4.29	4.85	0.04	11.25	0.11	0.07	0.381	0.004	0.431	0.010	0.006	2.090	2.010	0.030	5.390	0.100	0.070	0.18578	0.17867	0.00267	0.47911	0.00889	0.00622
N261	148	1	Patch	4	6.26	6.94	0.03	15.25	0.01	0.02	0.410	0.002	0.455	0.001	0.001	2.960	3.150	0.030	8.220	0.010	0.020	0.1941	0.20656	0.00197	0.53902	0.00066	0.00131
N261	149	1	Patch	4	7.7	5.65	0.05	15.29	0.03	0.01	0.504	0.003	0.370	0.002	0.001	3.720	2.680	0.040	8.420	0.030	0.010	0.2433	0.17528	0.00262	0.55069	0.00196	0.00065
N261	150	1	Patch	4	7.77	4.83	0.02	14.53	0.06	0.02	0.535	0.001	0.332	0.004	0.001	3.520	2.240	0.010	7.720	0.050	0.010	0.24226	0.15416	0.00069	0.53131	0.00344	0.00069
N261	151	1	Patch	4	6.34	3.98	0.02	12.3	0.15	0.03	0.515	0.002	0.324	0.012	0.002	2.790	1.800	0.020	6.180	0.130	0.030	0.22683	0.14634	0.00163	0.50244	0.01057	0.00244
N261	157	1	Patch	4	5.24	6.16	0.03	13.58	0.07	0.04	0.386	0.002	0.454	0.005	0.003	2.570	2.740	0.030	7.020	0.060	0.040	0.18925	0.20177	0.00221	0.51694	0.00442	0.00295
N261	158	1	Patch	4	7.32	6.5	0.04	15.87	0.01	0.01	0.461	0.003	0.410	0.001	0.001	3.580	3.040	0.040	8.620	0.010	0.010	0.22558	0.19156	0.00252	0.54316	0.00063	0.00063
N261	159	1	Patch	4	7.68	5.09	0.03	14.36	0.04	0.01	0.535	0.002	0.354	0.003	0.001	3.660	2.420	0.030	7.960	0.040	0.010	0.25487	0.16852	0.00209	0.55432	0.00279	0.0007
N261	160	1	Patch	4	7.43	4.59	0.01	13.94	0.09	0.02	0.533	0.001	0.329	0.006	0.001	3.340	2.120	0.010	7.330	0.080	0.020	0.2396	0.15208	0.00072	0.52582	0.00574	0.00143

■ QTM1 N261 Low channel MIMO

										Max Ratio															Max Ratio					
										0.522	0.005	0.486	0.016	0.007											0.263	0.224	0.003	0.605	0.015	0.006
N261	128	0	1	Patch	2	4.42	3.82	0.03	9.07	0.07	0.03	0.487	0.003	0.421	0.008	0.003	1.700	1.520	0.020	3.990	0.060	0.020	0.18749	0.16759	0.0221	0.43991	0.00662	0.00221		
N261	130	2	1	Patch	2	4.47	3.67	0.02	8.94	0.09	0.03	0.500	0.002	0.411	0.010	0.003	1.710	1.440	0.010	3.980	0.080	0.020	0.19128	0.16017	0.0112	0.44519	0.00895	0.00224		
N261	133	5	1	Patch	2	6.32	4.47	0.06	14.7	0.15	0.06	0.430	0.004	0.304	0.010	0.004	2.750	1.830	0.040	6.360	0.150	0.050	0.18707	0.12449	0.0272	0.42365	0.0102	0.00394		
N261	134	6	1	Patch	4	9.39	6.9	0.04	18.3	0.06	0.02	0.513	0.002	0.374	0.003	0.001	4.430	2.820	0.030	10.560	0.060	0.020	0.24208	0.1541	0.0164	0.57705	0.00328	0.00108		
N261	135	7	1	Patch	4	7.3	8.21	0.04	16.9	0.11	0.03	0.432	0.002	0.486	0.007	0.002	3.160	3.780	0.030	9.330	0.110	0.030	0.18698	0.22367	0.0278	0.55207	0.00651	0.00178		
N261	136	8	1	Patch	4	5.98	6.07	0.04	14.35	0.19	0.06	0.417	0.003	0.423	0.013	0.004	2.670	2.630	0.040	5.930	0.180	0.060	0.18606	0.18328	0.0279	0.53421	0.01254	0.00048		
N261	141	13	1	Patch	4	8.84	6.24	0.05	17.22	0.08	0.05	0.513	0.003	0.362	0.005	0.003	3.880	2.840	0.040	8.600	0.080	0.050	0.25232	0.16492	0.0232	0.49942	0.00465	0.00029		
N261	142	14	1	Patch	4	9.91	7.49	0.03	18.97	0.04	0.02	0.522	0.002	0.395	0.002	0.001	4.810	3.090	0.030	10.890	0.040	0.020	0.25356	0.16289	0.0158	0.57406	0.00211	0.00005		
N261	143	15	1	Patch	4	7.14	6.12	0.06	16.34	0.12	0.05	0.437	0.004	0.375	0.007	0.003	3.400	2.500	0.040	7.860	0.110	0.040	0.18605	0.153	0.0245	0.48103	0.00673	0.00245		
N261	147	19	1	Patch	8	12.99	10.89	0.13	27.94	0.25	0.15	0.465	0.005	0.390	0.009	0.005	6.200	4.440	0.080	13.210	0.240	0.130	0.22219	0.15891	0.0286	0.47178	0.00859	0.00065		
N261	148	20	1	Patch	8	17.3	14.61	0.07	36.08	0.08	0.05	0.479	0.003	0.405	0.002	0.001	8.570	6.980	0.060	21.260	0.080	0.050	0.23753	0.19346	0.0168	0.58925	0.00222	0.00039		
N261	149	21	1	Patch	8	18.17	14.47	0.09	35.56	0.09	0.02	0.511	0.003	0.407	0.003	0.001	9.370	7.190	0.070	21.500	0.090	0.020	0.2635	0.20219	0.0197	0.60461	0.00253	0.00156		
N261	150	22	1	Patch	8	14.26	13.62	0.05	32.16	0.16	0.05	0.443	0.002	0.424	0.005	0.002	6.840	6.330	0.040	17.840	0.140	0.050	0.21269	0.19683	0.0124	0.55473	0.00435	0.00155		
N261	151	23	1	Patch	8	11.14	11.4	0.06	27.47	0.43	0.18	0.406	0.002	0.415	0.016	0.007	5.220	4.710	0.060	12.890	0.400	0.170	0.19003	0.17146	0.0218	0.46624	0.01456	0.00169		
N261	157	29	1	Patch	8	13.94	11.99	0.08	29.79	0.15	0.09	0.468	0.003	0.402	0.005	0.003	6.860	5.490	0.050	16.160	0.140	0.080	0.23028	0.18429	0.0168	0.54246	0.0047	0.00269		
N261	158	30	1	Patch	8	18.61	14.49	0.09	36.61	0.04	0.04	0.508	0.002	0.396	0.001	0.001	9.510	7.080	0.080	22.060	0.030	0.040	0.25977	0.19339	0.0219	0.60257	0.00082	0.00079		
N261	159	31	1	Patch	8	17.04	14.41	0.09	34.64	0.11	0.03	0.492	0.003	0.416	0.003	0.001	8.580	7.020	0.060	20.470	0.100	0.130	0.24769	0.20266	0.0173	0.59094	0.00289	0.00087		
N261	160	32	1	Patch	8	12.4	12.54	0.05	29.03	0.27	0.11	0.427	0.002	0.432	0.009	0.004	5.830	5.520	0.040	14.200	0.250	0.110	0.20083	0.19015	0.0138	0.48915	0.00861	0.00079		

- QTM0 N261 Middle channel SISO

				Max Ratio											Max Ratio												
				0.501	0.003	0.461	0.014	0.009												0.236	0.216	0.567	0.003	0.013	0.009		
n=261M dc (28GHz)				AcM2 PQ(Win2) at 2mm evaluation surfaces @6dBm											AcM2 PQ(Win2) at 3mm evaluation surfaces @6dBm												
				relative phase worst PD for MMQ											relative phase worst PD for MMQ												
				Front /	Right	back	TOP	Bottom												Front /	back	left	Right	TOP	Bottom		
				(worst surface)	(worst surface)	(worst surface)	(worst surface)	(worst surface)	Front	Back	Left	Right	Top	Bottom	surface 2mmFront	surface 2mmBack	surface 2mmLeft	surface 2mmRight	surface 2mmTop	surface 2mmBottom							
N261	1	0	Patch	1	1.37	1.31	3.72	0	0.01	0.01	0.368	0.000	0.352	0.003	0.003	0.52	0.52	1.71	0	0.01	0.01	0.13978	0.13978	0.45968	0	0.00269	0.00269
N261	3	0	Patch	1	1.8	1.57	4.72	0	0.01	0.01	0.381	0.000	0.333	0.002	0.002	0.66	0.62	2.12	0	0.01	0.01	0.13983	0.13136	0.44915	0	0.00212	0.00212
N261	4	0	Patch	1	1.55	1.74	4.51	0	0.01	0.01	0.02	0.004	0.386	0.002	0.004	0.62	0.66	1.94	0	0.01	0.02	0.13747	0.14634	0.43016	0	0.00222	0.00448
N261	9	0	Patch	2	2.11	2.3	7.27	0.01	0.03	0.03	0.290	0.001	0.316	0.004	0.004	0.75	0.96	2.72	0	0.03	0.03	0.10316	0.13205	0.37414	0	0.00413	0.00413
N261	10	0	Patch	2	2.53	3.35	8.05	0.01	0.02	0.03	0.314	0.001	0.416	0.002	0.004	1.04	1.44	3.87	0.01	0.02	0.02	0.12919	0.17888	0.48075	0.00124	0.00248	0.00248
N261	11	0	Patch	2	4.02	3.93	9.63	0.01	0.01	0.02	0.417	0.001	0.408	0.001	0.002	1.78	1.71	5.22	0	0.01	0.02	0.18484	0.17757	0.54206	0	0.00104	0.00208
N261	12	0	Patch	2	4.26	2.88	8.96	0.01	0.04	0.01	0.475	0.001	0.321	0.004	0.001	1.92	1.21	4.61	0.01	0.04	0.01	0.21429	0.13504	0.51451	0.00112	0.00446	0.00112
N261	16	0	Patch	2	3.37	3.16	8.72	0.01	0.04	0.03	0.386	0.001	0.362	0.005	0.003	1.47	1.31	4.21	0.01	0.04	0.02	0.16858	0.15023	0.4828	0.00115	0.00459	0.00229
N261	17	0	Patch	2	4.3	4.26	10.13	0.01	0.01	0.01	0.424	0.001	0.421	0.001	0.001	1.91	1.84	5.61	0.01	0.01	0.01	0.18855	0.1864	0.5538	0.00099	0.00099	0.00099
N261	18	0	Patch	2	4.26	3.34	9.23	0.01	0.03	0	0.462	0.001	0.362	0.003	0.000	1.9	1.43	4.99	0.01	0.03	0	0.20585	0.15493	0.54063	0.00108	0.00325	0
N261	24	0	Patch	2	3.83	4.15	11.15	0.02	0.09	0.1	0.343	0.002	0.372	0.008	0.009	1.74	1.56	4.83	0.02	0.09	0.1	0.15605	0.13991	0.43318	0.00179	0.00807	0.00807
N261	25	0	Patch	4	5.63	6.51	14.91	0.02	0.04	0.04	0.378	0.001	0.437	0.003	0.003	2.69	2.96	7.77	0.02	0.03	0.04	0.18042	0.19852	0.52113	0.00134	0.00201	0.00268
N261	26	0	Patch	4	7.18	7.74	17.43	0.03	0.02	0.02	0.412	0.002	0.444	0.001	0.001	3.68	3.55	9.81	0.02	0.02	0.02	0.21133	0.20367	0.56282	0.00115	0.00115	0.00115
N261	27	0	Patch	4	7.37	7.2	17.14	0.02	0.02	0.01	0.430	0.001	0.420	0.001	0.001	3.76	3.52	9.6	0.01	0.02	0.01	0.21937	0.20537	0.56009	0.00058	0.00117	0.00058
N261	28	0	Patch	4	7.73	4.92	14.63	0.03	0.08	0.04	0.460	0.002	0.336	0.005	0.003	3.3	2.38	7.3	0.02	0.07	0.04	0.22556	0.16268	0.49897	0.00137	0.00478	0.00273
N261	33	0	Patch	4	4.85	5.3	12.98	0.03	0.05	0.06	0.374	0.002	0.408	0.004	0.005	2.24	2.28	6.35	0.02	0.05	0.06	0.17257	0.17565	0.48921	0.00154	0.00385	0.00462
N261	34	0	Patch	4	6.37	7.61	16.51	0.02	0.03	0.03	0.386	0.001	0.461	0.002	0.002	3.14	3.56	8.94	0.02	0.02	0.03	0.19019	0.21563	0.54149	0.00121	0.00121	0.00182
N261	35	0	Patch	4	7.4	7.36	17.17	0.02	0.01	0.01	0.431	0.001	0.429	0.001	0.001	3.79	3.47	9.7	0.01	0.01	0.01	0.22073	0.2021	0.56494	0.00058	0.00058	0.00058
N261	36	0	Patch	4	7.27	6.55	16.75	0.02	0.03	0.02	0.434	0.001	0.391	0.002	0.001	3.68	3.19	9.12	0.02	0.03	0.02	0.2197	0.19045	0.54448	0.00119	0.00179	0.00119
N261	129	0	Patch	1	1.67	1.23	3.89	0.01	0.04	0.01	0.429	0.003	0.316	0.001	0.003	0.66	0.48	1.5	0.01	0.04	0.01	0.16967	0.12339	0.3856	0.00057	0.00108	0.00257
N261	131	0	Patch	1	1.5	1.61	4.19	0	0.02	0.01	0.358	0.000	0.384	0.005	0.002	0.58	0.61	1.96	0	0.02	0.01	0.13842	0.14559	0.46778	0	0.00477	0.00257
N261	132	0	Patch	2	1.7	1.37	4.26	0	0.01	0.01	0.399	0.000	0.322	0.002	0.002	0.66	0.54	1.9	0	0.01	0.01	0.15493	0.12676	0.46401	0	0.00339	0.00235
N261	137	0	Patch	2	2.48	1.86	6.4	0.01	0.09	0.03	0.388	0.002	0.291	0.014	0.005	1.07	0.73	2.31	0.01	0.08	0.03	0.16719	0.11406	0.36594	0.00156	0.00125	0.00469
N261	138	0	Patch	2	3.8	2.42	7.59	0.02	0.03	0.01	0.501	0.003	0.319	0.004	0.001	1.79	0.99	3.83	0.02	0.03	0.01	0.23584	0.13043	0.50461	0.00284	0.00395	0.00132
N261	139	0	Patch	2	3.73	3.7	9.07	0.01	0.02	0.02	0.411	0.001	0.408	0.002	0.002	1.67	1.63	4.99	0.01	0.02	0.02	0.18412	0.17971	0.55017	0.0011	0.00021	0.00221
N261	140	0	Patch	2	2.16	2.07	6.89	0.01	0.02	0.03	0.313	0.001	0.303	0.003	0.004	0.91	0.89	2.84	0	0.02	0.03	0.13208	0.12917	0.41219	0	0.0029	0.00435
N261	144	0	Patch	2	3.4	3.27	8.27	0.01	0.02	0.02	0.411	0.001	0.395	0.002	0.002	1.51	1.37	4.3	0	0.02	0.02	0.18259	0.16566	0.51995	0	0.00242	0.00242
N261	145	0	Patch	2	4.29	3.15	8.87	0.02	0.01	0	0.484	0.002	0.355	0.001	0.000	2.01	1.29	4.83	0.02	0.01	0	0.22661	0.14543	0.54453	0.00225	0.00113	0
N261	146	0	Patch	2	3.37	3.61	8.9	0.01	0.06	0.01	0.379	0.001	0.406	0.007	0.001	1.48	1.57	4.32	0.01	0.06	0.01	0.16629	0.1764	0.48339	0.00112	0.00674	0.00131
N261	152	0	Patch	2	5.55	3.76	11.31	0.02	0.07	0.07	0.491	0.002	0.332	0.006	0.006	2.44	1.63	5.09	0.02	0.06	0.06	0.21574	0.14412	0.45004	0.00177	0.00531	0.00512
N261	153	0	Patch	4	6.81	4.77	14.22	0.02	0.04	0.03	0.479	0.001	0.335	0.003	0.002	3.34	2.12	7.37	0.02	0.03	0.03	0.23488	0.14909	0.51828	0.00141	0.00211	0.00211
N261	154	0	Patch	4	7.67	6.51	16.65	0.03	0.01	0.01	0.461	0.002	0.391	0.001	0.001	3.83	3.1	9.29	0.02	0.01	0.01	0.23003	0.18619	0.55796	0.0012	0.0006	0.0006
N261	155	0	Patch	4	7.51	7.16	16.99	0.04	0.04	0.01	0.442	0.002	0.421	0.002	0.001	3.81	3.39	9.61	0.03	0.04	0.01	0.22425	0.19953	0.56563	0.00177	0.00235	0.00059
N261	156	0	Patch	4	4.95	0.55	12.76	0.02	0.07	0.05	0.388	0.002	0.396	0.005	0.004	2.35	2.26	6.6	0.02	0.07	0.05	0.18417	0.17712	0.51724	0.00157	0.00549	0.00392
N261	161	0	Patch	4	6.1	4.25	12.59	0.02	0.04	0.05	0.485	0.002	0.338	0.003	0.004	2.82	1.84	6.07	0.02	0.04	0.05	0.22399	0.14615	0.48213	0.00159	0.00318	0.00397
N261	162	0	Patch	4	7.43	5.57	15.82	0.03	0.04	0.02	0.470	0.002	0.352	0.003	0.004	3.68	2.58	8.55	0.02	0.03	0.02	0.23262	0.16308	0.54046	0.00126	0.0019	0.0026
N261	163	0	Patch	4	7.7	6.76	16.72	0.04	0.02	0	0.461	0.002	0.404	0.001	0.000	3.89	3.19	9.38	0.03	0.02	0	0.23266	0.19079	0.561	0.00179	0.0012	0
N261	164	0	Patch	4	6.22	6.8	15.26	0.02	0.05	0.03	0.408	0.001	0.446	0.003	0.002	3	3.14	8.66	0.02	0.04	0.02	0.19659	0.20577	0.5675	0.00131	0.00262	0.00131

- QTM0 N261 Middle channel MIMO

[illegible]

■ QTM1 N261 Middle channel SISO

										Max Ratio															Max Ratio									
										0.541	0.005	0.499	0.021	0.009											0.261	0.227	0.003	0.575	0.020	0.008				
n261Mid ch (28GHz)										Ratio					Ratio										Ratio									
4cm2 PD(Win2) at 2mm evaluation surfaces (dBd)										relative phase worst PD for MIMO					4cm2 PD(Win2) at 2mm evaluation surfaces (dBd)										relative phase worst PD for MIMO									
										Ratio															Ratio									
Band	Beam_ID	Ant module	Ant Type	Numers of Feeds	Front	Back	Left	Right	Top	Bottom	Front / (worst surface)	left (worst surface)	back (worst surface)	TOP (worst surface)	Bottom (worst surface)	Front / (worst surface)	Back / (worst surface)	Left / (worst surface)	Right / (worst surface)	Top / (worst surface)	Bottom / (worst surface)	Front / (worst surface)	Back / (worst surface)	Left / (worst surface)	Right / (worst surface)	Top / (worst surface)	Bottom / (worst surface)	Front / (worst surface)	Back / (worst surface)	Left / (worst surface)	Right / (worst surface)	Top / (worst surface)	Bottom / (worst surface)	
N261	0	1	Patch	1	1.67	1.37	0.01	3.83	0.02	0.01	0.436	0.003	0.358	0.005	0.003	0.62	0.53	0.01	1.75	0.01	0.01	0.16188	0.13838	0.00261	0.45692	0.00261	0.00261	0.00261	0.00261	0.00261	0.00261	0.00261	0.00261	
N261	2	1	Patch	1	1.63	1.48	0.01	4.08	0.02	0.01	0.400	0.002	0.363	0.005	0.002	0.62	0.56	0	1.87	0.02	0.01	0.15196	0.13725	0	0.45833	0.0049	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	
N261	5	1	Patch	2	2.51	1.67	0.03	6.08	0.06	0.02	0.413	0.005	0.275	0.010	0.003	1.19	0.64	0.02	2.62	0.06	0.02	0.19572	0.10526	0.00329	0.43092	0.00987	0.00329	0.00329	0.00329	0.00329	0.00329	0.00329	0.00329	
N261	6	1	Patch	2	3.83	2.45	0.02	7.31	0.02	0.01	0.524	0.003	0.335	0.003	0.001	1.82	0.99	0.02	4.11	0.02	0	0.24897	0.13543	0.00274	0.56224	0.00274	0	0.00274	0.00274	0.00274	0.00274	0.00274	0.00274	
N261	7	1	Patch	2	2.33	3.44	0.03	7.01	0.06	0.01	0.332	0.004	0.491	0.009	0.001	1.04	1.45	0.02	3.51	0.05	0.01	0.14836	0.20685	0.00285	0.50071	0.00713	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143		
N261	8	1	Patch	2	1.94	2.44	0.02	6.15	0.07	0.02	0.315	0.003	0.397	0.011	0.003	0.68	0.98	0.02	2.21	0.07	0.02	0.11057	0.15935	0.00325	0.35935	0.01138	0.00325	0.00325	0.00325	0.00325	0.00325	0.00325	0.00325	
N261	13	1	Patch	2	4.06	2.71	0.02	7.84	0.01	0.01	0.518	0.003	0.346	0.001	0.001	1.86	1.13	0.01	4.24	0.01	0.01	0.23724	0.14413	0.00128	0.54082	0.00128	0.00128	0.00128	0.00128	0.00128	0.00128	0.00128	0.00128	
N261	14	1	Patch	2	4.11	3.6	0.01	8.89	0.02	0.01	0.462	0.001	0.405	0.002	0.001	1.85	1.54	0.01	4.88	0.02	0.01	0.2081	0.17323	0.00112	0.54893	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	
N261	15	1	Patch	2	2.61	2.47	0.01	6.56	0.05	0.02	0.398	0.002	0.377	0.008	0.003	1.15	1.04	0.01	3	0.05	0.02	0.1753	0.15854	0.00152	0.45732	0.00762	0.00305	0.00305	0.00305	0.00305	0.00305	0.00305	0.00305	
N261	19	1	Patch	4	6.36	4.07	0.03	12.38	0.07	0.02	0.514	0.002	0.329	0.006	0.002	3.09	1.91	0.02	6.54	0.07	0.02	0.2496	0.15428	0.00162	0.52827	0.00565	0.00162	0.00162	0.00162	0.00162	0.00162	0.00162	0.00162	
N261	20	1	Patch	4	8.38	5.99	0.03	16.27	0.03	0.01	0.515	0.002	0.368	0.002	0.001	4.15	2.91	0.02	9.23	0.03	0.01	0.25507	0.17886	0.00123	0.5673	0.00184	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	
N261	21	1	Patch	4	7.42	6.99	0.02	16.13	0.02	0.01	0.460	0.001	0.433	0.001	0.001	3.85	3.37	0.02	9.26	0.02	0.01	0.23869	0.20893	0.00124	0.57409	0.00124	0.00124	0.00124	0.00124	0.00124	0.00124	0.00124	0.00124	
N261	22	1	Patch	4	5.6	7.07	0.03	14.19	0.06	0.01	0.395	0.002	0.488	0.004	0.001	2.71	3.22	0.02	7.56	0.06	0.01	0.19398	0.22692	0.00141	0.53277	0.00423	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	
N261	23	1	Patch	4	3.18	4.16	0.03	8.85	0.19	0.08	0.359	0.003	0.470	0.021	0.009	1.5	1.64	0.03	4.21	0.18	0.07	0.16946	0.18631	0.00339	0.47571	0.00394	0.00791	0.00791	0.00791	0.00791	0.00791	0.00791	0.00791	
N261	29	1	Patch	4	7.31	4.92	0.03	14.38	0.04	0.01	0.508	0.002	0.342	0.003	0.001	3.59	2.37	0.02	7.75	0.03	0.01	0.24965	0.16481	0.00139	0.53894	0.00209	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	
N261	30	1	Patch	4	8.05	6.45	0.03	16.35	0.01	0.01	0.492	0.002	0.394	0.001	0.001	4.08	3.14	0.02	9.39	0.01	0.01	0.24954	0.19205	0.00122	0.57431	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	
N261	31	1	Patch	4	6.54	7.36	0.03	15.57	0.04	0.01	0.420	0.002	0.473	0.003	0.001	3.29	3.47	0.02	8.67	0.04	0.01	0.2113	0.22286	0.00128	0.55684	0.00257	0.00064	0.00064	0.00064	0.00064	0.00064	0.00064	0.00064	
N261	32	1	Patch	4	4.33	5.81	0.03	11.65	0.14	0.05	0.372	0.003	0.499	0.012	0.004	2.06	2.45	0.02	5.89	0.13	0.05	0.17682	0.2103	0.00172	0.50558	0.01116	0.00429	0.00429	0.00429	0.00429	0.00429	0.00429	0.00429	
N261	128	1	Patch	4	1.57	1.39	0.01	3.87	0.02	0.01	0.406	0.003	0.359	0.005	0.003	0.6	0.51	0.01	1.85	0.02	0.01	0.15504	0.13178	0.00258	0.47804	0.00517	0.00258	0.00258	0.00258	0.00258	0.00258	0.00258	0.00258	
N261	130	1	Patch	1	1.65	1.18	0.01	3.67	0.03	0.01	0.450	0.003	0.322	0.008	0.003	0.62	0.45	0.01	1.61	0.02	0.01	0.16894	0.12262	0.00272	0.43869	0.00545	0.00272	0.00272	0.00272	0.00272	0.00272	0.00272	0.00272	
N261	133	1	Patch	1	2.18	1.97	0.02	5.93	0.05	0.02	0.368	0.003	0.332	0.008	0.003	0.93	0.82	0.02	2.51	0.05	0.01	0.15683	0.13828	0.00337	0.42327	0.00843	0.00169	0.00169	0.00169	0.00169	0.00169	0.00169	0.00169	
N261	134	1	Patch	2	3.77	3.11	0.02	8.13	0.02	0.01	0.464	0.002	0.383	0.002	0.001	1.74	1.3	0.02	4.45	0.02	0.01	0.21402	0.1599	0.00246	0.54736	0.00246	0.00123	0.00123	0.00123	0.00123	0.00123	0.00123	0.00123	
N261	135	1	Patch	2	4.01	3.2	0.01	8.41	0.02	0.01	0.477	0.001	0.380	0.002	0.001	1.77	1.36	0.01	4.63	0.02	0.01	0.21046	0.16171	0.00119	0.55054	0.00238	0.00119	0.00119	0.00119	0.00119	0.00119	0.00119	0.00119	
N261	136	1	Patch	2	3.03	1.71	0.02	6.42	0.05	0.01	0.472	0.003	0.266	0.008	0.002	1.38	0.69	0.02	2.89	0.04	0.01	0.21495	0.10748	0.00312	0.45016	0.00623	0.00156	0.00156	0.00156	0.00156	0.00156	0.00156	0.00156	
N261	141	1	Patch	2	2.79	2.46	0.02	6.79	0.04	0.01	0.411	0.003	0.362	0.006	0.001	1.26	1.05	0.02	3.31	0.04	0.01	0.18557	0.15464	0.00295	0.48748	0.00589	0.00147	0.00147	0.00147	0.00147	0.00147	0.00147	0.00147	
N261	142	1	Patch	2	4.38	3.19	0.01	8.43	0.01	0	0.520	0.001	0.378	0.001	0.000	1.97	1.37	0.01	4.85	0.01	0	0.23669	0.16251	0.00119	0.57533	0.00119	0	0.00119	0.00119	0.00119	0.00119	0.00119	0.00119	0.00119
N261	143	1	Patch	2	3.33	2.63	0.02	7.4	0.05	0.02	0.450	0.003	0.355	0.007	0.003	1.42	1.15	0.01	3.68	0.04	0.02	0.19189	0.15541	0.00135	0.4973	0.00541	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	
N261	147	1	Patch	2	3.66	4.39	0.04	9.84	0.11	0.05	0.372	0.004	0.446	0.011	0.005	1.8	1.88	0.02	4.94	0.1	0.05	0.18293	0.19106	0.00203	0.50203	0.01016	0.00508	0.00508	0.00508	0.00508	0.00508	0.00508	0.00508	
N261	148	1	Patch	4	5.9	6.55	0.03	14.46	0.01	0.02	0.408	0.002	0.453	0.001	0.001	2.77	3.08	0.02	7.84	0.01	0.02	0.19156	0.213	0.00138	0.54219	0.00096	0.00138	0.00138	0.00138	0.00138	0.00138	0.00138	0.00138	
N261	149	1	Patch	4	7.49	5.39	0.05	14.77	0.03	0.01	0.507	0.003	0.365	0.002	0.001	3.66	2.55	0.04	8.22	0.03	0.01	0.2478	0.17265	0.00271	0.55653	0.00203	0.00068	0.00068	0.00068	0.00068	0.00068	0.00068	0.00068	
N261	150	1	Patch	4	7.36	4.58	0.02	13.64	0.05	0.01	0.540	0.001	0.336	0.004	0.001	3.4	2.1	0.02	7.29	0.05	0.01	0.24927	0.15396	0.00147	0.53446	0.00367	0.00073	0.00073	0.00073	0.00073	0.00073	0.00073	0.00073	
N261	151	1	Patch	4	5.75	3.52	0.02	10.9	0.11	0.03	0.528	0.002	0.323	0.010	0.003	2.58	1.61	0.01	5.55	0.1	0.03	0.2387	0.14771	0.00092	0.50917	0.00917	0.00075	0.00075	0.00075	0.00075	0.00075	0.00075	0.00075	
N261	157	1	Patch	4	4.62	5.55	0.02	12.1	0.07	0.03	0.382	0.002	0.459	0.006	0.002	2.27	2.59	0.02	6.45	0.07	0.03	0.1876	0.21405	0.00165	0.53336	0.00579	0.00248	0.00248						
N261	158	1	Patch	4	6.97	6.36	0.04	15.36	0.01	0.01	0.454	0.003	0.414	0.001	0.001	3.42	3.02	0.03	8.4	0.01	0.01	0.22266	0.19661	0.00195	0.54688	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	
N261	159	1	Patch	4	7.53	4.82	0.04	13.92	0.04	0.01	0.541	0.003	0.346	0.003	0.001	3.63	2.63	0.03	7.75	0.04	0.01	0.26078	0.16236	0.00216	0.55675	0.0								

■ QTM0 N261 High channel SISO

												Max Ratio															Max Ratio					
												0.494	0.003	0.467	0.013	0.010											0.232	0.232	0.567	0.003	0.013	0.010
n2614 ch. (28.35GHz)		4cm2 PD(Worst) at 2mm evaluation surfaces @6dBm										Ratio					4cm2 PD(Worst) at 30mm evaluation surfaces @6dBm										Ratio					
		relative phase worst PD for MIMO										Front /	Right	Back	TOP	Bottom	relative phase worst PD for MIMO										Front /	Back	Left	Right	TOP	Bottom
Band	Beam_ID	Ant module	Ant Type	Mumers of Feeds	Front	Back	Left	Right	Top	Bottom	(worst surface)	(worst surface)	(worst surface)	(worst surface)	(worst surface)	Front	Back	Left	Right	Top	Bottom	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm					
N261	1	0	Patch	1	1.390	1.190	3.640	0.000	0.010	0.010	0.382	0.000	0.327	0.003	0.003	0.540	0.450	1.690	0.000	0.010	0.010	0.14835	0.14835	0.46429	0	0.02275	0.02275					
N261	3	0	Patch	1	1.660	1.440	4.310	0.000	0.010	0.010	0.385	0.000	0.334	0.002	0.002	0.620	0.570	1.940	0.000	0.010	0.010	0.14385	0.14385	0.45012	0	0.02332	0.02332					
N261	4	0	Patch	1	1.360	1.700	4.140	0.000	0.010	0.020	0.329	0.000	0.411	0.002	0.005	0.540	0.650	1.750	0.000	0.010	0.010	0.13043	0.13043	0.42271	0	0.02442	0.02442					
N261	9	0	Patch	2	2.000	2.280	7.040	0.010	0.030	0.030	0.284	0.001	0.324	0.004	0.004	0.760	0.900	2.700	0.000	0.030	0.030	0.10795	0.10795	0.38352	0	0.04026	0.04026					
N261	10	0	Patch	2	2.510	3.220	7.860	0.010	0.020	0.020	0.319	0.001	0.410	0.003	0.003	1.060	1.340	3.830	0.010	0.020	0.020	0.13486	0.13486	0.48728	0.00127	0.02045	0.02045					
N261	11	0	Patch	2	3.660	3.800	8.980	0.010	0.010	0.020	0.408	0.001	0.423	0.001	0.002	1.610	1.660	4.850	0.000	0.010	0.020	0.17929	0.17929	0.54009	0	0.10111	0.02223					
N261	12	0	Patch	2	4.070	2.530	8.240	0.010	0.030	0.010	0.494	0.001	0.307	0.004	0.001	1.860	1.060	4.270	0.010	0.030	0.010	0.22573	0.22573	0.5182	0.00121	0.03664	0.00121					
N261	16	0	Patch	2	3.060	2.870	7.830	0.010	0.030	0.030	0.391	0.001	0.367	0.004	0.004	1.320	1.160	3.750	0.010	0.030	0.020	0.16858	0.16858	0.47893	0.00128	0.03883	0.00125					
N261	17	0	Patch	2	3.950	4.070	9.420	0.010	0.010	0.010	0.419	0.001	0.432	0.001	0.001	1.750	1.760	5.190	0.010	0.010	0.010	0.18577	0.18577	0.55096	0.00106	0.0106	0.00106					
N261	18	0	Patch	2	4.130	2.990	8.600	0.010	0.030	0.000	0.480	0.001	0.348	0.003	0.000	1.860	1.280	4.680	0.010	0.020	0.000	0.21628	0.21628	0.54419	0.00116	0.0233	0					
N261	24	0	Patch	2	3.420	4.110	10.490	0.020	0.090	0.100	0.326	0.002	0.392	0.009	0.010	1.480	1.560	4.490	0.020	0.090	0.100	0.14109	0.14109	0.42803	0.00191	0.08658	0.00953					
N261	25	0	Patch	4	5.180	5.970	13.660	0.020	0.030	0.040	0.379	0.001	0.437	0.002	0.003	2.460	2.730	7.120	0.020	0.030	0.030	0.18009	0.18009	0.52123	0.00146	0.0022	0.0022					
N261	26	0	Patch	4	6.640	7.500	16.570	0.030	0.020	0.020	0.401	0.002	0.453	0.001	0.001	3.370	3.420	9.290	0.020	0.020	0.020	0.20388	0.20388	0.56065	0.00121	0.0121	0.0121					
N261	27	0	Patch	4	7.100	6.600	16.210	0.010	0.020	0.010	0.438	0.001	0.407	0.001	0.001	3.600	3.200	9.140	0.010	0.020	0.010	0.22209	0.22209	0.56385	0.00062	0.0123	0.00062					
N261	28	0	Patch	4	6.120	4.500	13.270	0.030	0.060	0.030	0.461	0.002	0.339	0.005	0.002	3.010	2.160	6.620	0.020	0.060	0.030	0.16955	0.16955	0.49887	0.00151	0.04562	0.00151					
N261	33	0	Patch	4	4.390	5.000	11.960	0.030	0.060	0.060	0.367	0.003	0.418	0.005	0.005	1.980	2.170	5.810	0.020	0.060	0.060	0.16585	0.16585	0.48579	0.00167	0.05052	0.00167					
N261	34	0	Patch	4	5.880	7.180	15.390	0.020	0.020	0.020	0.382	0.001	0.467	0.001	0.002	2.910	3.390	8.340	0.020	0.020	0.020	0.18908	0.18908	0.54191	0.0013	0.0013	0.0013					
N261	35	0	Patch	4	6.940	6.990	16.290	0.020	0.010	0.010	0.426	0.001	0.429	0.001	0.001	3.530	3.270	9.200	0.010	0.010	0.010	0.2167	0.2167	0.56476	0.00061	0.00061	0.00061					
N261	36	0	Patch	4	6.840	6.100	15.660	0.020	0.030	0.020	0.437	0.001	0.390	0.002	0.001	3.450	2.970	8.510	0.020	0.030	0.020	0.22031	0.22031	0.54342	0.00128	0.01912	0.00128					
N261	129	0	Patch	1	1.490	1.270	3.740	0.010	0.040	0.010	0.398	0.003	0.340	0.011	0.003	0.590	0.500	1.460	0.000	0.040	0.010	0.15775	0.15775	0.39937	0	0.0107	0.02027					
N261	131	0	Patch	1	1.340	1.500	3.810	0.000	0.010	0.010	0.352	0.000	0.394	0.003	0.003	0.510	0.580	1.740	0.000	0.010	0.010	0.13386	0.13386	0.45569	0	0.0262	0.0262					
N261	132	0	Patch	2	1.590	1.250	3.950	0.000	0.010	0.010	0.403	0.000	0.316	0.003	0.003	0.610	0.500	1.740	0.000	0.010	0.010	0.15443	0.15443	0.44051	0	0.0253	0.0253					
N261	137	0	Patch	2	2.360	1.840	6.170	0.010	0.080	0.030	0.382	0.002	0.298	0.013	0.005	1.010	0.730	2.250	0.010	0.080	0.030	0.1637	0.1637	0.36467	0.00162	0.01297	0.00162					
N261	138	0	Patch	2	3.550	2.390	7.300	0.020	0.030	0.010	0.486	0.003	0.327	0.004	0.001	1.660	0.960	3.670	0.020	0.030	0.010	0.2274	0.2274	0.50274	0.00274	0.04411	0.0137					
N261	139	0	Patch	2	3.510	3.340	8.360	0.010	0.010	0.020	0.420	0.001	0.400	0.001	0.002	1.560	1.460	4.570	0.010	0.010	0.020	0.1866	0.1866	0.54665	0.0012	0.0012	0.00339					
N261	140	0	Patch	2	1.970	1.870	6.280	0.010	0.020	0.030	0.314	0.002	0.298	0.003	0.005	0.840	0.800	2.570	0.010	0.020	0.020	0.13376	0.13376	0.40924	0.00159	0.01918	0.00159					
N261	144	0	Patch	2	3.050	3.050	7.610	0.000	0.020	0.020	0.401	0.000	0.401	0.003	0.003	1.340	1.280	3.990	0.000	0.020	0.020	0.17608	0.17608	0.52431	0	0.0263	0.0263					
N261	145	0	Patch	2	3.910	3.140	8.410	0.020	0.010	0.000	0.465	0.002	0.373	0.001	0.000	1.810	1.300	4.560	0.020	0.010	0.000	0.21522	0.21522	0.54221	0.00238	0.01119	0					
N261	146	0	Patch	2	2.920	3.550	8.130	0.010	0.050	0.010	0.359	0.001	0.437	0.006	0.001	1.270	1.570	4.040	0.010	0.050	0.010	0.15621	0.15621	0.49692	0.00123	0.06615	0.00123					
N261	152	0	Patch	2	5.010	3.450	10.580	0.030	0.060	0.070	0.474	0.003	0.326	0.006	0.007	2.190	1.510	4.780	0.020	0.060	0.060	0.20699	0.20699	0.4518	0.00189	0.05667	0.00189					
N261	153	0	Patch	4	6.450	4.410	13.510	0.020	0.030	0.030	0.477	0.001	0.326	0.002	0.002	3.140	1.970	7.080	0.020	0.030	0.020	0.23242	0.23242	0.52406	0.00148	0.02222	0.00148					
N261	154	0	Patch	4	7.160	6.120	15.670	0.030	0.010	0.010	0.457	0.002	0.391	0.001	0.001	3.540	2.860	8.740	0.020	0.010	0.010	0.22591	0.22591	0.55775	0.00128	0.0064	0.0064					
N261	155	0	Patch	4	7.000	6.810	15.950	0.030	0.030	0.010	0.439	0.002	0.427	0.002	0.001	3.540	3.190	9.050	0.030	0.030	0.010	0.22194	0.22194	0.56474	0.00188	0.0188	0.00335					
N261	156	0	Patch	4	4.250	4.540	11.270	0.020	0.060	0.050	0.377	0.002	0.403	0.005	0.004	1.970	2.010	5.760	0.020	0.060	0.040	0.1748	0.1748	0.51109	0.00177	0.0532	0.00355					
N261	161	0	Patch	4	5.580	3.890	11.860	0.020	0.040	0.050	0.470	0.002	0.328	0.003	0.004	2.580	1.710	5.760	0.020	0.040	0.040	0.21754	0.21754	0.48567	0.00169	0.0337	0.00337					
N261	162	0	Patch	4	7.110	5.180	15.010	0.030	0.030	0.020	0.474	0.002	0.345	0.002	0.001	3.480	2.380	8.180	0.020	0.030	0.020	0.23185	0.23185	0.54497	0.00133	0.002	0.00133					
N261	163	0	Patch	4	7.190	6.430	15.810	0.040	0.020	0.000	0.455	0.003	0.407	0.001	0.000	3.610	3.000	8.820	0.030	0.020	0.000	0.22834	0.22834	0.55787	0.00119	0.00127	0					
N261	164	0	Patch	4	5.610	6.230	13.820	0.020	0.040	0.020	0.406	0.001	0.451	0.003	0.001	2.690	2.850	7.840	0.020	0.040	0.020	0.19465	0.19465	0.56729	0.00145	0.0289	0.00145					

■ QTM0 N261 High channel MIMO

											Max Ratio																Max Ratio							
											0.505	0.003	0.486	0.012	0.009												0.259	0.259	0.626	0.002	0.011	0.007		
											Ratio					Ratio					Ratio					Ratio								
											Front /	Right	Back	TOP	Bottom	Front /	Back	Left	Right	TOP	Bottom	Front /	Back	Left	Right	TOP	Bottom	Front /	Back	Left	Right	TOP	Bottom	
											(worst	(worst	(worst	(worst	(worst	surface	surface	surface	surface	surface	surface	2mm/2mm	2mm/2mm	2mm/2mm	2mm/2mm	2mm/2mm	2mm/2mm	2mm/2mm	2mm/2mm	2mm/2mm	2mm/2mm	2mm/2mm	2mm/2mm	
Band	Beam_ID	Ant module	Ant Type	Mumers of Feeds	Front	Back	Left	Right	Top	Bottom	Front /	Right	Back	TOP	Bottom	Front /	Back	Left	Right	TOP	Bottom	Front /	Back	Left	Right	TOP	Bottom	Front /	Back	Left	Right	TOP	Bottom	
N261	129	1	0	Patch	2	3.520	2.950	7.860	0.010	0.080	0.030	0.448	0.001	0.375	0.010	0.004	1.370	1.220	3.420	0.010	0.080	0.020	0.1743	0.1743	0.43511	0.00127	0.01018	0.00254						
N261	131	3	0	Patch	2	4.090	4.100	8.650	0.020	0.030	0.040	0.473	0.002	0.474	0.003	0.005	1.590	1.690	3.840	0.010	0.030	0.030	0.18382	0.18382	0.44393	0.00116	0.00347	0.00344						
N261	132	4	0	Patch	2	4.130	4.040	8.620	0.020	0.030	0.040	0.479	0.002	0.469	0.003	0.005	1.650	1.630	3.660	0.010	0.030	0.040	0.19342	0.19342	0.42459	0.00116	0.00348	0.00346						
N261	137	9	0	Patch	4	5.660	5.240	14.100	0.030	0.170	0.110	0.401	0.002	0.372	0.012	0.008	2.440	2.480	5.560	0.030	0.150	0.100	0.17305	0.17305	0.39433	0.00213	0.01064	0.00709						
N261	138	10	0	Patch	4	7.700	7.860	16.170	0.050	0.080	0.070	0.476	0.003	0.486	0.005	0.004	3.540	3.560	8.120	0.040	0.070	0.060	0.21892	0.21892	0.50216	0.00247	0.00333	0.00379						
N261	139	11	0	Patch	4	8.020	7.550	18.300	0.020	0.030	0.050	0.438	0.001	0.413	0.002	0.003	3.610	3.220	11.000	0.020	0.030	0.050	0.19727	0.19727	0.60109	0.00109	0.00164	0.00273						
N261	140	12	0	Patch	4	7.130	4.950	14.480	0.030	0.060	0.050	0.492	0.002	0.342	0.004	0.003	3.250	2.200	7.880	0.020	0.060	0.050	0.22445	0.22445	0.54432	0.00138	0.00414	0.00345						
N261	144	16	0	Patch	4	6.770	6.640	16.470	0.030	0.070	0.060	0.411	0.002	0.394	0.004	0.004	2.950	2.550	8.510	0.020	0.060	0.050	0.17911	0.17911	0.51567	0.00121	0.00364	0.00304						
N261	145	17	0	Patch	4	9.260	8.160	18.570	0.030	0.030	0.020	0.499	0.002	0.439	0.002	0.001	4.340	3.330	11.010	0.020	0.030	0.020	0.23371	0.23371	0.59289	0.00108	0.00162	0.00108						
N261	146	18	0	Patch	4	8.790	8.320	18.210	0.030	0.110	0.020	0.483	0.002	0.457	0.006	0.001	3.940	3.730	9.190	0.020	0.100	0.020	0.21636	0.21636	0.50467	0.0011	0.00545	0.0011						
N261	152	24	0	Patch	8	11.200	10.350	28.060	0.080	0.170	0.240	0.399	0.003	0.369	0.006	0.009	4.920	4.160	12.620	0.060	0.170	0.210	0.17534	0.17534	0.44975	0.00214	0.00606	0.00478						
N261	153	25	0	Patch	8	11.930	11.240	27.110	0.060	0.100	0.110	0.431	0.002	0.406	0.004	0.004	6.000	4.840	15.150	0.050	0.090	0.100	0.21653	0.21653	0.54673	0.00118	0.00325	0.00361						
N261	154	26	0	Patch	8	17.510	14.660	36.110	0.050	0.060	0.040	0.485	0.001	0.406	0.002	0.001	8.900	8.850	22.430	0.050	0.050	0.030	0.24647	0.24647	0.61216	0.00138	0.00138	0.00083						
N261	155	27	0	Patch	8	16.970	14.230	35.730	0.080	0.100	0.040	0.475	0.002	0.398	0.003	0.001	8.730	6.850	22.120	0.060	0.100	0.030	0.24433	0.24433	0.61309	0.00168	0.00208	0.00084						
N261	156	28	0	Patch	8	12.630	10.630	29.080	0.070	0.140	0.100	0.434	0.002	0.366	0.005	0.003	5.830	4.750	13.700	0.060	0.130	0.090	0.20048	0.20048	0.47111	0.00206	0.00447	0.00309						
N261	161	33	0	Patch	8	11.740	10.830	28.350	0.070	0.110	0.110	0.414	0.002	0.382	0.004	0.004	5.380	4.610	13.610	0.060	0.110	0.090	0.18977	0.18977	0.49007	0.00212	0.00388	0.00317						
N261	162	34	0	Patch	8	15.760	13.640	33.980	0.050	0.100	0.070	0.464	0.001	0.384	0.003	0.002	7.870	6.010	20.230	0.040	0.090	0.070	0.23161	0.23161	0.59535	0.00118	0.00265	0.00206						
N261	163	35	0	Patch	8	17.760	14.290	35.170	0.060	0.030	0.020	0.505	0.002	0.406	0.001	0.001	9.120	6.720	22.020	0.050	0.030	0.020	0.25931	0.25931	0.6261	0.00142	0.00085	0.00057						
N261	164	36	0	Patch	8	13.350	12.730	30.280	0.070	0.130	0.070	0.441	0.002	0.420	0.004	0.002	6.900	5.990	18.120	0.050	0.130	0.070	0.22782	0.22782	0.59881	0.00165	0.00249	0.00273						

■ QTM1 N261 High channel SISO

											Max Ratio															Max Ratio					
											0.546	0.005	0.506	0.020	0.010											0.263	0.263	0.004	0.580	0.019	0.009
n261M4 ch. (28.35GHz)											4cm2 PD(Wind) at 2mm evaluation surfaces @6dBm					4cm2 PD(Wind) at 30mm evaluation surfaces @6dBm										Ratio					
											relative phase worst PD for MIMO					relative phase worst PD for MIMO										Ratio					
Band	Beam_ID	Ant. module	Ant. Type	Mumers of Feeds	Front	Back	Left	Right	Top	Bottom	Front / (worst surface)	left (worst surface)	back (worst surface)	TOP (worst surface)	Bottom (worst surface)	Front	Back	Left	Right	Top	Bottom	Front / surface 2mm/2mm	back surface 2mm/2mm	left surface 2mm/2mm	Right surface 2mm/2mm	TOP surface 2mm/2mm	Bottom surface 2mm/2mm				
N261	0	1	Patch	1	1.59	1.19	0.01	3.41	0.01	0.01	0.466	0.003	0.349	0.003	0.003	0.600	0.460	0.010	1.570	0.010	0.010	0.17595	0.17595	0.00293	0.46041	0.00293	0.00293				
N261	2	1	Patch	1	1.43	1.4	0	3.69	0.02	0.01	0.388	0.000	0.379	0.005	0.003	0.540	0.530	0.000	1.660	0.020	0.010	0.14634	0.14634	0	0.44986	0.00542	0.00271				
N261	5	1	Patch	2	2.22	1.55	0.03	5.56	0.05	0.01	0.399	0.005	0.279	0.009	0.002	1.040	0.610	0.020	2.340	0.050	0.010	0.18705	0.18705	0.00306	0.42086	0.00899	0.00018				
N261	6	1	Patch	2	3.25	2.27	0.02	6.54	0.02	0	0.512	0.003	0.347	0.003	0.000	1.580	0.920	0.010	3.660	0.020	0.000	0.24159	0.24159	0.00153	0.55963	0.00306	0				
N261	7	1	Patch	2	2.28	3.1	0.02	6.58	0.05	0.01	0.347	0.003	0.471	0.008	0.002	1.020	1.270	0.020	3.330	0.050	0.010	0.15502	0.15502	0.00304	0.50608	0.0076	0.00152				
N261	8	1	Patch	2	1.96	2.21	0.02	5.79	0.07	0.02	0.339	0.003	0.382	0.012	0.003	0.680	0.860	0.020	2.090	0.060	0.020	0.11744	0.11744	0.00345	0.36097	0.01036	0.00345				
N261	13	1	Patch	2	3.87	2.37	0.02	7.19	0.01	0.01	0.538	0.003	0.330	0.001	0.001	1.800	0.990	0.010	3.870	0.010	0.010	0.25035	0.25035	0.00139	0.53825	0.00139	0.00139				
N261	14	1	Patch	2	3.83	3.33	0.01	8.19	0.02	0.01	0.468	0.001	0.407	0.002	0.001	1.680	1.410	0.010	4.500	0.020	0.010	0.20513	0.20513	0.00122	0.54945	0.00244	0.00122				
N261	15	1	Patch	2	2.34	2.15	0.01	5.67	0.04	0.02	0.413	0.002	0.379	0.007	0.004	1.010	0.910	0.010	2.580	0.040	0.020	0.17813	0.17813	0.00176	0.45503	0.00705	0.00353				
N261	19	1	Patch	4	5.7	3.54	0.02	10.8	0.08	0.01	0.528	0.002	0.328	0.007	0.001	2.780	1.630	0.010	5.710	0.070	0.010	0.25741	0.25741	0.00093	0.5287	0.00648	0.00093				
N261	20	1	Patch	4	7.82	5.56	0.02	15.05	0.03	0.01	0.520	0.001	0.369	0.002	0.001	3.810	2.710	0.020	8.550	0.030	0.010	0.25316	0.25316	0.00133	0.56811	0.00199	0.00066				
N261	21	1	Patch	4	6.84	6.58	0.02	14.98	0.02	0.01	0.457	0.001	0.439	0.001	0.001	3.490	3.140	0.020	8.690	0.020	0.010	0.23298	0.23298	0.00134	0.58011	0.00134	0.00067				
N261	22	1	Patch	4	5.16	6.4	0.02	12.86	0.06	0.01	0.401	0.002	0.498	0.005	0.001	2.460	2.940	0.020	6.930	0.050	0.010	0.19129	0.19129	0.00156	0.53888	0.00389	0.00078				
N261	23	1	Patch	4	2.84	3.73	0.03	7.86	0.16	0.08	0.361	0.004	0.475	0.020	0.010	1.330	1.470	0.020	3.710	0.150	0.070	0.16921	0.16921	0.00254	0.47201	0.01908	0.00891				
N261	29	1	Patch	4	6.63	4.4	0.02	12.76	0.04	0.01	0.520	0.002	0.345	0.003	0.001	3.250	2.130	0.020	6.880	0.040	0.010	0.2547	0.2547	0.00157	0.53918	0.00313	0.00078				
N261	30	1	Patch	4	7.49	6.07	0.03	15.25	0.01	0.01	0.491	0.002	0.398	0.001	0.001	3.730	2.960	0.020	8.820	0.010	0.010	0.24459	0.24459	0.00131	0.57836	0.00066	0.00066				
N261	31	1	Patch	4	6.06	6.8	0.03	14.41	0.05	0.01	0.421	0.002	0.472	0.003	0.001	3.100	3.180	0.020	8.140	0.040	0.010	0.20888	0.20888	0.00139	0.56489	0.00276	0.00069				
N261	32	1	Patch	4	3.87	5.16	0.03	10.19	0.11	0.05	0.380	0.003	0.506	0.011	0.005	1.800	2.220	0.020	5.150	0.100	0.050	0.17664	0.17664	0.00196	0.5054	0.00981	0.00491				
N261	128	1	Patch	4	1.39	1.31	0.01	3.48	0.01	0.01	0.399	0.003	0.376	0.003	0.003	0.530	0.480	0.000	1.670	0.010	0.000	0.1523	0.1325	0	0.47989	0.00287	0				
N261	130	1	Patch	1	1.55	1.01	0.01	3.28	0.02	0.01	0.473	0.003	0.308	0.006	0.003	0.590	0.380	0.010	1.440	0.020	0.010	0.17988	0.17988	0.00305	0.43902	0.0061	0.00305				
N261	133	1	Patch	1	2.04	1.71	0.02	5.09	0.05	0.01	0.401	0.004	0.336	0.010	0.002	0.810	0.690	0.020	2.140	0.050	0.010	0.15914	0.15914	0.00393	0.42043	0.00982	0.00196				
N261	134	1	Patch	2	3.52	2.86	0.02	7.44	0.02	0	0.473	0.003	0.384	0.003	0.000	1.690	1.170	0.020	4.090	0.020	0.000	0.21505	0.21505	0.00069	0.54973	0.00269	0				
N261	135	1	Patch	2	3.68	2.98	0.01	7.72	0.02	0.01	0.477	0.001	0.386	0.003	0.001	1.620	1.240	0.010	4.280	0.020	0.010	0.20984	0.20984	0.0013	0.5544	0.00259	0.0013				
N261	136	1	Patch	2	2.87	1.63	0.02	6.11	0.04	0.01	0.470	0.003	0.267	0.007	0.002	1.310	0.670	0.020	2.740	0.030	0.010	0.21444	0.21444	0.00327	0.44845	0.00491	0.00164				
N261	141	1	Patch	2	2.56	2.17	0.02	5.99	0.04	0.01	0.427	0.003	0.362	0.007	0.002	1.130	0.900	0.020	2.910	0.040	0.010	0.18865	0.18865	0.00334	0.40581	0.00668	0.00167				
N261	142	1	Patch	2	4.02	3.14	0.02	7.91	0.01	0	0.508	0.001	0.397	0.001	0.000	1.780	1.380	0.010	4.550	0.010	0.000	0.22503	0.22503	0.00126	0.57522	0.00126	0				
N261	143	1	Patch	2	2.98	2.41	0.02	6.6	0.04	0.02	0.452	0.003	0.365	0.006	0.003	1.280	1.040	0.010	3.300	0.030	0.020	0.19394	0.19394	0.00152	0.5	0.00455	0.00033				
N261	147	1	Patch	2	3.02	3.91	0.04	8.38	0.1	0.04	0.360	0.005	0.467	0.012	0.005	1.480	1.650	0.020	4.300	0.100	0.030	0.17661	0.17661	0.00239	0.51313	0.01193	0.00358				
N261	148	1	Patch	4	5.42	5.89	0.03	13.07	0.01	0.03	0.415	0.002	0.451	0.001	0.002	2.490	2.730	0.020	7.130	0.010	0.020	0.19051	0.19051	0.00153	0.54552	0.00077	0.00153				
N261	149	1	Patch	4	7.05	5.08	0.04	13.88	0.03	0.01	0.508	0.003	0.366	0.002	0.001	3.400	2.360	0.040	7.760	0.030	0.010	0.24496	0.24496	0.00288	0.55908	0.00216	0.00072				
N261	150	1	Patch	4	6.81	4.26	0.02	12.55	0.04	0.01	0.543	0.002	0.339	0.003	0.001	3.170	1.920	0.010	6.730	0.040	0.010	0.25259	0.25259	0.0008	0.53625	0.00319	0.0008				
N261	151	1	Patch	4	5.16	3.13	0.02	9.65	0.08	0.03	0.535	0.002	0.324	0.008	0.003	2.380	1.420	0.010	4.920	0.080	0.030	0.24663	0.24663	0.00104	0.50984	0.00829	0.00311				
N261	157	1	Patch	4	3.99	4.87	0.02	10.42	0.06	0.02	0.383	0.002	0.467	0.006	0.002	1.930	2.260	0.020	5.630	0.060	0.020	0.18522	0.18522	0.00192	0.54031	0.00576	0.00192				
N261	158	1	Patch	4	6.45	6	0.04	14.28	0.01	0.01	0.452	0.003	0.420	0.001	0.001	3.100	2.810	0.030	7.850	0.010	0.010	0.21709	0.21709	0.0021	0.54972	0.0007	0.0007				
N261	159	1	Patch	4	7.2	4.5	0.04	13.19	0.04	0.01	0.546	0.003	0.341	0.003	0.001	3.470	2.050	0.030	7.370	0.040	0.010	0.26308	0.26308	0.00227	0.55876	0.00303	0.00076				
N261	160	1	Patch	4	6.32	3.93	0.01	11.62	0.05	0.01	0.544	0.001	0.338	0.004	0.001	3.960	1.800	0.010	6.180	0.050	0.010	0.25473	0.25473	0.00086	0.53184	0.0043	0.00086				

■ QTM1 N261 High channel MIMO

											Max Ratio															Max Ratio					
											0.551	0.005	0.468	0.013	0.007											0.266	0.266	0.003	0.617	0.012	0.007
N261	128	0	1	Patch	2	3.9	3.29	0.02	7.24	0.04	0.02	0.539	0.003	0.454	0.006	0.003	1.530	1.310	0.020	3.440	0.040	0.020	0.21133	0.21133	0.00276	0.47514	0.00552	0.00276			
N261	130	2	1	Patch	2	3.99	3.26	0.02	7.45	0.08	0.02	0.536	0.003	0.438	0.011	0.003	1.530	1.280	0.010	3.360	0.070	0.020	0.20537	0.20537	0.00174	0.45101	0.0094	0.00268			
N261	133	5	1	Patch	2	5.55	3.35	0.06	12.16	0.13	0.04	0.456	0.005	0.290	0.011	0.003	2.370	1.410	0.030	5.280	0.130	0.040	0.1949	0.1949	0.00247	0.43421	0.0069	0.00329			
N261	134	6	1	Patch	4	8.41	6.01	0.04	15.68	0.05	0.02	0.536	0.003	0.383	0.003	0.001	4.020	2.470	0.030	9.410	0.050	0.010	0.25638	0.25638	0.00191	0.60013	0.0319	0.00024			
N261	135	7	1	Patch	4	6.63	7.05	0.04	15.06	0.09	0.03	0.440	0.003	0.468	0.006	0.002	2.950	3.160	0.030	8.570	0.090	0.030	0.19588	0.19588	0.00199	0.56906	0.0598	0.00191			
N261	136	8	1	Patch	4	5.65	5.26	0.05	12.96	0.14	0.05	0.436	0.004	0.406	0.011	0.004	2.520	2.310	0.040	5.420	0.130	0.050	0.19444	0.19444	0.00309	0.48121	0.0103	0.00386			
N261	141	13	1	Patch	4	8.32	4.65	0.06	15.11	0.07	0.04	0.551	0.004	0.308	0.005	0.003	3.730	2.980	0.050	7.710	0.070	0.030	0.24686	0.24686	0.00331	0.51026	0.0463	0.00191			
N261	142	14	1	Patch	4	8.84	7.17	0.02	17.39	0.03	0.02	0.508	0.001	0.412	0.002	0.001	4.250	2.070	0.020	10.170	0.030	0.010	0.24439	0.24439	0.00115	0.58482	0.0173	0.00058			
N261	143	15	1	Patch	4	5.67	5.11	0.05	12.88	0.08	0.05	0.440	0.004	0.397	0.006	0.004	2.380	1.960	0.030	6.280	0.080	0.040	0.18478	0.18478	0.00233	0.48758	0.0062	0.00311			
N261	147	19	1	Patch	8	10.29	9.77	0.11	23.39	0.21	0.08	0.440	0.005	0.418	0.009	0.003	5.020	4.010	0.070	11.580	0.210	0.070	0.21462	0.21462	0.00299	0.49508	0.0898	0.00299			
N261	148	20	1	Patch	8	15.36	12.67	0.08	31.64	0.07	0.05	0.485	0.003	0.400	0.002	0.002	7.560	6.040	0.060	18.970	0.070	0.040	0.23894	0.23894	0.0019	0.59956	0.0221	0.00126			
N261	149	21	1	Patch	8	17.33	13.48	0.07	33.62	0.09	0.02	0.515	0.002	0.401	0.003	0.001	8.950	6.560	0.060	20.760	0.080	0.020	0.26621	0.26621	0.00178	0.61749	0.0238	0.00059			
N261	150	22	1	Patch	8	12.4	11.5	0.06	27.17	0.14	0.04	0.455	0.002	0.422	0.005	0.001	5.970	3.500	0.050	15.710	0.130	0.040	0.21892	0.21892	0.00183	0.57609	0.0477	0.00147			
N261	151	23	1	Patch	8	10.14	9.55	0.06	23.35	0.3	0.17	0.434	0.003	0.409	0.013	0.007	4.810	3.390	0.050	11.080	0.270	0.160	0.206	0.206	0.00214	0.47452	0.0156	0.00685			
N261	157	29	1	Patch	8	11.41	10.43	0.07	24.85	0.12	0.05	0.459	0.003	0.420	0.005	0.002	5.700	4.650	0.050	12.930	0.120	0.040	0.22938	0.22938	0.00201	0.52032	0.0483	0.00161			
N261	158	30	1	Patch	8	17.17	13.53	0.07	33.79	0.04	0.04	0.508	0.002	0.400	0.001	0.001	8.750	6.620	0.060	20.720	0.040	0.030	0.25895	0.25895	0.00178	0.6132	0.0118	0.00089			
N261	159	31	1	Patch	8	16.12	13.16	0.07	32.53	0.1	0.02	0.496	0.002	0.405	0.003	0.001	8.090	6.240	0.060	19.530	0.090	0.020	0.24869	0.24869	0.00184	0.60037	0.0277	0.00161			
N261	160	32	1	Patch	8	10.85	10.8	0.05	24.22	0.2	0.11	0.448	0.002	0.446	0.008	0.005	5.070	4.620	0.040	11.750	0.180	0.100	0.20933	0.20933	0.00165	0.48144	0.0743	0.00431			

■ QTM0 N260 LOW channel SISO

						Max Ratio												Max Ratio											
						0.420	0.001	0.516	0.014	0.009													0.211	0.262	0.580	0.001	0.013	0.008	
n260 low ch (37GHz)						4cm2 PD(W/m2) at 2mm evaluation surfaces @6dbm												4cm2 PD(W/m2) at 3mm evaluation surfaces @6dbm											
						relative phase worst PD for MIMO												relative phase worst PD for MIMO											
						Ratio												Ratio											
						Front / (worst surface)	Right / (worst surface)	back / (worst surface)	TOP / (worst surface)	Bottom / (worst surface)	Front / (worst surface)	Right / (worst surface)	back / (worst surface)	TOP / (worst surface)	Bottom / (worst surface)	Front / (worst surface)	Right / (worst surface)	back / (worst surface)	TOP / (worst surface)	Bottom / (worst surface)	Front / (worst surface)	Right / (worst surface)	back / (worst surface)	TOP / (worst surface)	Bottom / (worst surface)				
Band	Beam_ID	Ant module	Ant Type		Num. of ant	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom
N260	1	0	Patch		1	1.15	1.2	3.71	0	0.02	0.01	0.310	0.000	0.323	0.005	0.003	0.410	0.400	1.510	0.000	0.020	0.010	0.11051	0.10782	0.40701	0	0.00539	0.0027	
N260	3	0	Patch		1	1.72	1.33	4.83	0	0.02	0.02	0.356	0.000	0.275	0.004	0.004	0.670	0.410	2.000	0.000	0.020	0.020	0.13872	0.08489	0.41408	0	0.00414	0.00414	
N260	4	0	Patch		1	1.27	1.87	4.89	0	0.02	0.01	0.260	0.000	0.382	0.004	0.002	0.380	0.620	2.060	0.000	0.020	0.010	0.07777	0.12679	0.42127	0	0.00409	0.00204	
N260	5	0	Patch		2	0.87	1.37	3.6	0	0.02	0.01	0.242	0.000	0.381	0.006	0.003	0.280	0.420	1.470	0.000	0.020	0.010	0.07778	0.11667	0.40833	0	0.00556	0.00278	
N260	10	0	Patch		2	2.23	3.15	8.54	0	0.03	0.05	0.261	0.000	0.369	0.004	0.006	0.910	1.370	3.490	0.000	0.030	0.040	0.10656	0.16042	0.40867	0	0.00351	0.00468	
N260	11	0	Patch		2	3.06	3.22	9.61	0	0.06	0.03	0.318	0.000	0.335	0.006	0.003	1.360	1.490	4.070	0.000	0.050	0.020	0.14152	0.15505	0.42352	0	0.0052	0.00208	
N260	12	0	Patch		2	2.36	2.5	7.72	0	0.01	0.04	0.306	0.000	0.324	0.001	0.005	1.120	1.170	3.350	0.000	0.010	0.040	0.14508	0.15155	0.43394	0	0.0013	0.00518	
N260	13	0	Patch		2	2.21	2.89	8.98	0	0.06	0.03	0.246	0.000	0.322	0.007	0.003	0.740	1.070	3.000	0.000	0.060	0.030	0.08241	0.11915	0.33408	0	0.00668	0.00334	
N260	17	0	Patch		2	2.94	2.33	8.5	0	0.06	0.02	0.346	0.000	0.274	0.007	0.002	1.310	0.980	3.480	0.000	0.050	0.020	0.15142	0.11529	0.40941	0	0.00588	0.00235	
N260	18	0	Patch		2	2.07	3.41	7.19	0	0.02	0.01	0.288	0.000	0.474	0.003	0.001	0.900	1.560	3.750	0.000	0.020	0.010	0.12517	0.21697	0.52156	0	0.00278	0.00139	
N260	19	0	Patch		2	2.5	2.29	8.72	0	0.02	0.04	0.287	0.000	0.263	0.002	0.005	1.020	0.830	2.940	0.000	0.020	0.040	0.11697	0.09518	0.33716	0	0.00229	0.00459	
N260	25	0	Patch		4	4.59	5.25	15.03	0.01	0.02	0.12	0.305	0.001	0.349	0.001	0.008	1.860	2.180	6.350	0.000	0.020	0.110	0.12375	0.14504	0.42249	0	0.00135	0.00732	
N260	26	0	Patch		4	5.07	6.02	14.21	0.01	0.14	0.01	0.357	0.001	0.424	0.010	0.001	2.420	2.910	7.230	0.010	0.140	0.010	0.1703	0.20479	0.5088	0.0007	0.00985	0.0007	
N260	27	0	Patch		4	4.39	4.39	10.45	0	0.05	0.05	0.420	0.000	0.420	0.005	0.005	2.210	2.000	5.940	0.000	0.040	0.040	0.21148	0.19139	0.56841	0	0.00363	0.00383	
N260	28	0	Patch		4	4.57	6.38	13.67	0.01	0.02	0.11	0.334	0.001	0.467	0.001	0.008	2.230	3.110	7.100	0.010	0.020	0.100	0.16313	0.22751	0.51939	0.00073	0.00146	0.00732	
N260	29	0	Patch		4	4.52	4.66	15.73	0.01	0.13	0.05	0.287	0.001	0.296	0.008	0.003	1.650	1.730	5.550	0.000	0.110	0.040	0.1049	0.10998	0.35283	0	0.00699	0.00254	
N260	34	0	Patch		4	5.04	4.64	15.18	0.01	0.21	0.01	0.332	0.001	0.306	0.014	0.001	2.130	1.860	6.320	0.000	0.200	0.010	0.14032	0.12253	0.41634	0	0.01318	0.00066	
N260	35	0	Patch		4	4.65	5.72	12.14	0.01	0.05	0.01	0.383	0.001	0.471	0.004	0.001	2.360	2.840	6.850	0.010	0.050	0.010	0.1944	0.23394	0.56425	0.00082	0.00412	0.00082	
N260	36	0	Patch		4	4.23	5.95	11.92	0.01	0.01	0.05	0.355	0.001	0.499	0.001	0.004	2.070	2.910	6.780	0.010	0.050	0.010	0.17366	0.24413	0.56879	0.00084	0.00088	0.00419	
N260	37	0	Patch		1	1.75	5.74	14.75	0.01	0.02	0.13	0.322	0.001	0.389	0.001	0.009	2.130	2.600	6.870	0.000	0.020	0.120	0.14441	0.17627	0.46576	0	0.00136	0.00814	
N260	129	0	Patch		1	1.23	1.61	4.05	0	0.02	0.01	0.304	0.000	0.398	0.005	0.002	0.430	0.560	1.630	0.000	0.010	0.010	0.10617	0.13827	0.40247	0	0.00247	0.00047	
N260	131	0	Patch		2	1.05	1.85	4.47	0	0.02	0.01	0.235	0.000	0.414	0.004	0.002	0.320	0.680	1.880	0.000	0.020	0.010	0.07159	0.15213	0.43208	0	0.00447	0.00224	
N260	132	0	Patch		2	1.4	1.19	3.93	0	0.02	0.01	0.356	0.000	0.303	0.005	0.003	0.500	0.390	1.700	0.000	0.020	0.010	0.12723	0.09924	0.43257	0	0.00509	0.00254	
N260	133	0	Patch		2	0.94	0.93	3.29	0	0.01	0.01	0.286	0.000	0.283	0.003	0.003	0.330	0.120	1.240	0.000	0.010	0.010	0.1003	0.09422	0.3769	0	0.00304	0.00304	
N260	138	0	Patch		2	2.46	2.71	8.6	0	0.02	0.04	0.286	0.000	0.315	0.002	0.005	0.820	1.100	2.950	0.000	0.020	0.040	0.09535	0.12791	0.34302	0	0.00233	0.00465	
N260	139	0	Patch		2	2.22	3.23	7.29	0	0.06	0.01	0.305	0.000	0.443	0.008	0.001	0.910	1.520	3.530	0.000	0.050	0.010	0.12483	0.2085	0.48422	0	0.00686	0.00137	
N260	140	0	Patch		2	2.28	3.44	7.68	0	0.02	0.02	0.297	0.000	0.448	0.003	0.003	1.040	1.580	3.680	0.000	0.020	0.020	0.13542	0.20573	0.47917	0	0.0026	0.0026	
N260	141	0	Patch		2	2.22	2.91	8.56	0	0.05	0.03	0.259	0.000	0.340	0.006	0.004	0.810	1.190	2.860	0.000	0.050	0.030	0.09463	0.13902	0.33411	0	0.00584	0.00305	
N260	145	0	Patch		2	2.03	1.8	6.99	0	0.06	0	0.290	0.000	0.258	0.009	0.000	0.860	0.770	2.500	0.000	0.060	0.000	0.12303	0.11016	0.35765	0	0.00858	0	
N260	146	0	Patch		2	2.58	2.82	6.8	0	0.02	0.02	0.379	0.000	0.415	0.003	0.003	1.150	1.220	3.560	0.000	0.020	0.020	0.16912	0.17941	0.52353	0	0.00294	0.00294	
N260	147	0	Patch		4	2.42	2.31	7.5	0	0.04	0.03	0.323	0.000	0.308	0.005	0.004	1.050	0.930	3.100	0.000	0.040	0.020	0.14	0.124	0.41333	0	0.00533	0.00267	
N260	153	0	Patch		4	4.77	4.8	13.96	0.01	0.03	0.11	0.342	0.001	0.344	0.002	0.008	1.870	1.860	5.890	0.010	0.020	0.100	0.13395	0.13324	0.42192	0.00072	0.00143	0.00716	
N260	154	0	Patch		4	4	5.56	11.98	0.01	0.13	0.03	0.334	0.001	0.464	0.011	0.003	1.990	2.770	6.230	0.000	0.120	0.020	0.16611	0.23122	0.52003	0	0.01002	0.00167	
N260	155	0	Patch		4	4.11	4.58	10.4	0.01	0.06	0.05	0.395	0.001	0.440	0.006	0.005	2.070	2.230	5.610	0.010	0.060	0.040	0.19904	0.21442	0.53942	0.00096	0.00577	0.00385	
N260	156	0	Patch		4	5.39	5.71	13.4	0.01	0.03	0.05	0.402	0.001	0.426	0.002	0.004	2.600	2.780	7.150	0.010	0.030	0.050	0.19403	0.20746	0.53358	0.00075	0.00224	0.00373	
N260	157	0	Patch		4	3.92	4.6	14.44	0.01	0.12	0.04	0.271	0.001	0.319	0.008	0.003	1.560	1.700	4.920	0.000	0.110	0.040	0.10803	0.11773	0.34072	0	0.00762	0.00277	
N260	162	0	Patch		4	3.84	4.89	13.81	0.01	0.17	0.03	0.278	0.001	0.354	0.012	0.002	1.690	2.330	5.760	0.000	0.160	0.030	0.12238	0.16872	0.41709	0	0.01159	0.00217	
N260	163	0	Patch		4	3.79	5.49	10.63	0.01	0.07	0.01	0.357	0.001	0.516	0.007	0.001	1.900	2.790	6.030	0.000	0.070	0.010	0.17874	0.26246	0.56726	0	0.00659	0.00094	
N260	164	0	Patch		4	4.83	6	12.28	0.01	0.03	0.04	0.393	0.001	0.489	0.002	0.003	2.340	2.980	7.120	0.010	0.030	0.030	0.19055	0.24267	0.5798	0.00081	0.00244	0.00244	
N260	165	0	Patch		4	4.85	4.87	14.23	0.01	0.04	0.1	0.341	0.001	0.342	0.003	0.007	2.060	2.160	6.090	0.010	0.030	0.090	0.14476	0.15179	0.42797	0	0.00701	0.00211	

■ QTM1 N260 LOW channel SISO

										Max Ratio															Max Ratio					
										0.448	0.002	0.451	0.014	0.007											0.227	0.224	0.002	0.559	0.014	0.007
N260 low ch. (37GHz)										4cm2 PD(Win2) at 2mm evaluation surfaces @6dbm										4cm2 PD(Win2) at 2mm evaluation surfaces @6dbm										
										relative phase word PD for MIMO										relative phase word PD for MIMO										
										Ratio										Ratio										
										Front / (joint surface)	Left (joint surface)	back (joint surface)	TOP (joint surface)	Bottom (joint surface)	Front / (joint surface)	Left (joint surface)	back (joint surface)	TOP (joint surface)	Bottom (joint surface)	Front / (joint surface)	Left (joint surface)	back (joint surface)	TOP (joint surface)	Bottom (joint surface)	Front / (joint surface)	Left (joint surface)	back (joint surface)	TOP (joint surface)	Bottom (joint surface)	
Band	Beam_ID	Ant module	Ant Type	Numbers of Feeds	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom		
N260	0	1	Patch	1	1.7	1.45	0	4.5	0.02	0.01	0.378	0.000	0.322	0.004	0.002	0.62	0.43	0	1.94	0.02	0.01	0.13778	0.09556	0	0.43111	0.00444	0.00203			
N260	2	1	Patch	1	1.44	1.64	0	4.35	0.02	0.01	0.331	0.000	0.377	0.005	0.002	0.43	0.54	0	1.94	0.02	0.01	0.09885	0.12414	0	0.44598	0.0046	0.0023			
N260	6	1	Patch	2	2.55	2.78	0.01	7.9	0.05	0.02	0.323	0.001	0.352	0.006	0.003	1.06	1.17	0.01	3.3	0.05	0.02	0.13418	0.1481	0.00127	0.41772	0.00633	0.00253			
N260	7	1	Patch	2	2.41	2.88	0	6.73	0.05	0	0.358	0.000	0.428	0.007	0.000	1.05	1.29	0	3.58	0.05	0	0.15602	0.19168	0	0.53195	0.00743	0.00274			
N260	8	1	Patch	2	2.16	2.92	0	7.6	0.01	0.04	0.284	0.000	0.384	0.001	0.005	0.93	1.39	0	3.21	0.01	0.03	0.12237	0.18289	0	0.42237	0.00132	0.00395			
N260	9	1	Patch	2	2.58	2.58	0.01	7.85	0.05	0.02	0.329	0.001	0.329	0.006	0.003	0.91	1.04	0	2.84	0.05	0.02	0.11592	0.13248	0	0.36178	0.00637	0.00255			
N260	14	1	Patch	2	2.69	2.45	0.01	8.03	0.07	0.01	0.335	0.001	0.305	0.009	0.001	1.19	0.94	0.01	3.13	0.07	0	0.14819	0.11706	0.00125	0.38979	0.00872	0			
N260	15	1	Patch	2	3.06	3.15	0.01	7.98	0.03	0.03	0.383	0.001	0.395	0.004	0.004	1.27	1.4	0.01	3.84	0.03	0.03	0.15915	0.17544	0.00125	0.4812	0.00376	0.00376			
N260	16	1	Patch	2	3.14	3.08	0.01	9.73	0.07	0.02	0.323	0.001	0.317	0.007	0.002	1.05	1.11	0.01	3.54	0.06	0.02	0.10791	0.11408	0.00103	0.36382	0.00617	0.00206			
N260	20	1	Patch	4	4.95	5.07	0.01	13.66	0.12	0.03	0.362	0.001	0.371	0.009	0.002	1.89	1.82	0.01	5.92	0.11	0.03	0.13836	0.13324	0.00073	0.43338	0.00805	0.0022			
N260	21	1	Patch	4	5.66	5.28	0.02	13.06	0.12	0.01	0.433	0.002	0.404	0.009	0.001	2.77	2.41	0.02	7.18	0.12	0.01	0.2121	0.18453	0.00153	0.54977	0.00919	0.00077			
N260	22	1	Patch	4	4.44	5.11	0.01	11.42	0.03	0.04	0.389	0.001	0.447	0.003	0.004	1.99	2.56	0.01	6.06	0.03	0.04	0.17426	0.22417	0.00088	0.53065	0.00263	0.0035			
N260	23	1	Patch	4	4.88	5.44	0.01	13.37	0.02	0.1	0.365	0.001	0.407	0.001	0.001	2.16	2.38	0.01	6.5	0.02	0.09	0.16156	0.17801	0.00075	0.48616	0.0015	0.00673			
N260	24	1	Patch	4	4.82	5.03	0.01	13.91	0.15	0.02	0.347	0.001	0.362	0.011	0.001	1.8	1.75	0.01	5.7	0.14	0.02	0.1294	0.12581	0.00072	0.40978	0.01006	0.00144			
N260	30	1	Patch	4	5.4	5.34	0.02	12.99	0.18	0.02	0.416	0.002	0.411	0.014	0.002	2.44	2.29	0.01	6.78	0.17	0.02	0.18784	0.17625	0.00077	0.52194	0.01309	0.00154			
N260	31	1	Patch	4	4.72	5.09	0.01	11.94	0.07	0.01	0.395	0.001	0.426	0.006	0.001	2.1	2.22	0.01	6.67	0.06	0.01	0.17588	0.18593	0.00084	0.55863	0.00503	0.00084			
N260	32	1	Patch	4	4.85	5.71	0.01	12.65	0.01	0.06	0.383	0.001	0.451	0.001	0.005	2.2	2.77	0.01	6.75	0.01	0.06	0.17391	0.21897	0.00079	0.53396	0.00079	0.00474			
N260	33	1	Patch	4	4.65	5.2	0.01	13.7	0.05	0.08	0.339	0.001	0.380	0.004	0.006	1.71	1.89	0.01	5.8	0.05	0.08	0.12482	0.13796	0.00073	0.42336	0.00365	0.00584			
N260	128	1	Patch	1	1.24	1.53	0	4.05	0.03	0.01	0.306	0.000	0.378	0.007	0.002	0.36	0.56	0	1.75	0.02	0.01	0.08889	0.13827	0	0.4321	0.00494	0.00247			
N260	130	1	Patch	1	1.35	1.29	0	3.72	0.02	0.01	0.363	0.000	0.347	0.005	0.003	0.47	0.38	0	1.63	0.02	0.01	0.12634	0.10215	0	0.43817	0.00538	0.00269			
N260	134	1	Patch	2	2.25	2.71	0.01	7.92	0.05	0.02	0.284	0.001	0.342	0.006	0.003	0.92	1.11	0	2.86	0.05	0.02	0.11616	0.14015	0	0.36111	0.00631	0.00253			
N260	135	1	Patch	2	2.62	2.81	0.01	6.75	0.04	0.01	0.388	0.001	0.416	0.006	0.001	1.1	1.24	0	3.49	0.04	0.01	0.16296	0.1837	0	0.51704	0.00593	0.00148			
N260	136	1	Patch	2	2.51	1.89	0	6.51	0.01	0.03	0.386	0.000	0.290	0.002	0.005	1.2	0.85	0	2.84	0.01	0.03	0.18433	0.13057	0	0.43625	0.00154	0.00461			
N260	137	1	Patch	2	2.33	2.61	0	8.09	0.07	0.01	0.288	0.000	0.323	0.009	0.001	0.79	0.88	0	2.75	0.06	0.01	0.09765	0.10878	0	0.33993	0.00742	0.00124			
N260	142	1	Patch	2	2.62	2.84	0.01	7.64	0.05	0.01	0.343	0.001	0.372	0.007	0.001	1.15	1.17	0	3.44	0.05	0.01	0.15052	0.15314	0	0.45026	0.00654	0.00131			
N260	143	1	Patch	2	2.34	2.76	0	6.55	0.01	0.02	0.357	0.000	0.421	0.002	0.003	1.07	1.23	0	3.22	0.01	0.02	0.16336	0.18779	0	0.4816	0.00153	0.00305			
N260	144	1	Patch	2	2.33	2.31	0	7.03	0.04	0.03	0.331	0.000	0.329	0.006	0.004	0.9	0.89	0	2.72	0.04	0.03	0.12802	0.1266	0	0.38891	0.00569	0.00427			
N260	148	1	Patch	4	4.58	4.86	0.01	12.43	0.17	0.01	0.368	0.001	0.391	0.014	0.001	1.92	1.92	0.01	5.85	0.17	0.01	0.15447	0.15447	0.0008	0.47064	0.01368	0.0008			
N260	149	1	Patch	4	4.65	5.19	0.02	11.68	0.09	0.01	0.398	0.002	0.444	0.008	0.001	2.19	2.58	0.01	6.32	0.09	0.01	0.1875	0.22089	0.00086	0.5411	0.00771	0.00086			
N260	150	1	Patch	4	4.6	4.27	0.01	10.27	0.02	0.04	0.448	0.001	0.416	0.002	0.004	2.33	2.07	0.01	5.68	0.02	0.03	0.22687	0.20156	0.00079	0.55307	0.00195	0.00292			
N260	151	1	Patch	4	4.7	4.65	0.01	12.67	0.03	0.09	0.371	0.001	0.367	0.002	0.007	2.14	2.14	0.01	5.87	0.03	0.08	0.16885	0.1688	0.00079	0.4633	0.00237	0.00631			
N260	152	1	Patch	4	4.26	4.74	0.01	13.09	0.16	0.02	0.325	0.001	0.362	0.012	0.002	1.65	1.72	0.01	5.3	0.15	0.02	0.12605	0.13134	0.00076	0.40489	0.01146	0.00153			
N260	158	1	Patch	4	4.81	4.83	0.01	12.3	0.17	0.01	0.391	0.001	0.393	0.014	0.001	2.18	2.16	0.01	6.12	0.16	0	0.17724	0.17561	0.00081	0.49756	0.01301	0			
N260	159	1	Patch	4	4.37	4.4	0.01	10.42	0.05	0.02	0.419	0.001	0.422	0.005	0.002	2	2.19	0.01	5.63	0.05	0.02	0.19194	0.21017	0.00096	0.54031	0.0048	0.00192			
N260	160	1	Patch	4	5.1	4.59	0.01	11.51	0.03	0.06	0.443	0.001	0.399	0.003	0.005	2.53	2.24	0.01	6.13	0.02	0.06	0.21981	0.19461	0.00087	0.53258	0.00174	0.00521			
N260	161	1	Patch	4	4.08	4.69	0.01	13.11	0.11	0.05	0.311	0.001	0.358	0.008	0.004	1.66	1.62	0.01	4.93	0.1	0.04	0.12662	0.12357	0.00076	0.37605	0.00763	0.00305			

■ QTM1 N260 LOW channel MIMO

										Max Ratio															Max Ratio					
										0.467	0.002	0.495	0.015	0.007											0.234	0.223	0.002	0.600	0.015	0.007
N260	128	0	1	Patch	2	3.35	3.51	0.01	9.1	0.06	0.03	0.368	0.001	0.386	0.007	0.003	1.080	1.200	0.010	4.130	0.060	0.030	0.11868	0.13187	0.0011	0.45385	0.00659	0.0033		
N260	130	2	1	Patch	2	3.06	3.2	0.01	8.64	0.07	0.04	0.354		0.370	0.008		1.000	0.990	0.040	4.000	0.060	0.040	0.11574	0.11458	0.0011	0.46298	0.00694	0.0043		
N260	134	6	1	Patch	4	4.83	5.47	0.01	14	0.13	0.05	0.345		0.391	0.009	0.004	1.750	2.090	0.010	6.000	0.120	0.050	0.125	0.14903	0.0007	0.42857	0.00857	0.0031		
N260	135	7	1	Patch	4	5.35	6.48	0.02	14.19	0.14	0.02	0.377	0.001	0.457	0.010	0.001	2.050	2.810	0.010	7.950	0.140	0.020	0.14447	0.14929	0.0007	0.56025	0.00985	0.0047		
N260	136	8	1	Patch	4	6.03	5.98	0.01	15.63	0.02	0.1	0.386	0.001	0.383	0.001	0.006	2.910	2.960	0.010	8.040	0.020	0.100	0.18618	0.18938	0.0006	0.5144	0.01126	0.0054		
N260	137	9	1	Patch	4	5.89	6.08	0.01	16.18	0.04	0.1	0.364	0.001	0.360	0.011	0.002	2.150	2.410	0.010	6.130	0.170	0.040	0.17272	0.1426	0.00059	0.36272	0.00706	0.00237		
N260	142	14	1	Patch	4	6.47	6.17	0.02	16.02	0.13	0.03	0.404	0.001	0.385	0.008	0.002	3.100	2.320	0.010	7.450	0.120	0.020	0.19351	0.14482	0.00063	0.46504	0.00749	0.00125		
N260	143	15	1	Patch	4	5.74	6.46	0.01	14.88	0.04	0.09	0.386	0.001	0.434	0.003	0.002	2.210	2.790	0.010	7.890	0.040	0.090	0.14852	0.18375	0.00067	0.53024	0.00269	0.0005		
N260	144	16	1	Patch	4	5.59	5.91	0.02	17.01	0.12	0.07	0.329	0.001	0.347	0.007	0.004	2.060	2.070	0.010	6.660	0.120	0.070	0.12111	0.12169	0.00059	0.39153	0.00728	0.00412		
N260	148	20	1	Patch	8	10.65	11.72	0.03	28.61	0.33	0.05	0.327	0.001	0.410	0.012	0.002	4.330	4.280	0.020	12.430	0.320	0.050	0.15135	0.1496	0.0007	0.43446	0.01118	0.0075		
N260	149	21	1	Patch	8	11.93	11.55	0.05	25.52	0.26	0.03	0.467	0.002	0.453	0.010	0.001	5.970	5.680	0.040	14.870	0.250	0.030	0.23393	0.22257	0.00151	0.58268	0.0098	0.00818		
N260	150	22	1	Patch	8	11.1	10.75	0.02	24.97	0.07	0.1	0.445	0.001	0.431	0.003	0.004	5.620	5.320	0.020	14.490	0.070	0.090	0.22507	0.21306	0.0008	0.5803	0.0028	0.0036		
N260	151	23	1	Patch	8	10.31	11.55	0.03	28.09	0.04	0.2	0.367	0.001	0.411	0.001	0.007	4.740	4.760	0.020	13.070	0.040	0.200	0.16874	0.16946	0.00071	0.46529	0.00412	0.00712		
N260	152	24	1	Patch	8	10.57	11.6	0.03	28.88	0.34	0.07	0.354	0.001	0.388	0.011	0.002	3.570	3.950	0.020	11.560	0.310	0.060	0.11948	0.1322	0.00067	0.38888	0.01037	0.00201		
N260	158	30	1	Patch	8	10.99	11.31	0.03	26.65	0.41	0.04	0.412	0.001	0.424	0.015	0.002	5.140	4.680	0.030	13.710	0.390	0.030	0.19287	0.15061	0.00113	0.51445	0.01463	0.0013		
N260	159	31	1	Patch	8	10.29	10.43	0.04	22.72	0.15	0.04	0.453	0.002	0.459	0.007	0.002	4.750	4.900	0.030	13.640	0.140	0.040	0.26907	0.21567	0.00132	0.60035	0.00616	0.0076		
N260	160	32	1	Patch	8	10.73	10.96	0.03	25.65	0.05	0.15	0.418	0.001	0.427	0.002	0.006	5.360	5.280	0.020	13.940	0.040	0.140	0.26897	0.20585	0.00078	0.53437	0.00156	0.00546		
N260	161	33	1	Patch	8	10.3	11.59	0.02	29.39	0.17	0.16	0.350	0.001	0.394	0.006	0.005	4.260	4.280	0.020	11.550	0.150	0.160	0.14495	0.14563	0.00068	0.39299	0.0051	0.00445		

■ QTM0 N260 Middle channel SISO

										Max Ratio										Max Ratio										
										0.392	0.001	0.511	0.013	0.007											0.193	0.251	0.574	0.001	0.012	0.006
n260 Mid ch. (38.5GHz)										4cm2 PD(W/m2) at 2mm evaluation surfaces @6dbm										4cm2 PD(W/m2) at 31mm evaluation surfaces @6dbm										
										relative phase worst PD for MIMO										relative phase worst PD for MIMO										
Band	Beam_ID	Ant module	Ant Type	Num. of antenna feeds	Ratio						Ratio						Ratio													
					Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom								
					surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm	surface 2mm/2mm		
N260	1	0	Patch	1	1.24	1.51	4.44	0	0.02	0.01	0.279	0.000	0.340	0.005	0.002	0.51	0.51	1.73	0	0.02	0.01	0.11486	0.11486	0.38964	0	0.0045	0.00225			
N260	3	0	Patch	1	1.72	1.82	5.5	0	0.02	0.02	0.313	0.000	0.331	0.004	0.004	0.6	0.61	2.44	0	0.01	0.02	0.10909	0.11091	0.44364	0	0.00182	0.00364			
N260	4	0	Patch	1	1.74	2.12	5.77	0	0.03	0.02	0.302	0.000	0.367	0.005	0.003	0.54	0.71	2.64	0	0.02	0.02	0.09359	0.12305	0.45754	0	0.00347	0.00347			
N260	5	0	Patch	2	1.1	1.48	4.32	0	0.02	0.02	0.255	0.000	0.343	0.005	0.005	0.35	0.44	1.71	0	0.02	0.01	0.08102	0.10185	0.39583	0	0.00463	0.00231			
N260	10	0	Patch	2	2.97	3.73	10.14	0	0.03	0.06	0.293	0.000	0.368	0.003	0.006	1.25	1.66	4.42	0	0.03	0.05	0.13227	0.16371	0.4359	0	0.00296	0.00493			
N260	11	0	Patch	2	3.45	4.03	11.12	0	0.05	0.03	0.310	0.000	0.362	0.004	0.003	1.52	1.8	5.05	0	0.04	0.03	0.13669	0.16187	0.45414	0	0.0036	0.0027			
N260	12	0	Patch	2	3.02	3.03	9.03	0	0.01	0.04	0.334	0.000	0.336	0.001	0.004	1.43	1.42	4.13	0	0.01	0.03	0.15386	0.15725	0.45736	0	0.00111	0.00332			
N260	13	0	Patch	2	2.91	3.45	10.84	0	0.06	0.03	0.268	0.000	0.318	0.006	0.003	1.05	1.26	4.04	0	0.05	0.02	0.09686	0.11624	0.37269	0	0.00461	0.00185			
N260	17	0	Patch	2	2.54	3.53	9.86	0	0.06	0.02	0.258	0.000	0.358	0.006	0.002	1.06	1.53	4.18	0	0.05	0.02	0.10751	0.15517	0.42394	0	0.00507	0.00203			
N260	18	0	Patch	2	2.59	3.62	8.24	0	0.04	0.03	0.314	0.000	0.439	0.005	0.004	1.17	1.61	4.27	0	0.04	0.03	0.14199	0.19539	0.5182	0	0.00485	0.00364			
N260	19	0	Patch	2	2.99	2.92	10.28	0	0.01	0.04	0.291	0.000	0.284	0.001	0.004	1.37	1.12	3.89	0	0.01	0.04	0.13327	0.10895	0.3784	0	0.00097	0.00389			
N260	25	0	Patch	4	5.87	6.13	17.56	0.01	0.02	0.1	0.334	0.001	0.349	0.001	0.006	2.61	2.6	8.01	0.01	0.02	0.09	0.14863	0.14806	0.45615	0.00057	0.00114	0.00513			
N260	26	0	Patch	4	5.82	7.13	16.03	0.01	0.17	0.01	0.363	0.001	0.445	0.011	0.001	2.86	3.38	8.79	0.01	0.16	0.01	0.17842	0.21085	0.54835	0.00062	0.00986	0.0062			
N260	27	0	Patch	4	4.01	6.12	12.6	0.01	0.09	0.07	0.318	0.001	0.486	0.007	0.006	1.9	3.02	6.67	0.01	0.09	0.06	0.15079	0.23968	0.52937	0.00079	0.00944	0.00476			
N260	28	0	Patch	4	6.54	7.27	16.68	0.01	0.02	0.11	0.392	0.001	0.436	0.001	0.007	3.22	3.62	9.23	0.01	0.02	0.1	0.13905	0.21703	0.55336	0.0006	0.0012	0.006			
N260	29	0	Patch	4	4.95	5.67	18.31	0.01	0.11	0.04	0.270	0.001	0.310	0.006	0.002	2.03	2.11	6.99	0	0.1	0.04	0.11087	0.11524	0.38176	0	0.00546	0.00218			
N260	34	0	Patch	4	5.17	6.14	17.42	0.01	0.23	0.02	0.297	0.001	0.352	0.013	0.001	2.29	2.48	7.94	0	0.21	0.01	0.13146	0.13949	0.4558	0	0.01206	0.00057			
N260	35	0	Patch	4	4.56	7.18	14.04	0.01	0.08	0.03	0.325	0.001	0.511	0.006	0.002	2.26	3.52	8.06	0.01	0.08	0.03	0.16097	0.25071	0.57407	0.00071	0.0057	0.00214			
N260	36	0	Patch	4	4.99	6.67	14.31	0.01	0.05	0.08	0.349	0.001	0.466	0.003	0.006	2.38	3.33	7.97	0.01	0.05	0.07	0.16632	0.2327	0.55695	0.0007	0.00349	0.00489			
N260	37	0	Patch	4	6.49	6.8	17.73	0.01	0.03	0.11	0.366	0.001	0.384	0.002	0.006	3.08	3.14	8.78	0.01	0.03	0.1	0.13732	0.17171	0.49521	0.00056	0.00169	0.00564			
N260	129	0	Patch	1	1.52	1.69	4.7	0	0.03	0.01	0.323	0.000	0.360	0.006	0.002	0.56	0.57	1.71	0	0.03	0.01	0.11915	0.12128	0.37447	0	0.00638	0.00213			
N260	131	0	Patch	2	1.38	2.25	5.24	0	0.02	0.01	0.263	0.000	0.429	0.004	0.002	0.41	0.83	2.43	0	0.02	0.01	0.07824	0.1584	0.46374	0	0.00382	0.00191			
N260	132	0	Patch	2	1.41	1.64	4.66	0	0.02	0.01	0.303	0.000	0.352	0.004	0.002	0.48	0.53	2.1	0	0.02	0.01	0.103	0.11373	0.45064	0	0.00425	0.00215			
N260	133	0	Patch	2	1.07	1.07	3.82	0	0.01	0.02	0.280	0.000	0.280	0.003	0.005	0.4	0.34	1.36	0	0.01	0.01	0.10471	0.08901	0.35602	0	0.00026	0.00262			
N260	138	0	Patch	2	3.23	3.29	10.14	0	0.02	0.03	0.319	0.000	0.324	0.002	0.003	1.17	1.43	3.89	0	0.01	0.03	0.11538	0.14103	0.38363	0	0.00099	0.00296			
N260	139	0	Patch	2	2.7	4	8.95	0	0.04	0.01	0.302	0.000	0.447	0.004	0.001	1.12	1.9	4.52	0	0.04	0.01	0.12514	0.21229	0.50503	0	0.00447	0.00112			
N260	140	0	Patch	2	2.56	4.28	8.89	0	0.03	0.02	0.288	0.000	0.481	0.003	0.002	1.23	1.95	4.32	0	0.02	0.02	0.13836	0.21935	0.48594	0	0.00225	0.00225			
N260	141	0	Patch	2	3.19	3.1	10.09	0.01	0.05	0.02	0.316	0.001	0.307	0.005	0.002	1.18	1.21	3.76	0	0.05	0.02	0.11695	0.11992	0.37265	0	0.00496	0.00198			
N260	145	0	Patch	2	2.39	2.42	8.6	0	0.06	0	0.278	0.000	0.281	0.007	0.000	1.1	1.03	3.22	0	0.06	0	0.12791	0.11977	0.37442	0	0.00698	0			
N260	146	0	Patch	2	2.78	4.08	8.61	0	0.03	0.01	0.323	0.000	0.474	0.003	0.001	1.22	1.78	4.57	0	0.03	0.01	0.1417	0.20674	0.53078	0	0.00348	0.00116			
N260	147	0	Patch	4	2.46	3.13	8.69	0	0.04	0.03	0.283	0.000	0.360	0.005	0.003	1.07	1.36	3.69	0	0.03	0.02	0.12313	0.1565	0.42463	0	0.00345	0.00203			
N260	153	0	Patch	4	4.97	5.98	15.93	0.01	0.03	0.1	0.312	0.001	0.375	0.002	0.006	2.11	2.53	6.98	0.01	0.02	0.09	0.13245	0.15882	0.43817	0.00063	0.00126	0.00565			
N260	154	0	Patch	4	5.68	6.41	14.97	0.01	0.12	0.02	0.379	0.001	0.428	0.008	0.001	2.8	3.21	8.07	0.01	0.12	0.02	0.18704	0.21443	0.53908	0.00067	0.00802	0.00134			
N260	155	0	Patch	4	3.61	5.77	11.61	0.01	0.08	0.05	0.311	0.001	0.497	0.007	0.004	1.68	2.87	6.14	0.01	0.08	0.04	0.1447	0.2472	0.52885	0.00086	0.00689	0.00345			
N260	156	0	Patch	4	6.07	7.67	16.02	0.01	0.04	0.06	0.379	0.001	0.479	0.002	0.004	3	3.73	8.68	0.01	0.04	0.05	0.18727	0.23283	0.54182	0.00062	0.0025	0.00312			
N260	157	0	Patch	4	4.84	5.15	16.69	0.01	0.1	0.03	0.290	0.001	0.309	0.006	0.002	1.94	2.02	6.09	0.01	0.09	0.03	0.11624	0.12103	0.36488	0.0006	0.00539	0.0018			
N260	162	0	Patch	4	5.11	5.39	15.97	0.01	0.17	0.02	0.320	0.001	0.338	0.011	0.001	2.37	2.66	7.04	0.01	0.15	0.02	0.1484	0.16656	0.44083	0.00063	0.00939	0.00125			
N260	163	0	Patch	4	4.52	5.97	12.68	0.01	0.11	0.02	0.356	0.001	0.471	0.009	0.002	2.2	3.08	7.05	0.01	0.11	0.02	0.1735	0.2429	0.55599	0.00079	0.00868	0.00158			
N260	164	0	Patch	4	5.48	7.43	14.76	0.01	0.05	0.03	0.371	0.001	0.503	0.003	0.002	2.72	3.65	8.34	0.01	0.05	0.03	0.18428	0.24729	0.56504	0.00068	0.00339	0.00203			
N260	165	0	Patch	4	5.13	6.35	16.2	0.01	0.04	0.08	0.317	0.001	0.392	0.002	0.005	2.39	2.95	7.31	0.01	0.04	0.04	0.17453	0.1821	0.45123	0.00062	0.00247	0.00243			

■ QTM1 N260 Middle channel SISO

					Max Ratio										Max Ratio															
					0.470	0.002	0.480	0.011	0.005											0.233	0.233	0.001	0.580	0.011	0.005					
N260 Mid ch. (38.5GHz)										4cm2 PD(Win2) at 2mm evaluation surfaces @6dbm										4cm2 PD(Win2) at 2mm evaluation surfaces @6dbm										
										relative phase worst PD for MIMO										relative phase worst PD for MIMO										
										Ratio										Ratio										
										Front / (joint surface)	Left (joint surface)	Back (joint surface)	TOP (joint surface)	Bottom (joint surface)	Front / (joint surface)	Back (joint surface)	Left (joint surface)	Right (joint surface)	Top (joint surface)	Bottom (joint surface)	Front / (joint surface)	Back (joint surface)	Left (joint surface)	Right (joint surface)	Top (joint surface)	Bottom (joint surface)				
Band	Beam_ID	Ant module	Ant Type	Num of Feed	Num of Feeds	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom	
N260	0	1	Patch	1	1	1.7	1.91	0	5.03	0.02	0.01	0.338	0.000	0.380	0.004	0.002	0.61	0.61	0	2.37	0.02	0.01	0.12127	0.12127	0	0.47117	0.00398	0.00199		
N260	2	1	Patch	1	1	1.73	1.62	0	4.75	0.02	0.01	0.364	0.000	0.341	0.004	0.002	0.53	0.52	0	2.16	0.02	0.01	0.11158	0.10947	0	0.45474	0.00421	0.00211		
N260	6	1	Patch	2	2	3.19	2.8	0.01	8.89	0.06	0.02	0.359	0.001	0.315	0.007	0.002	1.36	1.19	0.01	3.84	0.05	0.01	0.15298	0.13386	0.00112	0.43195	0.00562	0.00112		
N260	7	1	Patch	2	2	2.83	2.52	0.01	6.84	0.06	0	0.414	0.001	0.368	0.009	0.000	1.23	1.12	0.01	3.58	0.06	0	0.17982	0.16374	0.00146	0.52339	0.00877	0		
N260	8	1	Patch	2	2	2.75	3.15	0	8.81	0.01	0.03	0.312	0.000	0.358	0.001	0.003	1.22	1.47	0	3.87	0.01	0.03	0.13848	0.16686	0	0.43927	0.00114	0.00341		
N260	9	1	Patch	2	2	2.7	3.37	0.01	9.19	0.05	0.02	0.294	0.001	0.367	0.005	0.002	0.94	1.4	0	3.65	0.04	0.02	0.10229	0.15234	0	0.39717	0.00435	0.00218		
N260	14	1	Patch	2	2	3.06	3.2	0.01	8.97	0.06	0	0.341	0.001	0.357	0.007	0.000	1.41	1.3	0	4.1	0.06	0	0.15719	0.14493	0	0.45708	0.00669	0		
N260	15	1	Patch	2	2	3.38	3.87	0.01	9.07	0.04	0.03	0.373	0.001	0.427	0.004	0.003	1.47	1.69	0	4.59	0.03	0.02	0.16207	0.18633	0	0.50606	0.00331	0.00221		
N260	16	1	Patch	2	2	3.35	3.2	0	10.32	0.04	0.02	0.325	0.000	0.310	0.004	0.002	1.09	1.24	0	4.18	0.04	0.02	0.10562	0.12016	0	0.40504	0.00388	0.00194		
N260	20	1	Patch	4	4	5.57	5.77	0.01	15.28	0.11	0.04	0.365	0.001	0.378	0.007	0.003	2.26	2.1	0.01	7.12	0.11	0.03	0.14791	0.13743	0.00065	0.46597	0.00654	0.00196		
N260	21	1	Patch	4	4	6.38	6.61	0.02	15.14	0.12	0.01	0.421	0.001	0.437	0.008	0.001	3.04	3.04	0.01	8.78	0.11	0.01	0.20079	0.20079	0.00066	0.57992	0.00727	0.00066		
N260	22	1	Patch	4	4	5.35	5.56	0.01	13.06	0.05	0.04	0.430	0.001	0.426	0.004	0.003	2.43	2.6	0.01	6.9	0.04	0.04	0.18606	0.19908	0.00077	0.52833	0.00306	0.00306		
N260	23	1	Patch	4	4	5.11	6.56	0.01	15.05	0.01	0.08	0.440	0.001	0.436	0.001	0.005	2.26	3.01	0.01	7.77	0.01	0.08	0.15017	0.2	0.00066	0.51628	0.00066	0.00532		
N260	24	1	Patch	4	4	5.55	5.61	0.01	15.46	0.12	0.03	0.359	0.001	0.363	0.008	0.002	2.25	2.02	0.01	6.97	0.11	0.02	0.14554	0.13066	0.00065	0.45084	0.00712	0.00129		
N260	30	1	Patch	4	4	6.75	6.34	0.02	15.39	0.15	0.02	0.439	0.001	0.412	0.010	0.001	3.06	2.76	0.02	8.51	0.15	0.02	0.19883	0.17934	0.00113	0.55296	0.00975	0.0013		
N260	31	1	Patch	4	4	4.54	5.5	0.02	12.37	0.09	0.02	0.367	0.002	0.445	0.007	0.002	2.05	2.35	0.01	6.67	0.08	0.02	0.16572	0.18998	0.00081	0.53921	0.00647	0.00162		
N260	32	1	Patch	4	4	5.51	7.23	0.01	15.05	0.02	0.06	0.366	0.001	0.480	0.001	0.004	2.52	3.5	0.01	8.39	0.02	0.05	0.16744	0.23256	0.00066	0.55748	0.00133	0.00332		
N260	33	1	Patch	4	4	4.99	5.78	0.01	15.2	0.04	0.07	0.328	0.001	0.380	0.003	0.005	1.7	2.22	0.01	6.89	0.04	0.07	0.11184	0.14605	0.00066	0.45329	0.00263	0.00461		
N260	128	1	Patch	1	1	1.56	1.65	0	4.45	0.02	0.01	0.351	0.000	0.371	0.004	0.002	0.49	0.58	0	2.1	0.02	0.01	0.11011	0.13034	0	0.47191	0.00449	0.00225		
N260	130	1	Patch	1	1	1.3	1.67	0	4.25	0.02	0.01	0.306	0.000	0.393	0.005	0.002	0.41	0.54	0	1.9	0.02	0.01	0.09647	0.12706	0	0.44706	0.00471	0.00235		
N260	134	1	Patch	2	2	3.19	2.73	0.01	9.19	0.04	0.02	0.347	0.001	0.297	0.004	0.002	1.35	1.02	0.01	3.53	0.04	0.02	0.1469	0.11099	0.00109	0.38411	0.00435	0.00218		
N260	135	1	Patch	2	2	2.91	3.38	0	7.89	0.06	0.01	0.369	0.000	0.428	0.008	0.001	1.22	1.44	0	4.06	0.06	0.01	0.15463	0.18251	0	0.51458	0.0076	0.00127		
N260	136	1	Patch	2	2	2.71	2.54	0	7.44	0.01	0.02	0.364	0.000	0.341	0.001	0.003	1.27	1.22	0	3.57	0.01	0.02	0.1707	0.16398	0	0.47984	0.00134	0.00269		
N260	137	1	Patch	2	2	3.15	2.91	0.01	9.25	0.06	0.01	0.341	0.001	0.315	0.006	0.001	1.09	1.14	0	3.69	0.06	0.01	0.11784	0.12324	0	0.39892	0.00649	0.00108		
N260	142	1	Patch	2	2	2.82	3.29	0	8.6	0.06	0.02	0.328	0.000	0.383	0.007	0.002	1.2	1.38	0	3.92	0.06	0.01	0.13953	0.16047	0	0.45581	0.00698	0.00116		
N260	143	1	Patch	2	2	3.01	2.7	0.01	7.6	0.01	0.04	0.396	0.001	0.355	0.001	0.005	1.36	1.13	0.01	3.67	0.01	0.04	0.17895	0.14868	0.00132	0.48289	0.00132	0.00526		
N260	144	1	Patch	2	2	2.45	3.03	0.01	8.28	0.04	0.02	0.296	0.001	0.366	0.005	0.002	0.92	1.26	0	3.2	0.04	0.02	0.11111	0.15217	0	0.38647	0.00483	0.00242		
N260	148	1	Patch	4	4	4.94	6.05	0.01	14.58	0.16	0.01	0.339	0.001	0.415	0.011	0.001	1.98	2.6	0.01	7.11	0.15	0.01	0.13358	0.17833	0.00069	0.48765	0.01029	0.00069		
N260	149	1	Patch	4	4	5.45	6.1	0.02	13.61	0.12	0.01	0.400	0.001	0.448	0.009	0.001	2.5	2.97	0.01	7.33	0.12	0.01	0.18369	0.21822	0.00073	0.53857	0.00882	0.00073		
N260	150	1	Patch	4	4	5.05	4.99	0.01	11.73	0.02	0.04	0.431	0.001	0.425	0.002	0.003	2.49	2.43	0.01	6.53	0.02	0.04	0.21228	0.20716	0.00085	0.55669	0.00172	0.00341		
N260	151	1	Patch	4	4	5.86	4.98	0.01	14.27	0.02	0.07	0.411	0.001	0.349	0.001	0.005	2.69	2.26	0.01	7.19	0.02	0.07	0.18851	0.15837	0.00077	0.50285	0.0014	0.00491		
N260	152	1	Patch	4	4	4.68	5.53	0.01	14.54	0.12	0.02	0.322	0.001	0.380	0.008	0.001	1.85	2.23	0.01	6.31	0.11	0.02	0.12724	0.15337	0.00069	0.43398	0.00757	0.00138		
N260	158	1	Patch	4	4	5.04	6.55	0.02	14.66	0.16	0.01	0.344	0.001	0.447	0.011	0.001	2.22	3.04	0.01	7.57	0.16	0.01	0.15143	0.20737	0.00068	0.51637	0.01091	0.00068		
N260	159	1	Patch	4	4	4.89	4.57	0.02	11.39	0.08	0.03	0.429	0.002	0.401	0.007	0.003	2.21	2.19	0.01	5.86	0.08	0.03	0.19403	0.19227	0.00088	0.51449	0.00702	0.00263		
N260	160	1	Patch	4	4	6.59	5.28	0.01	14.01	0.03	0.07	0.470	0.001	0.377	0.002	0.005	3.27	2.5	0.01	7.86	0.03	0.06	0.2334	0.17844	0.00071	0.56103	0.00214	0.00428		
N260	161	1	Patch	4	4	4.77	5.17	0.01	14.52	0.08	0.03	0.329	0.001	0.356	0.006	0.002	1.96	1.8	0.01	5.89	0.07	0.03	0.13499	0.12397	0.00069	0.40565	0.00482	0.0002		

■ QTM0 N260 High channel SISO

										Max Ratio						Max Ratio											
										0.408	0.002	0.468	0.010	0.006		0.201	0.231	0.555	0.001	0.010	0.006						
n260 high ch. (95.95GHz)										4cm2 PD(Win2) at 2mm evaluation surfaces @6dbm						4cm2 PD(Win2) at 31mm evaluation surfaces @6dbm											
										Ratio						Ratio											
										relative phase worst PD for MIMO						relative phase worst PD for MIMO											
Band	Beam_ID	Ant module	Ant Type	Num of Feeds	Numers of Feeds	Front	Back	Left	Right	Top	Bottom	Front (worst surface)	Right (worst surface)	Back (worst surface)	TOP (worst surface)	Bottom (worst surface)	Front (worst surface)	back (worst surface)	Left (worst surface)	Right (worst surface)	TOP (worst surface)	Bottom (worst surface)					
N260	1	0	Patch	1	1.19	1.64	4.62	0	0.02	0.01	0.258	0.000	0.355	0.004	0.002	0.45	0.54	1.8	0	0.02	0.01	0.0974	0.11688	0.38961	0	0.00433	0.00216
N260	3	0	Patch	1	1.56	2.06	5.37	0	0.01	0.01	0.291	0.000	0.384	0.002	0.002	0.52	0.76	2.37	0	0.01	0.01	0.09683	0.14153	0.44134	0	0.00186	0.00186
N260	4	0	Patch	1	1.9	1.66	5.23	0	0.02	0.01	0.363	0.000	0.317	0.004	0.002	0.66	0.52	2.38	0	0.02	0.01	0.1262	0.09943	0.45507	0	0.00382	0.00191
N260	5	0	Patch	2	1.3	1.25	4.26	0	0.01	0.01	0.305	0.000	0.293	0.002	0.002	0.41	0.39	1.64	0	0.01	0.01	0.09624	0.09155	0.38498	0	0.00235	0.00235
N260	10	0	Patch	2	3.39	2.87	9.7	0.01	0.02	0.04	0.349	0.001	0.296	0.002	0.004	1.54	1.29	4.14	0	0.02	0.04	0.15876	0.13299	0.4268	0	0.00206	0.00412
N260	11	0	Patch	2	3.68	3.51	10.37	0	0.03	0.02	0.355	0.000	0.338	0.003	0.002	1.52	1.52	4.77	0	0.03	0.02	0.14658	0.14658	0.45998	0	0.00289	0.00193
N260	12	0	Patch	2	2.88	3.14	9.08	0.01	0.02	0.04	0.317	0.001	0.346	0.002	0.004	1.32	1.41	4.01	0.01	0.02	0.03	0.14537	0.15529	0.44163	0.0011	0.0022	0.0033
N260	13	0	Patch	2	3.33	3.06	10.71	0.01	0.04	0.02	0.311	0.001	0.286	0.004	0.002	1.21	1.06	3.99	0	0.04	0.02	0.11298	0.09897	0.37255	0	0.00379	0.00187
N260	17	0	Patch	2	2.28	3.88	9.98	0	0.04	0.01	0.228	0.000	0.389	0.004	0.001	0.93	1.73	4.2	0	0.04	0.01	0.09319	0.17335	0.42084	0	0.00401	0.001
N260	18	0	Patch	2	2.84	2.74	7.27	0.01	0.03	0.03	0.391	0.001	0.377	0.004	0.004	1.29	1.17	3.8	0	0.03	0.03	0.17744	0.16094	0.5227	0	0.00413	0.00413
N260	19	0	Patch	2	2.69	3.25	10.32	0	0.01	0.04	0.261	0.000	0.315	0.001	0.004	1.29	1.19	3.81	0	0.01	0.04	0.125	0.11531	0.36919	0	0.00097	0.00388
N260	25	0	Patch	4	5.84	5.5	16.52	0.01	0.03	0.07	0.354	0.001	0.333	0.002	0.004	2.68	2.35	7.65	0.01	0.03	0.06	0.16223	0.14225	0.46308	0.00061	0.00182	0.00363
N260	26	0	Patch	4	6	6.65	15.55	0.01	0.16	0.01	0.386	0.001	0.428	0.010	0.001	2.88	3.09	8.43	0.01	0.15	0.01	0.18521	0.19871	0.54211	0.00064	0.00965	0.00664
N260	27	0	Patch	4	4.16	5.92	12.65	0.02	0.06	0.05	0.329	0.002	0.468	0.005	0.004	1.88	2.85	6.66	0.01	0.06	0.05	0.14862	0.2253	0.52646	0.00079	0.00474	0.00395
N260	28	0	Patch	4	6.22	6.52	16.2	0.01	0.03	0.1	0.384	0.001	0.402	0.002	0.006	3.01	3.14	8.54	0.01	0.03	0.09	0.1858	0.19383	0.52716	0.00062	0.00185	0.00556
N260	29	0	Patch	4	4.77	5.63	17.51	0.01	0.07	0.03	0.272	0.001	0.322	0.004	0.002	2.05	2.18	7.04	0.01	0.06	0.03	0.11708	0.1245	0.40206	0.00057	0.00343	0.00171
N260	34	0	Patch	4	5.06	6.5	16.86	0.01	0.15	0.01	0.300	0.001	0.386	0.009	0.001	2.31	2.7	8	0	0.14	0.01	0.13701	0.16014	0.4745	0	0.0083	0.00059
N260	35	0	Patch	4	5.36	6.54	14.03	0.01	0.06	0.02	0.382	0.001	0.466	0.004	0.001	2.56	3.24	7.76	0.01	0.06	0.02	0.18247	0.23093	0.5531	0.00071	0.00428	0.00143
N260	36	0	Patch	4	4.98	5.83	13.92	0.01	0.06	0.08	0.358	0.001	0.419	0.004	0.006	2.34	2.74	7.33	0.01	0.06	0.08	0.1681	0.19684	0.52656	0.00072	0.00431	0.00575
N260	37	0	Patch	1	6.13	6.26	16.93	0.01	0.05	0.08	0.362	0.001	0.370	0.003	0.005	2.89	2.82	8.25	0.01	0.04	0.07	0.1707	0.16657	0.4875	0.00059	0.00236	0.00143
N260	129	0	Patch	1	1.86	1.42	5.04	0	0.02	0.01	0.369	0.000	0.282	0.004	0.002	0.68	0.44	1.97	0	0.02	0.01	0.13492	0.0873	0.39087	0	0.00397	0.00198
N260	131	0	Patch	2	1.68	1.79	4.93	0	0.01	0.01	0.341	0.000	0.363	0.002	0.002	0.57	0.63	2.3	0	0.01	0	0.11562	0.12779	0.46653	0	0.00208	0
N260	132	0	Patch	2	1.22	1.71	4.41	0	0.01	0	0.277	0.000	0.388	0.002	0.000	0.38	0.61	1.97	0	0.01	0	0.08617	0.13832	0.44671	0	0.00227	0
N260	133	0	Patch	2	0.96	1.2	3.71	0	0.01	0.01	0.259	0.000	0.323	0.003	0.003	0.35	0.38	1.35	0	0.01	0.01	0.09434	0.10243	0.36388	0	0.0027	0.00027
N260	138	0	Patch	2	3.65	2.97	10.07	0.01	0.02	0.03	0.362	0.001	0.295	0.002	0.003	1.36	1.31	3.89	0	0.02	0.02	0.13505	0.13009	0.3863	0	0.00199	0.00199
N260	139	0	Patch	2	2.64	3.7	8.54	0	0.03	0.01	0.309	0.000	0.433	0.004	0.001	1.1	1.69	4.23	0	0.03	0.01	0.12881	0.19789	0.49532	0	0.00351	0.00117
N260	140	0	Patch	2	2.97	3.72	8.72	0.01	0.02	0.02	0.341	0.001	0.427	0.002	0.002	1.4	1.59	4.37	0	0.02	0.02	0.16055	0.18234	0.50115	0	0.00229	0.00229
N260	141	0	Patch	2	3.94	2.45	10.27	0.01	0.05	0.01	0.384	0.001	0.239	0.005	0.001	1.51	0.91	3.96	0.01	0.04	0.01	0.14703	0.08861	0.38559	0.00097	0.00389	0.00097
N260	145	0	Patch	2	2.31	2.7	8.82	0.01	0.05	0.01	0.262	0.001	0.306	0.006	0.001	1.08	1.13	3.36	0	0.05	0	0.12245	0.12812	0.38095	0	0.00567	0
N260	146	0	Patch	2	3.01	3.67	8.44	0	0.03	0.02	0.357	0.000	0.435	0.004	0.002	1.3	1.59	4.34	0	0.03	0.01	0.15403	0.18839	0.51422	0	0.00355	0.00118
N260	147	0	Patch	4	2.14	3.21	8.41	0	0.02	0.02	0.254	0.000	0.382	0.002	0.002	0.96	1.44	3.48	0	0.02	0.02	0.11415	0.17122	0.41379	0	0.00238	0.00238
N260	153	0	Patch	4	4.79	5.95	15.24	0.01	0.02	0.07	0.314	0.001	0.330	0.001	0.005	2.05	2.58	7.04	0.01	0.02	0.06	0.13451	0.16929	0.46194	0.00066	0.00131	0.00394
N260	154	0	Patch	4	5.85	5.68	14.86	0.01	0.11	0.02	0.394	0.001	0.382	0.007	0.001	2.91	2.78	7.76	0.01	0.1	0.02	0.19583	0.18708	0.52221	0.00067	0.00673	0.00135
N260	155	0	Patch	4	4.37	6.05	13.03	0.01	0.07	0.03	0.335	0.001	0.464	0.005	0.002	1.97	2.97	8.83	0.01	0.07	0.02	0.15119	0.22794	0.52417	0.00077	0.00537	0.00153
N260	156	0	Patch	4	5.93	6.56	15.02	0.01	0.04	0.05	0.395	0.001	0.437	0.003	0.003	2.94	3.1	7.89	0.01	0.04	0.04	0.19574	0.20639	0.52523	0.00067	0.00266	0.00266
N260	157	0	Patch	4	5	4.68	16.21	0.01	0.05	0.02	0.308	0.001	0.289	0.003	0.001	2.01	1.94	6.17	0.01	0.05	0.02	0.124	0.11968	0.38063	0.00062	0.00308	0.00123
N260	162	0	Patch	4	5.48	4.82	15.74	0.01	0.13	0.01	0.348	0.001	0.306	0.008	0.001	2.62	2.36	6.95	0.01	0.11	0.01	0.16645	0.14994	0.44155	0.00064	0.00699	0.00064
N260	163	0	Patch	4	4.96	5.8	13.65	0.01	0.11	0.02	0.363	0.001	0.425	0.008	0.001	2.42	2.85	7.23	0.01	0.1	0.02	0.17729	0.20879	0.52967	0.00073	0.00733	0.00147
N260	164	0	Patch	4	5.72	6.27	14.02	0.01	0.05	0.04	0.408	0.001	0.447	0.004	0.003	2.82	2.96	7.78	0.01	0.05	0.03	0.20114	0.21113	0.55492	0.00071	0.00357	0.00214
N260	165	0	Patch	4	5.11	6.09	15.66	0.01	0.02	0.06	0.326	0.001	0.389	0.001	0.004	2.4	2.85	7.3	0.01	0.02	0.05	0.15326	0.18199	0.46616	0.00064	0.00128	0.00319

■ QTM0 N260 High channel MIMO

										Max Ratio															Max Ratio					
										0.437	0.001	0.498	0.016	0.008											0.208	0.243	0.545	0.001	0.015	0.007
N260	129	1	0	Patch	2	3.98	4.08	9.94	0.01	0.08	0.03	0.295	0.001	0.410	0.008	0.003	1.44	1.47	4.13	0.01	0.08	0.03	0.14487	0.14789	0.55499	0.00101	0.00803	0.00203		
N260	131	3	0	Patch	2	4.58	5.41	10.92	0.02	0.03	0.03	0.419	0.001	0.495	0.003	0.003	1.56	2.01	5.12	0	0.03	0.03	0.14286	0.18407	0.45880	0.001	0.00725	0.00181		
N260	132	4	0	Patch	2	4.41	5	10.09	0	0.06	0.03	0.437	0.000	0.496	0.006	0.003	1.49	1.77	4.79	0	0.05	0.02	0.14767	0.17542	0.47472	0	0.04906	0.00498		
N260	133	5	0	Patch	2	3.4	3.78	8.47	0.01	0.03	0.05	0.401	0.001	0.446	0.004	0.006	1.17	1.28	3.28	0	0.03	0.04	0.13813	0.15112	0.38725	0	0.0354	0.00472		
N260	138	10	0	Patch	4	6.99	6.35	17.69	0.02	0.06	0.1	0.395	0.001	0.359	0.003	0.006	2.89	2.66	8.85	0.01	0.05	0.09	0.16337	0.15037	0.50028	0.00057	0.00283	0.00506		
N260	139	11	0	Patch	4	6.65	7.25	19.46	0.01	0.11	0.04	0.393	0.001	0.373	0.006	0.002	3.09	3.25	9.5	0.01	0.1	0.1	0.18379	0.16701	0.48818	0.00051	0.00514	0.00209		
N260	140	12	0	Patch	4	7.77	9.28	18.65	0.02	0.06	0.07	0.417	0.001	0.498	0.003	0.004	3.83	4.53	9.19	0.01	0.06	0.06	0.20536	0.2429	0.49276	0.00054	0.00332	0.00322		
N260	141	13	0	Patch	4	6.77	5.75	18.15	0.01	0.16	0.05	0.369	0.001	0.317	0.009	0.003	2.74	2.11	8.14	0.01	0.15	0.04	0.15096	0.11625	0.44848	0.00055	0.0026	0.002		
N260	145	17	0	Patch	4	4.85	6.68	16.39	0.01	0.14	0.03	0.296	0.001	0.408	0.009	0.002	2.08	2.87	8.07	0.01	0.13	0.02	0.12691	0.17511	0.34237	0.00061	0.00739	0.00121		
N260	146	18	0	Patch	4	7.02	7.35	16.62	0.01	0.11	0.06	0.422	0.001	0.442	0.007	0.004	2.97	3.16	8.22	0.01	0.1	0.05	0.1787	0.19013	0.49458	0.0006	0.00603	0.00201		
N260	147	19	0	Patch	4	5.08	6.76	16.46	0.01	0.05	0.08	0.309	0.001	0.411	0.003	0.005	2.3	2.8	8.13	0.01	0.05	0.07	0.13973	0.17011	0.43931	0.00061	0.00304	0.00425		
N260	153	25	0	Patch	8	11.96	12.26	33.61	0.03	0.05	0.18	0.356	0.001	0.365	0.001	0.05	5.87	5.74	15.68	0.02	0.04	0.15	0.17465	0.17078	0.49331	0.0006	0.01019	0.00446		
N260	154	26	0	Patch	8	13.23	13.8	31.43	0.04	0.49	0.05	0.421	0.001	0.439	0.016	0.002	5.54	7.13	17.12	0.03	0.47	0.04	0.20808	0.22685	0.5447	0.00095	0.01495	0.0027		
N260	155	27	0	Patch	8	12.11	12.74	30.5	0.04	0.17	0.11	0.368	0.001	0.418	0.006	0.004	5.09	6.46	14.72	0.03	0.16	0.11	0.16689	0.21818	0.48263	0.00088	0.00552	0.00361		
N260	156	28	0	Patch	8	12.27	15.48	33.46	0.03	0.1	0.26	0.367	0.001	0.463	0.003	0.008	6.45	7.6	17.53	0.02	0.1	0.23	0.17227	0.22714	0.52391	0.0009	0.00299	0.00687		
N260	157	29	0	Patch	8	10.89	11.52	35.94	0.03	0.21	0.08	0.304	0.001	0.321	0.006	0.002	4.88	4.83	14.3	0.02	0.18	0.06	0.13616	0.13477	0.399	0.00056	0.00501	0.00167		
N260	162	34	0	Patch	8	12.08	13.23	35.25	0.03	0.29	0.04	0.343	0.001	0.375	0.008	0.001	5.73	6.06	15.68	0.02	0.27	0.03	0.16255	0.17191	0.44848	0.00057	0.00746	0.00085		
N260	163	35	0	Patch	8	12.12	14.4	31.98	0.04	0.21	0.06	0.379	0.001	0.450	0.007	0.002	5.61	7.22	16.74	0.04	0.2	0.05	0.17542	0.25257	0.53243	0.00125	0.00625	0.00156		
N260	164	36	0	Patch	8	12.84	13.38	32.59	0.04	0.15	0.17	0.394	0.001	0.411	0.005	0.005	6.01	6.51	16.99	0.03	0.15	0.16	0.18441	0.19975	0.57113	0.00092	0.0062	0.00491		
N260	165	37	0	Patch	8	12.48	13.16	33.54	0.03	0.08	0.17	0.372	0.001	0.392	0.002	0.005	6.11	6.17	17.01	0.03	0.07	0.15	0.18217	0.18396	0.52016	0.00089	0.00209	0.00447		

■ QTM1 N260 High channel SISO

										Max Ratio															Max Ratio					
										0.482	0.002	0.507	0.014	0.009											0.217	0.248	0.002	0.546	0.014	0.009
N260 high ch. (40GHz)										4cm2 PD(Win2) at 2mm evaluation surfaces @6dbm										4cm2 PD(Win2) at 2mm evaluation surfaces @6dbm										
										relative phase worst PD for MIMO										relative phase worst PD for MIMO										
										Ratio					Ratio															
										Front / (joint surface)	Left (joint surface)	back (joint surface)	TOP (joint surface)	Bottom (joint surface)	Ratio					Front / (joint surface)	Left (joint surface)	back (joint surface)	TOP (joint surface)	Bottom (joint surface)						
Band	Beam_ID	Ant module	Ant Type	Num of Feed	Numers of Feeds	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom	Front	Back	Left	Right	Top	Bottom	
N260	0	1	Patch	1	1	1.27	1.52	0	3.86	0.02	0.01	0.329	0.000	0.394	0.005	0.003	0.45	0.5	0	1.7	0.02	0.01	0.11658	0.12953	0	0.44041	0.00518	0.00259		
N260	2	1	Patch	1	1	1.41	1.06	0	3.56	0.01	0.01	0.396	0.000	0.298	0.003	0.003	0.46	0.36	0	1.54	0.01	0.01	0.12921	0.10112	0	0.43258	0.00281	0.00281		
N260	6	1	Patch	2	2	2.71	2.07	0.01	7.36	0.04	0.01	0.368	0.001	0.281	0.005	0.001	1.19	0.91	0	2.92	0.04	0.01	0.16168	0.12364	0	0.39674	0.00543	0.00136		
N260	7	1	Patch	2	1	1.83	1.49	0.01	4.47	0.04	0	0.409	0.002	0.333	0.009	0.000	0.79	0.65	0.01	2.12	0.04	0	0.17673	0.14541	0.00224	0.47427	0.00895	0		
N260	8	1	Patch	2	2	2.69	2.31	0	7.43	0.01	0.02	0.362	0.000	0.311	0.001	0.003	1.12	1.02	0	3.11	0.01	0.02	0.15074	0.13728	0	0.41857	0.00135	0.00269		
N260	9	1	Patch	2	2	2.32	3.29	0.01	8.24	0.04	0.01	0.282	0.001	0.399	0.005	0.001	0.88	1.28	0	3.34	0.04	0.01	0.10687	0.15534	0	0.40534	0.00485	0.00121		
N260	14	1	Patch	2	2	2.54	3.08	0.01	7.73	0.07	0	0.329	0.001	0.398	0.009	0.000	1.15	1.16	0.01	3.43	0.07	0	0.14877	0.15006	0.00129	0.44373	0.00906	0		
N260	15	1	Patch	2	2	2.94	2.24	0.01	6.69	0.01	0.02	0.439	0.001	0.335	0.001	0.003	1.21	0.93	0	3.09	0.01	0.02	0.18087	0.13901	0	0.46188	0.00149	0.00299		
N260	16	1	Patch	2	2	2.6	2.45	0	7.84	0.03	0.01	0.332	0.000	0.313	0.004	0.001	0.92	0.92	0	3.17	0.02	0.01	0.11735	0.11735	0	0.40434	0.00255	0.00128		
N260	20	1	Patch	4	4	4.78	4.74	0.01	12.85	0.07	0.03	0.372	0.001	0.369	0.005	0.002	2	1.79	0.01	6.08	0.06	0.03	0.15564	0.1393	0.00078	0.47315	0.00467	0.00233		
N260	21	1	Patch	4	3	3.97	5.52	0.02	11.73	0.16	0.01	0.338	0.002	0.471	0.014	0.001	1.85	2.49	0.01	6.25	0.15	0.01	0.15772	0.21228	0.00085	0.53282	0.01279	0.00085		
N260	22	1	Patch	4	4	4.56	3.17	0.02	9.46	0.03	0.04	0.482	0.002	0.335	0.003	0.004	2.05	1.45	0.02	4.65	0.03	0.04	0.2167	0.15328	0.00211	0.49154	0.00317	0.00423		
N260	23	1	Patch	4	4	4.63	5.37	0.01	12.88	0.02	0.05	0.359	0.001	0.417	0.002	0.004	2.11	2.46	0.01	6.58	0.02	0.05	0.16382	0.19099	0.00078	0.51087	0.00155	0.00388		
N260	24	1	Patch	4	4	4.97	4.67	0.01	13.07	0.07	0.02	0.380	0.001	0.357	0.005	0.002	2.12	1.73	0.01	6.06	0.07	0.02	0.1622	0.13236	0.00077	0.46366	0.00536	0.00153		
N260	30	1	Patch	4	4	4.91	6.06	0.01	13.13	0.12	0.03	0.374	0.001	0.462	0.009	0.002	2.1	2.58	0.01	6.99	0.11	0.02	0.15994	0.19656	0.00076	0.53237	0.00838	0.00152		
N260	31	1	Patch	4	3	3.5	3.58	0.02	8.95	0.1	0.01	0.391	0.002	0.400	0.011	0.001	1.56	1.48	0.02	4.25	0.1	0.01	0.1743	0.16536	0.00223	0.47486	0.01117	0.00112		
N260	32	1	Patch	4	4	5.08	4.58	0.01	11.81	0.02	0.06	0.430	0.001	0.388	0.002	0.005	2.4	2.16	0.01	6.17	0.02	0.05	0.20322	0.1829	0.00085	0.52244	0.00169	0.00423		
N260	33	1	Patch	4	4	4.23	5.03	0.01	12.89	0.03	0.04	0.328	0.001	0.390	0.002	0.003	1.53	1.97	0.01	6.1	0.02	0.04	0.1187	0.15283	0.00078	0.47324	0.00135	0.0031		
N260	128	1	Patch	1	1	1.34	1.16	0	3.31	0.02	0.01	0.405	0.000	0.350	0.006	0.003	0.43	0.38	0	1.45	0.02	0.01	0.12991	0.11448	0	0.43807	0.00604	0.00302		
N260	130	1	Patch	1	1	0.89	1.38	0	3.27	0.02	0.01	0.272	0.000	0.422	0.006	0.003	0.27	0.47	0	1.46	0.02	0.01	0.08257	0.14373	0	0.44648	0.00612	0.00306		
N260	134	1	Patch	2	2	3.24	2.19	0.01	7.84	0.03	0.02	0.413	0.001	0.279	0.004	0.003	1.32	0.78	0.01	3.03	0.02	0.01	0.16837	0.09949	0.00128	0.38648	0.00255	0.00128		
N260	135	1	Patch	2	2	2.45	2.24	0.01	5.97	0.06	0.01	0.410	0.002	0.375	0.010	0.002	0.9	0.93	0	2.73	0.06	0.01	0.15075	0.15578	0	0.45729	0.01005	0.00168		
N260	136	1	Patch	2	2	1.94	2.53	0	6.17	0.01	0.02	0.314	0.000	0.410	0.002	0.003	0.88	1.16	0	2.9	0.01	0.02	0.14263	0.18801	0	0.47002	0.00162	0.00324		
N260	137	1	Patch	2	2	3.45	2.42	0.01	8.26	0.05	0.01	0.418	0.001	0.293	0.006	0.001	1.22	1.05	0	3.28	0.05	0.01	0.1477	0.12712	0	0.39709	0.00605	0.00121		
N260	142	1	Patch	2	2	2.65	2.04	0	6.62	0.06	0.01	0.400	0.000	0.308	0.009	0.002	0.93	0.81	0	2.82	0.06	0.01	0.14048	0.12236	0	0.42598	0.00906	0.00151		
N260	143	1	Patch	2	2	2.32	2.05	0.01	5.89	0.03	0.04	0.394	0.002	0.348	0.005	0.007	0.95	0.82	0.01	2.61	0.03	0.03	0.16129	0.13922	0.0017	0.44312	0.00509	0.00509		
N260	144	1	Patch	2	2	2.05	2.68	0.01	7.15	0.04	0.02	0.287	0.001	0.375	0.006	0.003	0.69	1.08	0	2.83	0.03	0.01	0.0965	0.15105	0	0.3958	0.0042	0.0014		
N260	148	1	Patch	4	4	4.64	4.87	0.01	12.3	0.1	0.01	0.377	0.001	0.396	0.008	0.001	1.65	2.09	0.01	5.93	0.1	0.01	0.13415	0.16992	0.00081	0.48211	0.00813	0.00081		
N260	149	1	Patch	4	4	5.21	3.65	0.01	10.84	0.15	0.02	0.481	0.001	0.337	0.018	0.002	2.15	1.66	0.01	5.17	0.15	0.02	0.19834	0.15314	0.00092	0.47694	0.01384	0.00185		
N260	150	1	Patch	4	4	2.61	4.16	0.01	8.21	0.02	0.07	0.318	0.001	0.507	0.002	0.009	1.23	2.04	0.01	4.27	0.02	0.07	0.14892	0.24848	0.00127	0.5201	0.00244	0.00853		
N260	151	1	Patch	4	4	5.1	4.56	0.01	12.27	0.01	0.04	0.416	0.001	0.372	0.001	0.003	2.42	2.05	0.01	6.34	0.01	0.03	0.19723	0.16707	0.00081	0.51571	0.00081	0.00244		
N260	152	1	Patch	4	4	4.25	4.72	0.01	12.35	0.08	0.01	0.344	0.001	0.382	0.006	0.001	1.74	2.01	0.01	5.47	0.07	0.01	0.14089	0.16275	0.00081	0.44291	0.00567	0.00081		
N260	158	1	Patch	4	4	4.9	5.06	0.01	12.38	0.13	0.01	0.396	0.001	0.409	0.011	0.001	1.94	2.26	0.01	6.22	0.12	0.01	0.1567	0.18255	0.00081	0.50242	0.00969	0.00081		
N260	159	1	Patch	4	4	4.14	3.14	0.02	8.93	0.11	0.02	0.464	0.002	0.352	0.012	0.002	1.56	1.49	0.01	4.08	0.11	0.02	0.17469	0.16685	0.00112	0.45689	0.01232	0.00224		
N260	160	1	Patch	4	4	4.64	4.88	0.01	11.11	0.02	0.06	0.418	0.001	0.439	0.002	0.005	2.3	2.4	0.01	6.07	0.02	0.05	0.20702	0.21602	0.0009	0.54635	0.0018	0.0045		
N260	161	1	Patch	4	4	4.43	4.43	0.01	12.32	0.05	0.02	0.360	0.001	0.360	0.004	0.002	1.94	1.71	0.01	5.24	0.04	0.01	0.15747	0.1388	0.00081	0.42532	0.00325	0.00081		

■ QTM1 N260 High channel MIMO

										Max Ratio															Max Ratio					
										0.487	0.002	0.502	0.015	0.009											0.216	0.243	0.001	0.557	0.015	0.008
N260	128	0	1	Patch	2	3.63	3.75	0.01	7.57	0.04	0.02	0.480	0.001	0.495	0.005	0.003	1.22	1.290	0	3.560	0.04	0.020	0.6116	0.17091	0.001	0.47028	0.00226	0.00294		
N260	130	2	1	Patch	2	3.29	3.61	0.01	7.38	0.04	0.02	0.446	0.001	0.489	0.005	0.003	1.05	1.250	0	3.560	0.04	0.020	0.61238	0.16981	0.001	0.48238	0.00241	0.00294		
N260	134	6	1	Patch	4	5.13	4.4	0.01	13.27	0.11	0.04	0.462	0.001	0.332	0.008	0.003	2.34	1.590	0.01	6.650	0.1	0.030	0.76794	0.11982	0.00705	0.50111	0.00479	0.00226		
N260	135	7	1	Patch	4	5.97	4.71	0.02	12.26	0.18	0.02	0.487	0.002	0.384	0.015	0.02	2.35	2.100	0.01	6.060	0.18	0.020	0.19168	0.17129	0.00080	0.49425	0.01486	0.00163		
N260	136	8	1	Patch	4	7.73	7.44	0.02	14.82	0.04	0.05	0.454	0.001	0.502	0.003	0.003	2.04	3.480	0.01	7.100	0.04	0.050	0.20513	0.23482	0.00067	0.47908	0.00727	0.00337		
N260	137	9	1	Patch	4	7.66	7.44	0.02	17.85	0.09	0.03	0.429	0.001	0.417	0.005	0.002	2.7	2.770	0.01	7.670	0.08	0.030	0.15126	0.15518	0.00056	0.42969	0.00448	0.00168		
N260	142	14	1	Patch	4	6.25	5.09	0.01	15.65	0.14	0.02	0.399	0.001	0.325	0.009	0.01	2.78	2.190	0.01	7.180	0.13	0.020	0.27764	0.13994	0.00064	0.45878	0.00381	0.00228		
N260	143	15	1	Patch	4	7.07	4.99	0.01	14.7	0.05	0.09	0.481	0.001	0.339	0.003	0.006	2.86	2.200	0.01	6.750	0.05	0.080	0.19456	0.14966	0.00068	0.45918	0.0034	0.00544		
N260	144	16	1	Patch	4	5.36	6.37	0.01	15.24	0.11	0.05	0.350	0.001	0.418	0.007	0.003	1.94	2.740	0.01	6.110	0.1	0.050	0.1273	0.17979	0.00066	0.40092	0.00656	0.00328		
N260	148	20	1	Patch	8	9.76	10.94	0.02	26.42	0.21	0.05	0.369	0.001	0.414	0.008	0.002	4.3	4.750	0.02	12.730	0.2	0.050	0.06276	0.17979	0.00066	0.41883	0.00571	0.00198		
N260	149	21	1	Patch	8	10.3	11	0.03	25.6	0.37	0.04	0.402	0.001	0.430	0.014	0.002	4.65	5.320	0.03	13.540	0.36	0.040	0.01864	0.20781	0.00011	0.52891	0.01406	0.00556		
N260	150	22	1	Patch	8	9.38	9.65	0.04	22.67	0.06	0.15	0.414	0.002	0.426	0.003	0.007	4.37	4.680	0.03	11.510	0.05	0.130	0.19277	0.20644	0.00013	0.50772	0.00221	0.00175		
N260	151	23	1	Patch	8	10.56	11.44	0.03	26.79	0.04	0.14	0.394	0.001	0.427	0.001	0.005	5.05	5.500	0.02	13.600	0.4	0.120	0.1885	0.2053	0.00075	0.50765	0.00488	0.00448		
N260	152	24	1	Patch	8	9.98	10.22	0.02	27.44	0.16	0.03	0.364	0.001	0.372	0.006	0.001	4.03	4.310	0.02	12.690	0.15	0.030	0.14687	0.15707	0.00073	0.46246	0.00547	0.00199		
N260	158	30	1	Patch	8	10.22	11.37	0.03	25.53	0.37	0.05	0.400	0.001	0.445	0.014	0.002	4.44	5.400	0.03	13.370	0.34	0.040	0.17391	0.21132	0.00118	0.5237	0.01333	0.00157		
N260	159	30	1	Patch	8	10.22	8.99	0.03	24	0.26	0.05	0.426	0.001	0.375	0.011	0.002	4.19	4.160	0.03	11.470	0.25	0.040	0.17358	0.17335	0.00125	0.47792	0.01042	0.00167		
N260	160	32	1	Patch	8	10.53	11.61	0.02	24.54	0.06	0.22	0.429	0.001	0.473	0.002	0.009	5.29	5.960	0.02	13.680	0.05	0.190	0.21557	0.24287	0.00081	0.55746	0.00204	0.00774		
N260	161	33	1	Patch	8	9.35	9.98	0.02	27.14	0.09	0.08	0.345	0.001	0.368	0.003	0.003	3.67	3.780	0.01	11.650	0.09	0.070	0.13522	0.13928	0.00073	0.42926	0.00332	0.00258		

5 Power Density Characterization

5.1 PD design target

For Qualcomm SDX55/QTM525, the total device uncertainty for mmW radio is 2.1dB.

To account for the total design related uncertainty, PD_design_target needs to be:

$$PD_design_target < PD_{regulatory_limit} \times 10^{\frac{-total\ uncertainty}{10}}$$

With FCC 4cm2-averaged PD requirement of 10 W/m2 and the declared 2.1 dB device design related uncertainty, the PD_design_target for the EUT is determined as:

$$PD_design_target = 6\ W/m^2$$

5.2 Worst-case housing influence determination

For non-metal material, the material property cannot be accurately characterized at mmW frequencies to date. The estimated material property for the device housing is used in the simulation model, which could influence the accuracy in simulation for PD amplitude quantification. Since the housing influence on PD could vary from surface to surface where the EM field propagates through, the most underestimated surface is used to quantify the worst-case housing influence for conservative assessment.

Since the mmW antenna modules are placed at different location as shown in Figure 1-3, only material/housing surrounded has impact on EM field propagation, in turn impact on power density. Therefore, only adjacent surfaces for each QTM (as listed in Table 3-2) were used to evaluate the worst-case housing influence for each frequency band. For this EUT, when comparing a simulated 4cm2-averaged PD and measured 4 cm2-averaged PD, the worst error introduced for each antenna module operating at each band when using the estimated material property in the simulation is highlighted yellow in Table 3-2. Thus, the worst-case housing influence, denoted as $\Delta min = Sim.PD - Meas.PD$, is determined as:

Table 5-1: Δmin for QTM0 and QTM1

Band	QTM	Δmin (dB)
N261	0	0.7
	1	2.2
N260	0	0.2
	1	1.2

Δmin represents the worst case where RF exposure is underestimated the most in simulation when using the estimated material property for glass/plastics of the housing. For conservative

assessment, the Δmin is used as the worst-case factor and applied to all the beams in the corresponding beam group to determine input power limits in PD char for compliance.

5.3 PD Char of the EUT

This section describes the PD Char generation that complies with the PD_design_target determined in Section 5.1 and is in compliance with the regulatory power density limit.

5.3.1 Scaling factor for SISO beams

Determine scaling factor for low, mid, high channel, $s(i)_{low_or_mid_or_high}$ by:

$$s(i)_{low_or_mid_or_high} = \frac{PD\ design\ target}{sim.PD_{surface}(i)}, i \in SISO\ beams$$

Then finalize scaling factor, $s(i)$, by using equation below:

$$s(i) = \min\{slow(i), smid(i), shigh(i)\}, i \in SISO\ beams$$

and this scaling factor, $s(i)$, is applied to the input power at each antenna port to determine *input.power.limit* for SISO beams.

5.3.2 Scaling factor for MIMO beams

The relative phase between beam pair is not controlled in the EUT and could vary from run to run. Therefore, for beam pair, based on the simulation results, the worst-case scaling factor needs to be determined mathematically to ensure the compliance.

For beam pair, extract the E-fields and H-fields from the corresponding single beams at low, mid and high channel for each supported band and for all identified surfaces of the EUT.

For a given beam pair containing *beam_a* and *beam_b*, and for a given channel, let relative phase between *beam_a* and *beam_b* = $\varnothing$, and the total PD of the beam pair can be expressed as:

$$\begin{aligned} total\ PD(\varnothing) &= \frac{1}{2} \sqrt{Re\{PD_x(\varnothing)\}^2 + Re\{PD_y(\varnothing)\}^2 + Re\{PD_z(\varnothing)\}^2} \\ &= \frac{1}{2} Re \left\{ \left(\overrightarrow{E_a} + \overrightarrow{E_b} e^{j\omega\varnothing} \right) \times \left(\overrightarrow{H_a} + \overrightarrow{H_b} e^{j\omega\varnothing} \right)^* \right\} \quad (4) \end{aligned}$$

where, $PD_x(\varnothing)$, $PD_y(\varnothing)$ and $PD_z(\varnothing)$ are the three components of the *total PD* ($\varnothing$); E_a and H_a are the extracted E-fields and H-fields of *beam_a*, while E_b and H_b are the extracted E-fields and H-fields of *beam_b*. Sweep $\varnothing$ with a 5° step from 0° to 360° to determine the worst-case, $\varnothing_{worstcase}$, which results in the highest *total PD* ($\varnothing$) among all identified surfaces for this MIMO beam at this channel.

Follow the above procedure to determine $\varnothing_{worstcase}$ for all three channels of all bands supported, and obtain the scaling factor given by the below equation for low, mid and high channels:

$$s(i)_{low_or_mid_or_high} = \frac{PD \text{ design target}}{total \text{ PD } (\emptyset(i)_{worstcase})}, i \in MIMO \text{ beams}$$

Similar to SISO beam, the worst-case scaling factor, $s(i)$, for MIMO beam i is determined as:

$$s(i) = \min\{slow(i), smid(i), shigh(i)\}, i \in MIMO \text{ beams}$$

and this scaling factor, $s(i)$, is applied to the input power at each antenna port to determine *input.power.limit* for MIMO beams.

5.3.3 Input power limit when only mmW radio is ON

When only mmW radio is on, the power limit specifies the power level (denoted as *input.power.limit*) at antenna port that corresponds to PD_design_target for all the beams. The reference power used in simulation is 6dBm and denoted as *Pref*.

The logic to determine *input.power.limit* is as shown below:

If -TxAGC uncertainty at reference power level < Δmin < TxAGC uncertainty at reference power level, then

$$input.power.limit(i) = Pref + 10 * \log(s(i)), i \in all \text{ beams} \quad (1)$$

else if Δmin < -TxAGC uncertainty at reference power level,

$$input.power.limit(i) = Pref + 10 * \log(s(i)) + (\Delta min + \text{TxAGC uncertainty at reference power level}), i \in all \text{ beams} \quad (2)$$

else if Δmin > TxAGC uncertainty at reference power level,

$$input.power.limit(i) = Pref + 10 * \log(s(i)) + (\Delta min - \text{TxAGC uncertainty at reference power level}), i \in all \text{ beams} \quad (3)$$

Following above logic, the *input.power.limit* for this EUT can be calculated as:

Table 5-2: power.limit calculation

Band#	QTM #	Δmin (dB)	<i>input.power.limit</i> (dBm)	Notes
N261	0	0.7	6dBm + 10log(s(i)) + (0.7-0.5)	Using Eq.3
	1	2.2	6dBm + 10log(s(i)) + (2.2-0.5)	Using Eq.3
N260	0	0.2	6dBm + 10log(s(i))	Using Eq.1
	1	1.2	6dBm + 10log(s(i)) + (1.2-0.5)	Using Eq.3

Note the Δmin (dB) used is the minimum of Hpol and Vpol per QTM per band (see Table 3-2).

Resulted *input.power.limit* for all beams is listed in Table below:

Table 5-3: *input.power.limit*

N261			N260		
(Beam Pair)	Beam ID	Input.power.limit	(Beam Pair)	Beam ID	Input.power.limit
NA	0	9.04	NA	0	7.37
	1	8.12		1	7.04
	2	8.88		2	7.61
	3	6.72		3	6.28
	4	7		4	6.07
	5	7.16		5	7.33
	6	6.31		6	4.89
	7	6.62		7	6.03
	8	7.18		8	4.93
	9	4.99		9	4.75
	10	4.62		10	3.62
	11	3.83		11	3.22
	12	4.16		12	4.1
	13	6.25		13	3.33
	14	5.62		14	4.85
	15	6.56		15	4.81
	16	4		16	4.24
	17	3.62		17	3.69
	18	4.08		18	4.52
	19	4.01		19	3.54
	20	3.1		20	2.54
	21	3.11		21	2.58
	22	3.47		22	3.22
	23	5.28		23	2.6
	24	3.1		24	2.49
	25	1.65		25	1.24
	26	1.33		26	1.63
	27	1.38		27	2.66
	28	1.91		28	1.46
	29	3.47		29	1.05
	30	3.06		30	2.51
	31	3.23		31	3.46
	32	4.1		32	2.61
	33	2.29		33	2.56
	34	1.36		34	1.27
	35	1.43		35	2.21
	36	1.49		36	2.13
	128	9.09		37	1.19
	129	7.67		128	7.9
	130	9.33		129	6.66
	131	7.2		130	8.1
	132	7.22		131	6.49
	133	7.03		132	6.99
	134	6.02		133	7.86
	135	5.88		134	4.75
	136	7.1		135	5.41
	137	5.24		136	5.67
	138	4.67		137	4.72
	139	4.01		138	3.62
	140	5.09		139	4.16
	141	6.6		140	4.19
	142	5.94		141	3.56
	143	6.25		142	5.03
	144	4.29		143	5.58
	145	4.18		144	5.2
	146	4.15		145	4.23
	147	4.87		146	4.33
	148	3.55		147	4.29
	149	3.54		148	2.74
	150	3.76		149	3.04
	151	4.48		150	3.69
	152	2.73		151	2.84
	153	2.04		152	2.76
	154	1.5		153	1.66
	155	1.35		154	1.93
	156	2.42		155	2.53
	157	4.05		156	1.64
	158	3.38		157	1.46
	159	3.81		158	2.72
	160	3.94		159	3.81
	161	2.37		160	2.92
	162	1.73		161	2.76
	163	1.45		162	1.65
	164	1.74		163	2.33
				164	1.99
				165	1.59

N261			N260		
(Beam Pair)	Beam ID	input.power.limit	(Beam Pair)	Beam ID	input.power.limit
129	1	4.45	129	1	3.71
131	3	3.68	131	3	3.19
132	4	3.84	132	4	3.29
137	9	1.68	133	5	4.23
138	10	1.41	138	10	1.2
139	11	0.72	139	11	0.49
140	12	1.9	140	12	0.98
144	16	0.93	141	13	1.09
145	17	0.84	145	17	1.53
146	18	0.77	146	18	1.39
152	24	-1.12	147	19	1.52
153	25	-1.3	153	25	-1.92
154	26	-1.87	154	26	-1.55
155	27	-2.04	155	27	-1.16
156	28	-1.25	156	28	-1.82
161	33	-1.18	157	29	-2.09
162	34	-1.84	162	34	-1.95
163	35	-1.85	163	35	-1.37
164	36	-1.58	164	36	-1.45
128	0	5.81	165	37	-1.87
130	2	5.87	128	0	4.27
133	5	3.71	130	2	4.47
134	6	2.76	134	6	2.52
135	7	3.1	135	7	2.71
136	8	3.81	136	8	1.8
141	13	3.02	137	9	1.35
142	14	2.6	142	14	1.78
143	15	3.25	143	15	2.13
147	19	0.92	144	16	1.59
148	20	-0.19	148	20	-0.69
149	21	-0.13	149	21	-0.26
150	22	0.31	150	22	0.28
151	23	0.99	151	23	-0.62
157	29	0.64	152	24	-0.78
158	30	-0.25	158	30	-0.58
159	31	-0.01	159	31	0.04
160	32	0.75	160	32	-0.49
			161	33	-0.69

5.3.4 Further limitation and power backoff consideration

This EUT will use the Legacy power backoff solution to limit mmW transmit power from all the beams. The mechanism in legacy power backoff solution can only control the transmit power per QTM per band per SISO or MIMO beam, therefore, in order to ensure compliance all times, for each band, the minimum of input.power.limit out of all SISO beams and minimum of input.power.limit out of all MIMO beams needs to be determined and applied via legacy backoff solution accordingly.

The minimum power limit, min.power.limit, is determined based on Table 5-3 and listed in Table 5-4. Note the min.power.limit data rounded to one decimal place.

Table 5-4: SISO and MIMO min.power.limit for each band

N261	min.power.limit
min input.power.limit out of all SISO beams from QTM0 (dBm)	1.3
min input.power.limit out of all MIMO beams from QTM0 (dBm)	-2.0
min input.power.limit out of all SISO beams from QTM1 (dBm)	3.1
min input.power.limit out of all MIMO beams from QTM1 (dBm)	-0.3
N260	min.power.limit
min input.power.limit out of all SISO beams from QTM0 (dBm)	1.1
min input.power.limit out of all MIMO beams from QTM0 (dBm)	-2.1
min input.power.limit out of all SISO beams from QTM1 (dBm)	2.5
min input.power.limit out of all MIMO beams from QTM1 (dBm)	-0.8

Furthermore, the additional power backoff needs to be added in order to comply with TER requirement when mmW NR, LTE and WLAN MIMO transmit simultaneously. The maximum allowed PD budget is provided based on simultaneous transmission *reported* SAR in Part 1 report. For a given exposure scenario, if the maximum PD contribution ratio is higher than the corresponding maximum allowed PD budget, then the additional power backoff for TER requirement is determined using equation:

$$\text{additional power backoff (dB)} = 10 * \log \left(\frac{\text{maximum PD contribution ratio (in linear)}}{\text{maximum allowed PD budget (in linear)}} \right)$$

Examples for n261:

1. For head exposure, the maximum allowed PD budget is 0.44, the maximum PD contribution from left surface (QTM0) at 2mm to front surface at 2mm out of all SISO beams of QTM0 is 0.516, then the additional power backoff is 0.9dB ($=10*\log(0.516/0.44)$) for all SISO beams of QTM0.
2. For hotspot exposure where SAR measured at 10mm separation distance from front surface, the maximum allowed PD budget is 0.72, the maximum PD contribution from left surface (QTM0) at 2mm to front surface at 10mm out of all SISO beams of QTM0 is 0.240, then no additional power backoff is needed.

Following the similar steps described in the above examples, all additional power backoff required for TER requirement is listed in Table 5-5.

Table 5-5: Additional power backoff required for TER requirement

n261							dB			
RF Exposure Position	SAR Test Distance (mm)	Max allowed PD budget (in linear)	max PD contribution ratio out of all SISO beams from QTM0 (left)	max PD contribution ratio out of all MIMO beams from QTM0 (left)	max PD contribution ratio out of all SISO beams from QTM1 (right)	max PD contribution ratio out of all MIMO beams from QTM1 (right)	Additional backoff needed for QTM0 SISO beams	Additional backoff needed for QTM0 MIMO beams	Additional backoff needed for QTM1 SISO beams	Additional backoff needed for QTM1 MIMO beams
Head_worst-case (front)	0	0.44	0.516	0.505	0.546	0.551	0.7	0.6	0.9	0.9
Flat phantom	Front	0.72	0.240	0.259	0.263	0.269	0.0	0.0	0.0	0.0
	Back	0.58	0.232	0.259	0.263	0.266	0.0	0.0	0.0	0.0
	Left	0.92	0.572	0.626	0.004	0.003	0.0	0.0	0.0	0.0
	Right	0.75	0.003	0.002	0.580	0.617	0.0	0.0	0.0	0.0
	Top	0.70	0.014	0.015	0.022	0.015	0.0	0.0	0.0	0.0
	Bottom	0.97	0.010	0.008	0.009	0.007	0.0	0.0	0.0	0.0
n260										
RF Exposure Position	SAR Test Distance (mm)	Max allowed PD budget (in linear)	max PD contribution ratio out of all SISO beams from QTM0 (left)	max PD contribution ratio out of all MIMO beams from QTM0 (left)	max PD contribution ratio out of all SISO beams from QTM1 (right)	max PD contribution ratio out of all MIMO beams from QTM1 (right)	Additional backoff needed for QTM0 SISO beams	Additional backoff needed for QTM0 MIMO beams	Additional backoff needed for QTM1 SISO beams	Additional backoff needed for QTM1 MIMO beams
Head_worst-case	0	0.44	0.420	0.437	0.482	0.487	0.00	0.00	0.36	0.40
Flat phantom	Front	0.72	0.211	0.208	0.233	0.240	0.00	0.00	0.00	0.00
	Back	0.58	0.262	0.248	0.248	0.247	0.00	0.00	0.00	0.00
	Left	0.92	0.580	0.606	0.002	0.002	0.00	0.00	0.00	0.00
	Right	0.75	0.001	0.001	0.580	0.600	0.00	0.00	0.00	0.00
	Top	0.70	0.013	0.015	0.014	0.015	0.00	0.00	0.00	0.00
	Bottom	0.97	0.008	0.008	0.009	0.008	0.00	0.00	0.00	0.00

5.3.5 PD char

Based on Table 5-4 and Table 5-5, the PD char for compliance via legacy power backoff solution can be finalized listed as Table 5-6 and will be implemented in production units.

Table 5-6: Final PD Char

n261		
QTM/beam type	additional backoff (dB) for TER	Final input.power.limit
QTM0 SISO beam	0.7	0.7
QTM0 MIMO beam	0.6	-2.6
QTM1 SISO beam	0.9	2.2
QTM1 MIMO beam	0.9	-1.2
n260		
QTM/beam type	additional backoff (dB) for TER	Final input.power.limit
QTM0 SISO beam	0	0.7
QTM0 MIMO beam	0	-2.4
QTM1 SISO beam	0.36	2.1
QTM1 MIMO beam	0.4	-1.2