FCC ID: A3LSMS711U

Power Density Simulation Report

Revision A

July 27, 2023

SAMSUNG ELECTRONICS

1. Simulation methodology for Power Density (PD)

1.1 Simulation tool

1.1.1 Tool description

For the simulation approach to calculating power density (PD) evaluation for mobile phone with mmWave antenna modules, ANSYS Electromagnetics suite version 2022.R2 (HFSS) is used. ANSYS HFSS is one of several commercial tools for 3D full-wave electromagnetic simulation used for antenna and RF structure design of high frequency component. ANSYS Electromagnetics suite version 2022.R2 (HFSS) is implemented based on Finite Element Method (FEM), which operates in the frequency domain.

1.1.2 Mesh and Convergence criteria

To solve the PD analysis using FEM, volume area containing simulated objects should be subdivided into electrically small parts that are called finite elements as the unknown functions. To subdivide system, the adaptive mesh technique in ANSYS Electromagnetics suite version 2022.R2 (HFSS) is used. ANSYS Electromagnetics suite version 2022.R2 (HFSS) starts to refine the initial mesh based on wavelength and calculate the error to iterative process for adaptive mesh refinement. The determination parameter of the number of iteration in ANSYS Electromagnetics suite version 2022.R2 (HFSS) is defined as convergence criteria, delta S, and the iterative adaptive mesh process repeats until the delta S is met. In ANSYS Electromagnetics suite version 2022.R2 (HFSS), the accuracy of converged results depends on the delta S. Figure 1 is an example of adaptive mesh of the device (cross-section of top view).

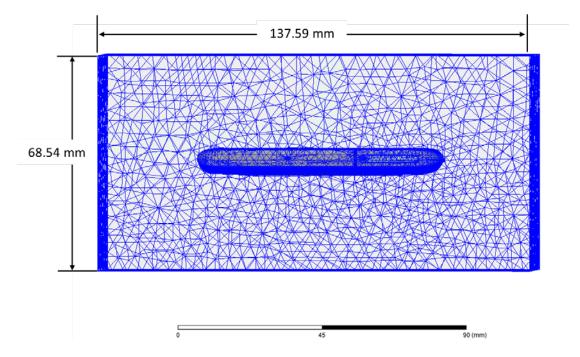


Figure 1 Example of the adaptive mesh technique (Top view)

1.1.3 Power density calculation

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

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

 $\langle \vec{S} \rangle$ can be expressed as point power density based on a peak value of each spatial point on mesh grids, and obtained directly from ANSYS Electromagnetics suite version 2022.R2 (HFSS).

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

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

, where the spatial-averaged power density (PD_{av}) is total power density value considering on x, y and z components of point power density $\langle \vec{S} \rangle$ and the evaluated area (A) is 4cm².

1.2 Simulation setup

1.2.1 3D modeling

Figure 2 shows the simulation model which is mounted one mmWave antenna module. The simulation modeling includes most of the entire structure of device itself such as PCB, metal frame, battery, cables, and legacy antennas as well as mmWave antenna module called as Ant M. The modeling contains the entire EUT to enable a Smart transmit GEN1, as well. Ant M is placed on the left side and antennas are facing the left side of the device.

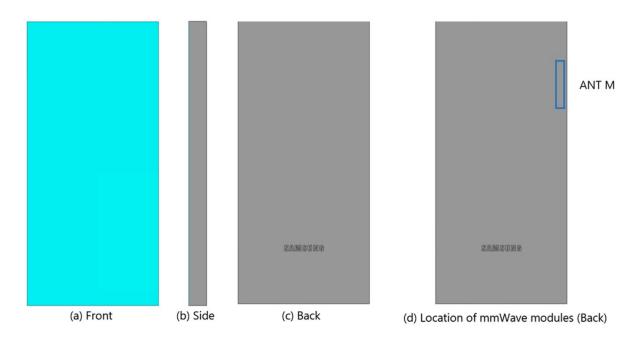


Figure 2 Simulation model which is mounted one mmWave antenna module

1.2.2 PD evaluation planes

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

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

Table 1. PD evaluation planes

Modu	le	Front	Back	Left From Front View	Right From Front View	Тор	Bottom
		S1	S2	S 3	S4	S5	S 6
Ant N	1	О	О	О	О	О	О

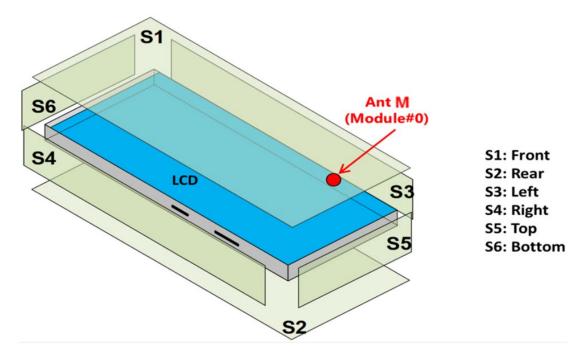


Figure 3. PD evaluation planes

1.2.3 Boundary condition

To simulate electromagnetic tool based on FEM, the boundary condition allows electromagnetic waves to be electrically open at the boundary and radiated far away without reflection. ANSYS Electromagnetics suite version 2022.R2 (HFSS) can support the absorbing boundary condition (ABC) for radiation boundary and make normally a quarter wave length from the radiating structure. In this report, to cover all beamforming cases of mmWave antenna module, 40 mm spacing from the device for each surfaces were adopted.

1.2.4 Source excitation condition

The antenna port of ANT M is divided into 10 ports for n261 and n258 1 x 5 patch array antennas, 10 ports for n260 1 x 5 patch array antennas. In the 10 ports included in each patch antenna, 5 ports are divided into vertical polarization feeding, and the other 5 ports are divided into horizontal polarization feeding.

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

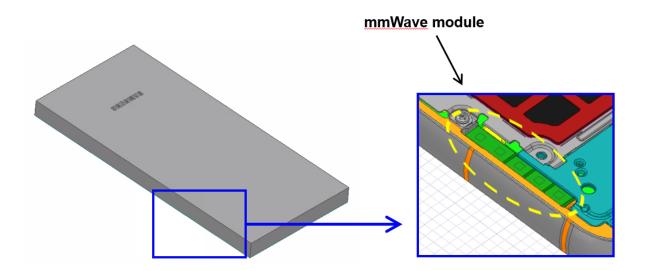


Figure 4. mmWave module (ANT M)

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

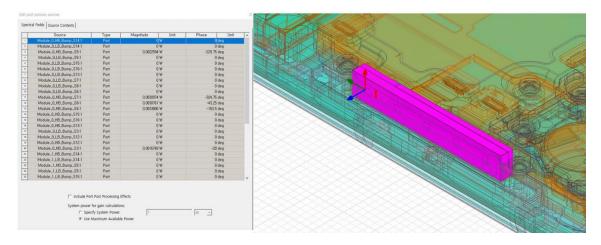


Figure 5. An example of port excitation (ANT M)

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

1.2.5 Condition of simulation completion

The simulation completion condition of ANSYS Electromagnetics suite (HFSS) is defined as delta S. The ANSYS Electromagnetics suite (HFSS) calculates the S-parameter for the mesh conditions of each step and determines whether to proceed with the operation of the next step by comparing the difference

between the S-parameters in the previous step. A difference between the previous step and the current step of S-parameter is expressed as delta S, and the delta S generally sets 0.02. The simulation result of this report is the result of setting delta S to 0.02.

2. Simulation verification

2.1 Spatial-averaged power density and sim.powerlimit

As mentioned in the previous chapter, the Poynting vector (\vec{S}) can be obtained through cross product of an electric field (\vec{E}) and complex conjugate of a magnetic field (\vec{H}) . The real term of the Poynting vector can be described as the point power density or peak power density. Using the point power density, the spatial-averaged power density can be obtained by the integral of 4 cm² at 2.5 mm intervals of the point power density result. Figure 6 shows examples of the distribution plot of point power density and the averaged power density.

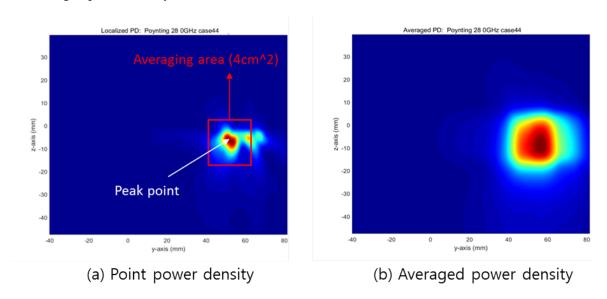


Figure 6. Power density distribution (Example)

2.2 Comparison between simulation, measurement

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

Based on comparison of power density distributions, simulated power density and measured power density have a good correlation. The discrepancy in amplitude between simulated 4cm² averaged power density and measured 4cm² averaged power density is considered as housing influence and used in determining input power limit for each beam for RF exposure compliance.

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

Mode/Band	Antenna	Input Power (dBm) SISO	Input Power (dBm) MIMO
5G NR n261	M Patch	6	6
5G NR n260	M Patch	6	6
5G NR n258	M Patch	6	6

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

Band	Channel	Module	Type(P or D)	Side	Beam ID	PLS (10 dBm)	Sim. PD (mW/cm2)	Meas. PD (mW/cm2) * Circle Avg
	nat d			Rear	19		0.744	0.232
n261	Mid Ch. 2077915	М	Patch	Left	15	60	1.449	0.878
11201	(27924.96 MHz)	IVI	Pattii	Rear	144	00	0.656	0.327
	(27524.50 WITE)			Left	144		1.091	0.593
	BA: d			Left	18		1.265	0.76
n260	Mid Ch. 2254165	М	Patch	Front	10	60	0.645	0.357
11200	(38499.96 MHz)	101	rattii	Left	147	00	0.910	0.678
	(30-133:30 WITE)			Front	146		0.537	0.332
	B.a.: J			Left	13		2.106	1.36
n258	Mid Ch. 2025833	М	Patch	Front	14	60	1.017	0.376
11230	(24800.04 MHz)	101	Fattii	Rear	143	00	0.661	0.36
	(= 1000.04 Willia)			Left	145		0.889	0.428

• Table 2-1, n261 ANT M-Patch

Beam ID	Surface	View	Simulated PD	Measured PD
19	S2 (Rear)	2.5542.23HE		
15	S3 (Left)	ANTM		

• Table 2-2, n261 ANT M-Patch

Beam ID	Surface	View	Simulated PD	Measured PD
144	S2 (Rear)	ANTM		
144	S3 (Left)	ANTM		

• Table 2-3, n260 ANT M-Patch

Beam ID	Surface	View	Simulated PD	Measured PD
18	S1 (Front)	ANTM		
10	S3 (Left)	ANTM		

• Table 2-4, n260 ANT M-Patch

Beam ID	Surface	View	Simulated PD	Measured PD
146	S1 (Front)	ANT M		
147	S3 (Left)	ANTM		

• Table 2-5, n258 ANT M-Patch

Beam ID	Surface	View	Simulated PD	Measured PD
14	S1 (Front)	ANTM		
13	S3 (Left)	ANTM		

• Table 2-6, n258 ANT M-Patch

Beam ID	Surface	View	Simulated PD	Measured PD
143	S2 (Rear)	ANTM		
143	S3 (Left)	ANTM		

3 Simulation results

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

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

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

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

3.1.1 Ant M-Patch Antenna

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

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

- M-patch Low CH

															max ratio ou	t of all beams												max ratio out of all b	eams		
П							4	4cm2 PE	D(mW/cm	12)			2.1%	100.0%	19.6%	2.6%	\$6.8%	79.0%	40	om2 PD(r	mW/cm2)	at 10mm eva	Austion dist	ince	67.2%	2.1%	67.2%	13.5%	1.7%	23.8%	34.6%
No. M	odule Typ	se Seam ID_1	Berna ID,2		S4(Right)	Shiets	\$5(Top)	0 56/80	nttorn)	S1(Front)	52/Read	per Beam	ratio (Right 2mm)/(worst-	ratio (Left 2mm)/(wont-	ratio (Top 2mm)//wont-	ratio (Bottom 2mm) //wont-	ratio (Fornt 2mm)//worst-	ratio (Rear 2mm)/(wont-	Sarguen	531.49	SS(Top)	SE/Bottom	\$1(Front	S2 Read	ratio worst-surface	ratio (Right 10 mm)//worst-	ratio (Left 10mm\/(lwonst-	ratio (Top 10mm)/jwont-	ratio (Bottom	ratio (Front 10mm)/(wont-	ratio (Rear 10mm)/(wont-
ш				1 1	0.00			1				Back-off (dB)	surface 2mm) 0.6%	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm) 17.2%	surface 2mm)				0.00			(10mm/2mm)	surface 2mm) 0.3%	surface 2mm) 29.2%	surface 2mm) 2.8%	10mm(/(wont- surface 2mm) 0.2%	surface 2mm)	surface 2mm) 16.2%
2		1	-	-	0.00		0.01			0.13	0.12	+	0.9%	100.0%	1.0%	0.3%	31.0%	19.2%			0.01		0.03	0.06	45.0%	0.6%	45.0%	2.0%	0.2%	0.0%	16.1%
3		2		1	0.00	0.21	0.02	0.	.00	0.11	0.10		1.3%	100.0%	4.0%	0.3%	35.5%	32.6%	0.00	0.14	0.01	0.00	0.04	0.04	45.0%	1.0%	45.0%	1.5%	0.3%	11.2%	12.0%
4		3	_		0.00		0.02			0.11	0.11	-	1.0%	100.0%	7.3%	0.3%	36.9% 50.0%	36.9% 34.5%	0.00		0.01	0.00	0.03	0.04	38.9% 45.7%	0.7% 1.3%	38.9% 45.7%	4.0% 2.2%	0.3%	11.0%	12.0% 12.5%
6		- 1	_		0.00		0.07			0.12	0.08	+	1.7%	100.0%	11.9%	0.5%	36.9%	36.0%	0.01	0.27	0.05	0.00	0.08		45.75	1.0%	46.6%	7.8%	0.3%	12.2%	14.5%
7		6			0.01		0.05			0.18	0.27		12%	100.0%	7.9%	0.4%	11.6%		0.01			0.00	0.05	0.13	53.0%	0.9%	53.0%	5.3%	0.2%	9.1%	22.1%
1		7			0.01		0.01			0.27	0.26	-	12%	100.0%	1.5%	0.3%	45.1% 43.4%	44.7% 29.6%				0.00	0.10	0.11	58.5% 44.0%	0.9%	58.5% 44.0%	1.0%	0.3%	16.2% 16.1%	18.9%
10				2	0.01	0.46	0.04	0.	.00	0.11	0.17		1.1%	100.0%	8.3%	0.7%	23.9%	37.7%	0.00	0.17	0.03	0.00	0.04	0.08	36.6%	0.9%	16.6%	6.4%	0.4%	8.1%	17.5%
11		10	_	2	0.01		0.02		00	0.25	0.30	_	0.8%	100.0% 100.0%	3.5%	0.2% 0.1%	41.6% 45.5%	49.4% 38.7%	0.00			0.00	0.09	0.13	60.4% 57.8%	0.5%	60.4% 57.8%	2.0% 0.4%	0.0%	15.3% 15.8%	22.2%
12		12	_	5 5	0.00		0.23		.00	0.43	0.42	+	0.5%	100.0%	19.6%	0.1%	45.5% 27.2%	36.0%	0.00	0.42	0.16	0.00	0.12	0.13	44.05	0.6%	44.0%	13.5%	0.7%	15.8%	17.2%
14		13			0.01		0.23			0.58	0.58		0.7%	100.0%	16.2%	0.1%	41.2%	41.2%	0.01		0.15		0.25		55.3%	0.6%	55.3%	10.7%	0.1%	17.8%	21.0%
15		14			0.02		0.03	0.		0.61	0.81	-	1.2%	100.0%	2.0%	0.1%	44.3% 51.0%	59.3% 50.9%	0.02		0.02	0.00	0.28	0.47	65.6%	1.1%	65.6%	1.5%	0.1%	20.8%	34.6% 27.1%
17		16	_		0.01		0.04			0.71	0.42	_	0.6%	100.0%	1.0%	0.6%	48.1%		0.01			0.01	0.29	0.20	47.5%	0.4%	47.5%	14%	0.5%	19.8%	13.1%
18		17		- 5	0.01	1.24	0.25			0.50	0.46		0.8%	100.0%	19.1%	0.2%	38.7%		0.01	0.61		0.00		0.24	47.8%	0.6%	47.8% 61.7%	13.4%	0.2%	16.5%	18.8%
20		18	-	5	0.02		0.11		00	0.62	0.76	+	1.0%	100.0% 100.0%	7.3%	0.1% 0.2%	42.3% 46.1%	51.8% 56.5%	0.01	0.91	0.06	0.00	0.28	0.42	67.2%	0.7% 1.2%	61.7% 67.2%	0.1%	0.1%	18.9% 22.2%	28.6% 32.5%
21		20		5	0.02	1.55	0.03		.00	0.77	0.61		1.0%	100.0%	1.9%	0.2%	49.4%	39.1%	0.01		0.02	0.00	0.34	0.30	61.1%	0.7%	61.1%	1.3%	0.2%	21.9%	19.4%
22		128		1	0.00	0.19	0.01	6	8	0.07	30.0		1.1%	100.0%	4.05	1.6%	14.4%	31.2% 46.4%	0.00	0.08	0.01	0.00	0.02	0.02	40.2%	1.1%	40.2%	1.7%	1.1%	9.5%	11.6%
21		129	_	-	0.00		0.01			0.06	0.08	+	2.2% 1.0%	100.0% 100.0%	1.2% 5.7%	0.6%	23.7% 27.8%		0.00	0.06	0.00		0.02	0.03	35.4% 40.2%	1.7%	35.4% 40.2%	2.2% 1.6%	0.6%	9.4%	14.4%
25		131			0.00	0.17	0.01	0.	00	0.06	0.07		17%	100.0%	5.2%	0.6%	15.1%	28.7%	0.00	0.07	0.01	0.00	0.02	0.03	41.0%	1.2%	41.0%	2.9%	0.6%	11.0%	16.2%
26		132		-	0.00	0.13	0.02	0	.00	0.06			3.1%	100.0%	11.5%	15%	48.9% 45.6%					0.00			42.0%	2.3%	42.0% 40.6%	6.1% 4.8%	1.5%	11.7%	19.8%
28		124	_		0.01		0.01		.00	0.16	0.11	_	1.6%	100.0%	3.4%	0.5%	40.0%	37.6%	0.01		0.02		0.06	0.00	49.7%	1.25	49.7%	2.6%	0.3%	14.0%	19.5%
29		135		2	0.00		0.01		.00	0.14	0.19		1.0%	100.0%	1.5%	0.2%	35.1%	46.6%	0.00		0.00	0.00	0.06	0.08	51.2%	1.0%	51.2%	1.0%	0.2%	13.7%	18.8%
30		126	_	2	0.01		0.02		00	0.08	0.23	-	1.6%	100.0% 100.0%	6.8%	0.9%	21.9% 21.7%	66.7% 42.8%	0.00				0.03	0.11	35.9%	1.1%	38.7% 35.9%	4.3% 6.5%	0.9%	7.7%	32.2% 20.6%
	M Pate	th 128			0.01		0.01			0.15	0.17	_	1.3%	100.0%	1.8%	0.5%	18.0%	43.7%	0.00				0.06	0.07	52.7%	0.8%	52.7%	1.3%	0.5%	14.7%	16.0%
22		129			0.01					0.12	0.16		2.2%	100.0%	3.8%	1.3%	29.4%		0.01				0.05	0.06	31.15	1.6%	28.8%	2.2%	1.3%	14.2%	17.4%
34 35		140	_		0.02					0.27	0.26	-	2.7% 2.3%	100.0% 100.0%	17.5% 15.0%	13%	40.5% 35.3%		0.01					0.11		2.0% 2.2%	14.5% 41.0%	11.7%	1.7%	14.0%	17.2% 28.2%
36		142		5	0.02	0.91	0.02	0	00	0.41	0.32		1.8%	100.0%	2.3%	0.2%	44.9%	35.6%	0.01	0.52	0.01	0.00	0.20	0.20	57.2%	1.5%	57.2%	1.3%	0.2%	21.5%	22.4%
37		143			0.01	0.09	0.01		02	0.35	0.43		13%	100.0% 100.0%	15%	0.4% 1.6%	39.6% 25.4%	48.5% 60.7%	0.01		0.01	0.00	0.16	0.21	55.1% 31.6%	1.1%	55.1% 31.6%	1.0% 1.7%	0.4%	18.4% 11.2%	24.1%
30		145			0.01		0.03		01	0.25	0.61	-	2.3%	100.0%	17.2%	2.0%	25.4%	45.0%	0.01	0.22	0.02	0.01	0.11	0.24	25.8%	12%	35.0%	11.5%	14%	14.25	21.0%
40		146			0.02		0.06			0.38	0.42		2.1%	100.0%	6.8%	0.5%	40.7%	45.8%	0.02		0.04	0.00	0.18	0.24	54.5%	1.7%	54.5%	4.1%	0.4%	19.5%	25.9%
41		147			0.01		0.03			0.38	0.29	_	12% 15%	100.0% 100.0%	10%	0.4% 0.7%	45.2% 31.1%		0.01				0.18	0.18	57.2% 45.4%	0.9%	57.2% 45.4%	1.8%	0.2%	21.1%	21.4%
41		0	128	2	0.00	0.63	0.03	0.	.01	0.23	0.22	_	0.6%	100.0%	5.0%	0.9%	16.6%	15.0%	0.00	0.27	0.02	0.00	0.08	0.10	42.0%	0.6%	42.0%	1.6%	0.6%	12.1%	15.1%
44		1 2	129	2	0.01		0.02			0.19	0.23	\vdash	1.6%	100.0%	3.8%	0.4%	34.4%	40.9%	0.01				0.06	0.09	42.3%	1.3%	42.3%	2.7%	0.4%	10.8%	16.9%
45		2	110	2	0.01		0.04			0.18	0.20	+	1.1% 2.2%	100.0%	6.2%	0.5%	31.9% 16.7%	35.4% 42.7%	0.00		0.03	0.00	0.06	0.09	41.9%	0.7%	41.9%	4.4%	0.4%	9.7%	15.3%
47		4	132	2	0.01	0.44	0.03	0.	.00	0.25	0.18		1.6%	100.0%	6.9%	0.9%	56.8%	41.4%	0.00	0.19	0.02	0.00	0.08		43.7%	0.9%	43.7%	2.7%	0.7%	17.5%	16.1%
48		5	122	4	0.02		0.12			0.46	0.31		1.9%	100.0%	10.5%	0.8%	41.4%	27.2%	0.02			0.01	0.19	0.16	41.4%	1.4%	41.4%	7.3%	0.5%	16.8%	14.3%
49		- 6	124	4	0.02		0.06		00	0.46	0.48	+	2.0%	100.0%	5.8%	0.1%	41.5% 41.8%	43.5% 50.6%	0.02			0.00	0.16	0.25	47.5% 50.4%	1.4%	47.5% 58.4%	4.0%	0.3%	14.1%	22.4%
51			126	4	0.01	1.03	0.09	0.		0.27	0.49		1.4%	100.0%	1.5%	0.9%	16.0%	47.2%	0.01	0.50	0.06	0.01	0.14		41.7%	1.0%	48.7%	5.4%	0.9%	11.5%	20.2%
52		9 10	137		0.01					0.25	0.38	\vdash	12%	100.0%	11.5%	0.8%	25.6% 42.0%	38.3% 48.5%	0.01		0.06		0.10	0.18	39.2% 54.2%	0.9%	39.2% 54.2%	8.0% 2.5%	0.7%	10.5%	18.5%
54		11	139		0.02		0.02			0.46	0.50	+	12%	100.0%	1.9%	0.7%	42.0%	44.0%	0.01			0.00	0.15		57.6%	1.0%	57.6%	12%	0.5%	17.9%	19.8%
55		12	140	10	0.03	2.50	0.47	0.	.03	1.08	0.96		1.4%	100.0%	18.9%	1.4%	43.1%	28.2%	0.02	1.02	0.32	0.02	0.44	0.48	40.8%	0.9%	40.8%	12.9%	0.9%	17.6%	19.4%
56		12	141		0.04	2.49	0.43		02	1.10	1.19	-	1.5%	100.0%	17.3%	0.6%	44.0% 41.6%	47.8% 57.0%	0.04		0.28	0.01	0.52	0.62	53.9%	1.4%	51.9% 61.2%	11.4%	0.5%	20.7%	24.9% 33.2%
58		15	142	10	0.04	2.62	0.03	- 0	.01	1.26	1.39	_	14%	100.0%	1.15	0.1%	48.3%	57.0%	0.03	1.62	0.02	0.01	0.62	0.76	62.1%	1.0%	62.1%	0.9%	0.7%	21.0%	28.9%
59		16	144	10	0.03	2.81	0.09		.04	1.29	1.07		1.0%	100.0%	12%	1.4%	49.6%	20.2%	0.02	1.21	0.05	0.03	0.64	0.58	45.7%	0.6%	46.7%	1.7%	1.1%	22.8%	20.5%
60		17	145	10	0.03	2.55	0.48		.02	1.10	1.65	-	13%	100.0%	18.8% 8.5%	0.9%	43.3% 47.1%	40.3% 50.7%	0.03		0.33	0.01	0.45	0.53	43.9%	1.5%	41.9% 62.5%	13.0%	0.5%	18.6% 21.0%	20.9% 32.8%
62		19	147	10	0.05	2.60	0.03	0.	.01	1.10	1.36		1.7%	100.0%	1.3%	0.4%	42.3%	52.3%	0.03	1.63	0.02	0.01	0.55		62.5%	1.3%	62.5%	0.8%	0.2%	21.0%	10.3%
63		20	148	10	0.04	2.88	0.07	9	.01	1.25	1.38	ᅳ	1.3%	100.0%	2.5%	0.5%	43.6%	47.9%	0.03	1.60	0.05	0.01	0.62	0.68	50.4%	1.0%	58.4%	1.0%	0.4%	21.5%	23.5%

- M-patch Mid CH

															max ratio ou	t of all beams												max ratio out of all	beams		
П							4	cm2 PD(mW	(/cm2)				10%	100.0%	20.0%	2.4%	\$5.0%	60.4%	4	om2 PD(n	nW/cm2) a	et 10mm eva	lustion dist	unce	65.9%	2.1%	65.9%	14.1%	1.5%	26.0%	34.7%
No. 1	foclule Type	Beam ID_	1 Bena ID,	2 Feed no	S4(Right			S6(Botton			Day	per learn ck-aff (dB)	ratio (Right 2mm)/(worst- surface 2mm)	ratio (Left 2mm)/(wont- surface 2mm)	ratio (Top 2mm)/(wont- surface 2mm)	ratio (Bottom 2mm)/(wont- surface 2mm)	ratio (Fornt 2mm)/(wonst- surface 2mm)	surface 2mm)	S4(Right)			S&(Bottom)			ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(wont- surface 2mm)	ratio (Left 10mm)/(wonst- surface 2mm)	ratio (Top 10mm)/(wont- surface 2mm)	ratio (Bottom 10mm)/(wont- surface 2mm)	ratio (Front 10mm)/(wont- surface 2mm)	ratio (Rear 10mm),/(worst- surface 2mm)
1 2		0		-	0.00	0.34	0.01	0.00	0.1		2		0.5%	100.0%	2.7%	0.3%	17.2% 15.4%	34.8% 29.8%	0.00	0.13	0.01	0.00	0.05		39.0% 41.4%	0.3%	39.0% 41.4%	2.1%	0.3%	9.4%	16.7%
3		2		1	0.00	0.30	0.02		0.10				1.0%	100.0%	5.1% 7.2%	0.3%	11.2% 18.2%	11.9%	0.00		0.01	0.00	0.03		42.0% 41.2%	1.0%	42.0% 41.2%	4.1%	0.3%	10.8% 11.5%	12.2% 15.3%
5		- 4		-	0.01	0.19	0.01	0.00	0.10	0.0			2.6%	100.0%	4.2%	0.5%	52.6%	41.1%	0.00	0.00	0.01	0.00	0.03	0.03	43.2%	1.6%	41.2%	2.6%	0.5%	16.1%	15.6%
6		- 5		2	0.01		0.07	0.00	0.11	9 02	9		13%	100.0%	12.3%	0.4% 0.2%	16.4% 16.2%	36.9% 41.0%	0.01	0.26	0.05	0.00	0.06		41.9% 51.1%	1.1%	48.9% 53.1%	8.7% 5.5%	0.4%	12.1%	13.4%
- 6		7		2	0.01	0.54	0.01	0.00	0.21	5 63	<		15%	100.0%	1.2%	0.2% 8.7%	46.1%	46.9%	0.01	0.30	0.01	0.00	0.10	0.12	55.6%	0.9%	55.6% 26.1%	0.9%	0.2%	17.6%	21.9%
10		- 0		2		0.46	0.04	0.00	0.14			-	13%	100.0%	4.35 4.85	0.7%	41.6% 28.2%		0.01		0.03	0.00			40.1% 36.0%	1.3%	40.1% 36.0%	5.9%	0.7%	9.0%	13.2%
11		10		2	0.01	0.58	0.03	0.00	0.24				1.2%	100.0%	4.6%	0.2% 0.3%	40.7% 45.3%	47.5% 28.1%		0.34	0.01	0.00	0.08		59.0% 56.7%	0.7%	59.0% 56.7%	2.1% 0.5%	0.2% 0.3%	14.4% 15.6%	21.6% 16.8%
12		12	_	5	0.01	1,27	0.24	0.00	0.4				0.5%	100.0%	18.8%	0.3%	27.2%	32.0%	0.00	0.57	0.17	0.00	0.20	0.22	44.6%	0.5%	44.6%	13.4%	0.2%	15.5%	17.2%
14		12		5	0.01		0.22	0.00	0.54		2 5		0.9%	100.0%	17.6%	0.3%	42.6% 41.7%	40.5%	0.01	0.72	0.13	0.00	0.21		56.9% 61.2%	0.7%	56.9%	9.9%	0.2%	18.4%	20.9%
2 3 4 4 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		15		3	0.03	1.45	0.02	0.00	0.77	0.0	a a		1.9%	100.0%	1.2%	0.2% 0.1%	50.1%		0.02		0.01	0.00	0.35	0.39	61.1%	1.2%	61.2% 61.1%	1.1% 0.7%	0.2% 0.1%	24.3%	27.1%
17		16		- 5	001		0.04	0.01	96	7 01	9		1.0%	100.0% 100.0%	18.1%	0.8% 0.2%	47.8% 39.1%		0.01		0.02	0.01	0.29		50.0% 48.0%	0.6%	50.0% 48.0%	1.1%	0.7% 0.2%	20.6% 16.3%	11.8% 17.7%
19		18		5	0.01	1.24		0.00	0.50	0.0	4		1.0%	100.0%	6.9%	0.2%	40.0%	51.5%	0.01	0.76	0.03	0.00	0.24	0.38	61.0%	0.8%	61.0% 65.9%	2.7%	0.2%	19.2%	30.7% 29.9%
20		19	-	5	0.03		0.01	0.00	0.51			-	1.8%	100.0%	0.8%	0.1%	49.2% 50.1%	51.7% 41.7%	0.02		0.01	0.00	0.33		65.9% 59.5%	1.3%	65.9% 59.5%	0.5% 1.4%	0.1%	23.0%	29.9%
22		128		1	0.00		0.01	0.00	0.00	7 0.0	31		1.5%	100.0%	5.1% 2.7%	2.0% 0.5%	11.5% 10.9%	27.9%	0.00	0.08	0.01	0.00	0.02	0.02	41.1% 35.6%	1.0%	41.1% 15.6%	1.6% 2.1%	1.5% 0.5%	9.1%	10.7% 15.4%
24		120			0.00	0.20	0.01	0.00	0.00		0		1.0%	100.0%	5.0%	0.5%	28.1%	41.2%	0.00	0.07	0.00	0.00	0.02		41.2%	0.5%	41.2%	1.5%	0.5%	10.1%	21.1%
25		131		7	0.00		0.01	0.00	90	9.5	6		17%	100.0%	7.15	13%	45.7% 41.2%	31.8% 33.8%	0.00	0.07	0.01	0.00	0.02	0.02	41.0%	125	41.0% 40.3%	2.9% 1.9%	0.6%	11.6%	12.7% 12.1%
27		133		2	0.00	0.36	0.02	0.01	0.14	4 0.1	1		1.1%	100.0%	5.8%	1.9%	29.3%	31.0%	0.00	0.15	0.02	0.01	0.05		40.7%	0.8%	40.7%	4.2%	1.4%	13.9%	15.6%
28		134	-	2	0.00	0.38	0.01	0.00	0.15	5 0.1	7	-	1.1% 0.7%	100.0%	1.5%	0.8%	38.8% 36.4%	40.2% 41.1%	0.00	0.19	0.01	0.00	0.06	0.07	51.3% 51.9%	0.8%	51.3% 51.9%	2.4% 0.5%	0.5%	14.9%	18.9% 17.5%
30		126		2	0.01	0.22	0.02	0.00	0.1	1 02			1.9%	100.0%	7.4%	0.9% 1.0%	34.1% 42.0%	60.4%	0.00	0.14	0.02	0.00	0.04		41.35	1.2%	43.3% 40.3%	5.0% 7.2%	0.6%	11.5%	28.2%
22	M Patch	120		2	0.01	0.29	0.01	0.00	0.1	5 0.1	5		1.3%	100.0%	2.1%	0.3%	38.9%	39.1%	0.00	0.12	0.01	0.00	0.06	0.07	53.4%	0.8%	53.4%	1.6%	0.3%	14.8%	17.4%
33		119		2			0.01		93				2.7% 1.0%	100.0%	13%	12%	48.4% 45.4%		0.01		0.01		0.06		42.4% 37.4%	1.8% 2.1%	42.4% 37.4%	1.0%	0.9%	17.2% 16.6%	15.1% 17.2%
35		141	_	5	0.02	0.74	0.09	0.01	0.3				2.2%	100.0%	12.3%	12% 02%	42.0%	50.0%	0.01	0.33	0.06	0.01	0.15		44.7%	1.5%	44.7% 60.4%	8.6%	0.9%	19.9%	25.5% 20.1%
36		143	_	5	0.01		0.02		0.43			-	1.1%	100.0%	1.6%	0.3%	46.2% 40.8%	33.9% 40.2%	0.01	0.55	0.01	0.00	0.20		55.1%	0.9%	50.4% 55.1%	0.9%	0.2%	21.8% 19.2%	20.1%
38		144		5	0.02	1.09	0.02	0.02	0.21	0.0			1.7%	100.0%	2.1%	1.5%	25.8% 44.0%	60.1% 40.8%	0.01	0.25	0.01	0.02	0.12		31.7% 38.6%	1.0%	31.7% 38.6%	1.2% 10.3%	1.4%	11.0% 17.8%	24.9% 19.7%
40		146		- 5	0.01	0.90	0.07	0.00	0.35	5 0.4			1.5%	100.0%	7.5%	0.4%	29.1%	46.4%	0.01	0.49	0.03	0.00	0.17		54.7%	1.2%	54.7%	12%	0.3%	19.0%	27.4%
41		147		5	0.01		0.02		0.4	1 02	9		0.9%	100.0%	1.8% 2.6%	0.3%	47.2% 16.5%	32.7% 54.6%	0.01	0.52	0.01		0.19	0.17	59.8% 48.6%	0.7% 1.3%	59.8% 48.6%	1.2%	0.2%	22.3%	19.9% 29.2%
43		0	128	2	0.01	0.64	0.02	0.01	0.22		2		1.1%	100.0% 100.0%	3.6%	0.5%	14.0%	33.6%	0.00	0.28	0.02		0.08		42.9%	0.6%	42.9%	2.8%	0.5%	15.3% 12.6%	15.1%
45		1 2	129	2	0.01	0.61	0.02	0.00	0.21		1	-	0.8%	100.0%	3.8% 7.4%	0.3% 0.6%	34.7% 30.7%	33.2% 39.6%	0.01	0.22	0.02	0.00	0.07		37.7% 42.1%	0.8%	37.7% 42.1%	2.6% 5.5%	0.3%	10.9%	14.2%
46		3	131		0.01		0.04	0.00	0.21		10		2.3%	100.0%	7.7%	0.4%	42.9% 55.0%	41.9% 43.7%	0.01	0.22	0.02	0.00	0.07		46.3% 40.2%	1.5% 1.3%	46.3% 40.2%	4.8% 4.3%	0.4%	14.6%	14.8% 17.1%
40		- 5	123	- 4			0.10	0.01	0.4		0		1.8%	100.0%	10.2%	1.3%	42.5%	10.5%	0.01	0.16	0.07	0.00	0.15		42.95	1.5%	40.2% 42.9%	7.6%	0.8%	15.5%	16.3%
49		6	124		0.02			0.01	0.40			=	1.9%	100.0% 100.0%	6.3% 1.7%	0.6%	44.9% 45.2%		0.02	0.51	0.05	0.00	0.16		50.7% 55.4%	1.5%	50.7% 55.4%	4.9%	0.4%	15.5% 18.4%	22.7% 22.2%
51		- 6	116	4	0.02	0.85	0.09	0.01	0.40	0 04	7		2.1%	100.0%	11.1%	1.1%	47.6%	55.8%	0.01	0.42	0.07	0.01	0.17	0.16	49.1%	1.4%	49.1%	7.7%	0.9%	19.9%	10.4%
52		10	137				0.12		0.30			-	13%	100.0%	12.7%	0.6%	31.1% 42.3%	38.4% 45.3%	0.01	0.42	0.09	0.01	0.13		41.2% 56.3%	1.0%	41.2% 56.3%	9.3% 2.4%	0.6%	11.0% 16.7%	16.0% 22.0%
54		11	139	4 10	0.02		0.02	0.01	0.50	0 05	0		15%	100.0% 100.0%	1.7% 20.0%	0.8%	44.6% 48.2%	44.6%	0.01	0.65	0.01	0.01	0.21	0.23	57.8% 40.8%	1.0%	57.8% 40.8%	1.1%	0.7%	19.0% 20.0%	19.9%
56		12	141		0.03	2.22	0.40		1.12				12%	100.0%	17.0%	0.9%	54.6%	51.4%	0.02	1.25	0.34		0.61		53.8%	0.9%	53.8%	11.3%	0.6%	26.0%	25.7%
57		14	142	10	0.04		0.05	0.01	1.0	4 1.4	1	=	1.4%	100.0%	2.0%	0.3% 0.3%	29.1% 49.6%		0.03	1,60	0.03	0.01	0.50	0.81	62.9% 57.3%	0.9%	62.9% 57.3%	1.1% 0.7%	0.2% 0.2%	18.7% 25.2%	30.4% 29.2%
59		16	144	10	0.04	247	0.00		13	H			1.3%	100.0%	2.8%	1.5%	49.0%	50.4%	0.02	128	0.04		0.64	0.49	46.7%	0.7%	46.7%	1.3%	1.3%	24.0%	10.4%
60 61 62		17	145				0.49	0.03	12	1 0.0		-	12% 13%	100.0%	19.8% 8.5%	1.1% 0.5%	50.2% 42.6%	39.5% 58.0%	0.02	1.05	0.35	0.02	0.53		42.9% 62.6%	0.9% 1.2%	42.9% 62.6%	14.1%	0.6%	21.6%	20.3% 34.7%
62		19	147	10	0.05	2.55	0.04	0.01	1.20	0 12			1.8%	100.0%	1.5%	0.3%	47.2%	40.6%	0.03		0.02	0.01	0.58	0.72	63.9%	1.2%	63.9%	0.9%	0.2%	22.9%	28.1%
63		20	148	10	0.04	2.47	0.06	0.01	1.20	0 12	2		1.6%	100.0%	2.5%	0.5%	48.5%	49.3%	0.02	1.49	0.04	0.01	0.61	0.64	60.3%	1.0%	60.3%	1.7%	0.5%	24.6%	26.1%

- M-patch High CH

	4cm2 PD(mWitcm2)														max ratio ou	of all beams												max ratio out of all b	нати		
П							4	4cm2 PD	(mW/cm	(2)			2.6%	100.0%	21.4%	2.4%	\$7.5%	61.2%	40	om2 PD(r	mW/cm2)	at 10mm eval	luation distr	nce	61.6%	1.0%	68.6%	14.9%	1.4%	26.0%	22.1%
No. M	odule Typ	e Seam ID_1	Sena ID,2		S4(Right)		SS(Top)			1(Front)	S2(Rear)	per Beam Back-off (dB)	ratio (Right 2mm)/(worst- surface 2mm)	ratio (Left 2mm)/(wont- surface 2mm)	ratio (Top 2mm)/(wont- surface 2mm)	ratio (Bottom 2mm)/(worst- surface 2mm)	ratio (Fornt 2mm)/(worst- surface 2mm)	ratio (Rear 2mm)/(wont- surface 2mm)			(SS(Top)		\$1(Front)		ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(wont- surface 2mm)	ratio (Left 10mm)/(worst- surface 2mm)	ratio (Top 10mm)/(wont- surface 2mm)	ratio (Bottom 10mm)/(wont- surface 2mm)	ratio (Front 10mm)/(wont- surface 2mm)	ratio (Rear 10mm)/(worst- surface 2mm)
1 2		0		-	0.00	0.33	0.01	0.0		0.13	0.12		0.3%	100.0%	2.1%	0.3%	38.2% 35.7%	34.8% 32.2%	0.00	0.14	0.01	0.00	0.04	0.05	42.7%	0.3%	42.7% 45.1%	1.5%	0.3%	11.0%	15.5% 12.7%
3		2		1	0.00	0.27	0.01	0.0		0.09	0.10		0.8%	100.0%	5.3%	0.4%	35.0% 40.4%	35.7%	0.00	0.12	0.01	0.00	0.03	0.03	44.4%	0.8%	44.4%	4.1%	0.4%	11.3% 11.3%	11.7%
3		4		-	0.00	0.15	0.02	0.0	22	0.10	0.08		2.6%	100.0%	6.6%	0.7%	55.3%	49.3%	0.00	0.07	0.01		0.03		43.4%	1.3%	43.4%	1.9%	0.7%	17.8%	15.0% 18.4%
6		- 5			0.01		0.07			0.19	0.19		15% 12%	100.0% 100.0%	13.6%	0.4%	40.4% 37.4%	19.3%	0.01			0.00	0.06	0.06	51.1%	1.3%	53.1% 56.7%	9.4% 5.8%	0.4%	11.4%	13.4% 19.7%
		7		2	0.01	0.51	0.01	0.0	22	0.23	0.25		12%	100.0%	1.6%	0.4%	44.4%	40.1%	0.01	0.28	0.01	0.00	0.08	0.10	55.8%	1.0%	55.8%	12%	0.4%	16.3%	20.0%
10		- 0	-			0.42				0.17	0.16	-	12%	100.0%	9.4%	1.0%	40.6% 30.8%	38.0%	0.00	0.18	0.03	0.00	0.07	0.05	42.3% 36.1%	0.6%	42.3% 36.1%	6.7% 6.4%	1.0%	16.3%	12.7%
11		10		2	0.01		0.03			0.23	0.28		1.1%	100.0%	5.5%	0.2%	41.5%	50.6%	0.00	0.22	0.01		0.07	0.12	60.0%	0.7%	60.0%	2.6%	0.2%	13.3%	21.8%
12		11		5	0.00		0.01	0.0	22	0.31	0.25		0.6%	100.0%	1.3%	0.3%	46.3% 38.9%	36.3% 32.3%	0.00	0.54	0.15	0.00	0.10	0.18	50.6% 40.6%	0.5%	58.6% 48.6%	0.7% 13.6%	0.3%	15.3% 15.9%	15.6% 16.0%
14		12			0.01	1.12	0.23			0.52	0.47		0.9%	100.0% 100.0%	20.2%	0.4% 0.2%	45.8% 41.3%		0.01		0.12	0.00	0.22	0.23	60.0%	0.7%	60.0%	10.8%	0.2%	19.7% 17.5%	20.2%
16		15		5	0.02	1.22	0.01	0.0	22	0.61	0.60		1.5%	100.0%	0.8%	0.2%	46.6%	45.7%	0.01	0.00	0.01	0.00	0.28	0.32	61.4%	0.9%	61.4%	0.4%	0.2%	21.4%	24.4%
17		17	-	5 5	0.01	1.36	0.04			0.68	0.45	-	0.7%	100.0%	2.6%	1.0%	50.0% 41.8%	32.8% 33.2%	0.01		0.02	0.01	0.31	0.16	51.0%	0.6%	\$1.0% \$2.1%	13.2%	0.8%	22.7% 17.3%	11.8%
19		18		5	0.01	1.17	0.09	0.0		0.51	0.61		0.8% 1.5%	100.0% 100.0%	7.7%	0.2% 0.2%	43.5% 45.5%	52.1% 57.9%	0.01	0.74	0.03	0.00	0.23	0.34	63.8%	0.7%	63.8%	2.8% 0.5%	0.2%	19.7% 19.8%	28.8% 30.5%
21		20		5	0.02	1.27	0.02	0.0	22	0.65	0.47		1.1%	100.0%	1.7%	0.2%	50.9%	37.0%	0.01	0.75	0.02	0.00	0.31	0.40	51.1%	0.8%	58.8%	1.3%	0.2%	24.7%	19.7%
22		128	_	-	0.00	0.20	0.01	0.0		0.06	30.0		1.0%	100.0% 100.0%	4.0%	1.5%	31.3% 31.6%	28.8%	0.00		0.01	0.00	0.02	0.02	40.4% 37.4%	0.5%	40.4% 37.4%	2.1%	1.0%	9.1%	9.6%
24		120				0.21	0.01	0.0	22	0.06	0.07		0.9%	100.0%	4.7%	0.5%	28.5%	24.6%	0.00	0.09	0.01	0.00	0.02	0.03	41.9%	0.5%	41.9%	1.1%	0.5%	9.8%	15.9%
25		131	-	-	0.00	0.19	0.01	0.0	30	0.07	0.06	+-	1.0%	100.0% 100.0%	525 435	125	17.5% 19.9%	32.5%	0.00	0.08	0.01	0.00	0.02	0.02	40.1% 40.5%	1.65	40.1% 40.5%	115	0.5%	10.9%	10.4%
27		133		2	0.00	0.35	0.02			0.12	0.12		1.1%	100.0% 100.0%	5.4% 3.6%	1.7%	36.9% 39.1%	33.0% 37.2%	0.00		0.01	0.00	0.05	0.05	40.1% 52.1%	0.9%	40.1% 52.1%	2.7% 2.6%	1.1%	11.6% 15.1%	15.3% 16.4%
29		135		2	0.00	0.44	0.00	0.0	30	0.16	0.14		0.5%	100.0%	0.9%	0.2%	27.0%	37.6%	0.00			0.00	0.06	0.07	52.6%	0.5%	52.6%	0.5%	0.2%	13.8%	16.1%
30		136	_		0.01		0.03			0.11	0.18		1.6%	100.0% 100.0%	6.8%	0.8%	30.3% 32.2%	48.9% 36.2%	0.00			0.00	0.04	0.08	41.6%	1.1%	41,6%	4.6% 7.1%	0.8%	10.3% 12.0%	20.8% 18.2%
	M Pate	h 120		2	0.00	0.42	0.01	0.0	22	0.16	0.15		1.0%	100.0%	2.0%	0.3%	29.3%	16.8%	0.00	0.22	0.01	0.00	0.06	0.06	54.0%	0.8%	54.0%	1.5%	0.2%	15.3%	16.0%
33		129	-		0.01	0.28	0.01			0.15	0.16	+-	2.3%	100.0%	2.6%	10%	29.7% 39.4%		0.01				0.06	0.06	41.05 38.45	145	41.0% 38.4%	1.6%	12%	14.4%	14.4%
35		141			0.01		0.11			0.32	0.39		15%	100.0%	12.9%	1.1% 0.2%	38.7% 46.7%	47.3% 34.8%	0.01			0.01	0.16	0.21	46.5% 62.1%	1.0%	46.5% 62.1%	8.9%	0.7%	19.7% 22.0%	25.6% 18.5%
37		143	_		0.01	0.94	0.01	0.0		0.40	0.36		1.5%	100.0%	1.2%	0.3%	42.0%	28.6%	0.01		0.01	0.00	0.18	0.17	56.8%	1.1%	56.8%	0.8%	0.3%	19.2%	22.9%
38		144	_	5	0.02	1.23	0.02	0.0	22	0.28	0.69		1.5% 2.1%	100.0% 100.0%	1.5% 17.7%	1.5%	22.4% 38.6%	55.8% 44.2%	0.01	0.41	0.01	0.02	0.12	0.10	31.5% 40.3%	0.9%	11.5% 40.3%	0.9%	1.3%	9.6%	24.0% 22.3%
40		146		5	0.02	0.91	0.08	0.0	22	0.35	0.39		1.7%	100.0%	1.25	0.3%	18.5%	43.1%	0.01	0.50	0.03	0.00	0.17		55.7%	1.2%	55.7%	1.6%	0.2%	19.2%	25.2%
41		147	-	5	0.02	1.02	0.02	0.0	50	0.42	0.31	-	1.9%	100.0%	1.1%	0.2% 0.3%	47.1% 36.7%	40.4%	0.01	0.50	0.01		0.20	0.18	61.0% 49.4%	0.7% 1.25	61.0% 49.4%	0.8% 1.3%	0.2%	22.1% 15.5%	19.9% 27.0%
43		0	128	2	0.01	0.65	0.02			0.22	0.22		0.8% 0.8%	100.0%	2.6%	0.6%	34.6% 35.2%	33.4% 36.9%	0.00	0.28	0.01	0.00	0.08	0.09	43.7%	0.6%	43.7% 40.6%	2.0%	0.5%	12.1% 16.5%	13.9% 15.4%
45		2	130	2	0.01	0.53	0.04	0.0	30	0.17	0.19	_	0.9%	100.0%	7.1%	0.6%	31.6%	35.7%	0.00	0.23	0.02	0.00	0.05	0.06	42.9%	0.8%	42.9%	5.3%	0.6%	10.0%	11.7%
46		3	131	2	0.01		0.04			0.18	0.21		1.6% 2.1%	100.0% 100.0%	8.8% 9.0%	0.6%	16.5% 57.5%	42.3% 51.2%	0.01			0.00	0.07	0.07	48.9% 42.5%	1.0%	48.9% 42.5%	5.2% 5.7%	0.6%	13.4% 18.3%	13.6% 18.9%
40		- 5	123	4	0.02	0.00	0.09	0.0	21	0.29	0.10		2.2%	100.0%	10.2%	1.2%	44.6%	33.6%	0.02		0.07	0.01	0.14	0.13	45.8%	1.7%	45.8%	7.5%	0.8%	16.3%	15.2%
49		- 6	124			0.91				0.41	0.43	-	1.5%	100.0%	7.2%	0.6%	45.0% 41.2%		0.01				0.15	0.21	54.9% 55.2%	1.2%	54.9% 55.2%	4.8% 1.1%	0.3%	16.4% 17.2%	23.0%
50 51		-	116			1.02				0.38	0.45		12%	100.0%	12.1%	12%	44.6% 27.9%	52.7%	0.01			0.01		0.14	47.3%	1.2%	47.3% 44.3%	8.2% 16%	1.1%	18.5%	16.8%
53		10	138		0.01	0.90	0.05	0.0	30	0.38	0.41	1	1.3%	100.0%	5.1%	0.2%	41.0%	45.5%	0.01		0.02	0.00	0.15	0.15	56.8%	0.9%	56.0%	2.3%	0.2%	16.1%	20.5%
54		11	139 140	4	0.01	1.12	0.02	0.0		0.49	0.46		12% 16%	100.0% 100.0%	2.0%	0.7% 1.7%	41.2% 46.8%	40.7% 39.0%	0.01	0.63	0.01	0.01	0.20	0.20	56.3% 44.9%	0.9%	56.3% 44.9%	1.2%	0.7%	17.7% 20.2%	18.0% 20.2%
56		12	141		0.03		0.42	0.0	22	1.14	1.19		1.1%	100.0%	18.5%	0.9%	50.0%	52.5%	0.02				0.59		59.7%	0.9%	59.7%	10.0%	0.6%	26.0%	26.4%
57		14	142		0.04	2.63	0.05			0.99	1.49	⊢=	1.6%	100.0% 100.0%	1.9%	0.3% 0.2%	37.5% 47.9%		0.03		0.03		0.47	0.77	66.3%	1.0%	66.3% 58.6%	1.1%	0.2%	17.7%	29.4% 26.9%
55		16	144			2.87	0.08	0.0		129	142	=	14%	100.0%	2.7%	15%	44.0%		0.03	1.34	0.05	0.04	0.64		46.8%	10%	46.8% 48.0%	1.0%	1.4%	22.1% 22.4%	18.1%
61		18	146	10	0.04	2.51		0.0	21	1.10	0.94 1.45	-	1.5%	100.0%	20.4% 9.5%	0.3%	48.9% 43.8%	57.7%	0.03	1.66		0.01		0.80	41.0% 66.1%	1.1%	66.1%	14.2%	0.2%	22.5%	32.0%
62		19	147			2.50				1.14	1.31		1.8%	100.0% 100.0%	1.0%	0.2% 0.4%	45.6% 49.7%		0.02			0.00	0.53	0.71	65.8% 54.6%	1.0%	65.8% 54.6%	0.7% 1.5%	0.2%	21.2% 25.0%	28.5% 25.4%
63		20	148	10	u01	253	0.06	. 0.0	21	1.26	1.15		1.3%	100.0%	4.2%	0.4%	49.7%	45.3%	0.02	1.38	0.04	U.01	U.63	0.64	54.6%	0.9%	54.6%	1.5%	0.4%	45.0%	Δ4%

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

- M-patch Low CH

															max ratio ou	t of all beams												max ratio out of all b	eams		
П								4cm2	PD(mW/cn	m2)			19%	100.0%	19.0%	2.2%	66.7%	56.5%	40	om2 PD(m	W/cm2) a	t 10mm evalu	ution dista	nce	63.4%	2.0%	63.4%	12.6%	2.0%	16.0%	15.8%
No. 1	Accluse Typ	pe Beam I)_1 Semal	D,2 Fe	ed no.			Т				per Beam	ratio	ratio	ratio	ratio (Bottom 2mm) //wont-	ratio (Fornt 2mm)//wont-	ntio	S4(Right)			S6(Bottom)			ratio	ratio (Right 10 mm)//worst-	ratio	ntio	ratio (Sottom	ratio	natio
					5	4(Right) S3(Let	m) SS(To	sp) S6)	(Bottom)	\$1(Front)	S2(Rear)	Back-off (dB)	(Right 2mm)/(worst- surface 2mm)	(Left 2mm)/(wont- surface 2mm)	(Top 2mm(/(wont- surface 2mm)	surface 2mm)	surface 2mm)	(Rear 2mm)/(wont- surface 2mm)	54(kight)	Sa(Latt)	SS(Top)	Selections	\$1(Front)	S2(Rear)	worst-surface (10mm/2mm)	surface 2mm)	(Left 10mm)/(wonst- surface 2mm)	(Top 10mm)/(wont- surface 2mm)	10mm(/(worst- surface 2mm)	(Front 10mm)/(wont- surface 2mm)	(Rear 10mm)/(wont- surface 2mm)
2		0	_	_		0.00 0.25	0.01		0.00	0.09	0.09		0.4%	100.0%	2.8% 5.4%	0.4% 0.5%	34.5% 28.5%	33.7% 33.5%	0.00	0.11	0.01	0.00	0.03		45.2% 41.2%	0.4%	45.2% 41.2%	2.0% 4.1%	0.4%	10.7%	14.2%
3		2			1	0.00 0.23	0.00	2	0.00	0.06	0.09		0.9%	100.0%	7.5%	0.4%	27.6%	19.0%	0.00	0.09	0.01	0.00	0.02	0.04	37.7%	0.4%	37.7%	4.8%	0.4%	9.6%	15.4%
5		3	+	+	1	000 020	0.00		0.00	0.07	0.09	-	1.5%	100.0%	7.8% 5.0%	0.5% 0.5%	35.3% 38.5%	44.1% 44.2%	0.00	0.09	0.01	0.00	0.02		42.2%	1.0%	42.2% 48.0%	5.4% 2.7%	0.5%	10.3% 15.4%	20.6%
6		5	_	_	2	0.01 0.22	0.00		0.00	0.13	0.20		1.3%	100.0%	11.7%	0.8%	12.8%	50.6%	0.00	0.16	0.03	0.00	0.04	0.11	40.5% 61.0%	1.0%	40.5%	7.1%	0.5%	9.7% 16.1%	27.7%
6		7		_	2	0.00 0.50	0.00	2		0.19	0.18		0.4%	100.0%	2.0% 6.2%	0.2% 0.6%	41.2% 37.2%	26.2%	0.00	0.23	0.02		0.07		44.2%	0.2%	61.0% 44.3%	12%	0.2% 0.6%	12.2%	11.2%
10		- 8	+	+	2		0.00		0.00	0.16	0.15	⊢	0.4%	100.0%	5.4% 1.25	0.8%	29.9% 34.0%	29.0% 44.7%	0.00	0.17	0.02	0.00	0.05		32.2% 50.2%	0.2%	12.2% 50.2%	4.0% 2.4%	0.6%	10.4% 13.8%	15.2% 25.3%
11		10		-		0.01 0.31	0.00		0.00	0.16	0.16		1.3%	100.0%	6.6% 10.4%	0.3%	42.5% 35.4%	42.0% 41.4%	0.00	0.21	0.01	0.00	0.07	0.07	55.4% 30.2%	1.1%	55.4% 30.3%	1.2% 6.3%	0.3%	17.2% 12.9%	17.9% 19.2%
12		12			5	0.01 0.90	0.14	4	0.01	0.28	0.45		0.9%	100.0%	15.5%	1.5%	31.5%	50.1%	0.01	0.29	0.09	0.01	0.11	0.27	41.8%	0.6%	43.8%	10.4%	1.3%	11.8%	20.2%
15		13		+			0.00		0.00	0.40	0.50	-	0.9%	100.0%	2.6%	0.2% 0.2%	40.7% 48.2%	51.6% 41.7%	0.01	0.66	0.02	0.00	0.19		57.1% 63.4%	0.7%	57.1% 63.4%	1.5%	0.2%	19.6% 22.9%	32.3% 24.1%
16		15		#			0.00		0.00	0.35	0.34		2.1%	100.0%	9.7% 18.0%	0.4%	42.5% 11.8%	40.6%	0.01	0.48	0.04	0.00	0.17	0.17	57.4% 37.1%	14%	57.4% 17.1%	5.0% 12.4%	0.4%	20.9% 11.1%	20.5%
18		17		_	5	0.01 0.84	0.13	1	0.01	0.27	0.46		0.9%	100.0%	15.0%	0.8%	32.1%	54.0%	0.01	0.22	0.07	0.01	0.10	0.30	46.3%	0.7%	46.3%	7.9%	0.7%	12.1%	35.8%
20		19		+		001 1.05	0.00		0.00	0.48	0.49	-	0.7% 1.2%	100.0%	1.4%	0.2% 0.3%	45.1% 46.5%	46.0% 36.7%	0.01	0.63	0.01	0.00	0.23	0.31	59.9% 62.6%	0.6%	59.9% 62.6%	0.8% 2.1%	0.1%	21.5% 22.3%	29.0%
21		20 128		_	5	0.02 0.97	0.11		0.01	0.38	0.41	110	1.5%	100.0% 70.8%	19.8%	0.5% 0.5%	29.4% 59.8%	42.0% 16.4%	0.01	0.40	0.12	0.00	0.19	0.19	41.1% 25.6%	0.9%	41.1% 25.6%	12.6%	0.4%	19.5% 25.6%	19.6%
22		129				0.00 0.14	0.01		0.00	0.11	0.05	1.00	1.7%	79.4%	1.9%	0.6%	60.1%	27.0%	0.00	0.06	0.01	0.00	0.05	0.02	31.4%	1.1%	21.4%	2.8%	0.6%	24.8%	11.6%
25		120		-	-	0.00 0.12	0.01	_	0.00	0.07	0.05	├	1.4%	100.0%	6.1%	0.7%	46.3% 53.8%	36.1% 41.7%	0.00	0.06	0.01	0.00	0.02	0.02	42.2%	0.7%	42.2% 45.5%	14%	0.7%	16.3% 17.4%	13.6%
26		132	_	=	2	0.00 0.10	0.0		0.00	0.09	0.07		1.9%	100.0%	5.2% 9.9%	0.0%	55.5% 45.7%	45.8% 39.8%	0.00	0.08	0.00	0.00	0.03		45.4%	1.3%	48.4% 47.2%	2.6% 5.2%	0.6%	16.8%	16.8% 17.0%
28		124		_	2	0.00 0.25	0.00	1	0.00	0.17	0.10	0.50	1.4%	89.1%	3.6%	0.4%	62.5%	34.9%	0.00	0.11	0.01	0.00	0.10	0.05	29.5%	1.1%	29.5%	2.2%	0.4%	15.6%	18.0%
30		135		+		000 033	0.00		0.00	0.17	0.13	1.50	1.2%	100.0% 70.8%	4.0% 5.2%	0.3% 0.8%	\$1.1% 66.7%	38.9% 23.6%	0.00	0.17	0.01	0.00	0.08	0.06	50.8% 25.9%	0.6%	50.8% 25.9%	2.4% 1.6%	0.3%	22.8% 18.8%	17.0% 9.9%
21	M Dw	th 125		_			0.00		0.00	0.12			1.1%	100.0%	8.9% 5.0%	0.7% 0.5%	45.9% 58.0%	49.6% 54.5%	0.00	0.15	0.01	0.00	0.06	0.06	55.2% 62.0%	0.7% 1.5%	55.2% 62.0%	4.8% 2.5%	0.7%	20.4% 25.5%	20.7%
22		139			2	0.00 0.32	0.00	2	0.00	0.16	0.09		0.9%	100.0%	7.1%	0.3% 1.5%	50.6% 57.9%	26.4%	0.00	0.15	0.01		0.07		46.6%	0.6%	46.6%	4.3%	0.3% 1.4%	22.0% 21.0%	9.6%
35		140				0.02 0.50	0.00	3	0.00	0.41	0.28	-	2.7%	100.0%	13.5%	0.3%	62.9%	33.7% 47.7%	0.01	0.20	0.06	0.00	0.16	0.13	42.4% 48.0%	1.5%	42.4% 48.0%	8.6% 2.9%	0.2%	31.0%	15.7% 22.7%
36		142	_	$^{+}$			0.00		0.00	0.33	0.23	1.00	1.9%	79.4% 89.1%	195	0.4%	61.9% 60.6%	43.6% 22.5%	0.02	0.18	0.01	0.00	0.19		35.0% 45.9%	2.8%	32.8% 46.9%	1.9%	0.4%	36.0% 31.3%	19.8%
38		144		_	5	0.02 0.71	0.00		0.01	0.53	0.19	0.50	3.0%	89.1%	9.6%	0.8%	66.2%	27.0%	0.02	0.25	0.05	0.01	0.21	0.09	44.5%	1.9%	44.5%	6.4%	0.8%	26.1%	11.5%
40		146		\pm	5		0.10		0.01	0.39	0.35	0.50	1.0%	100.0%	13.1%	1.3%	49.5% 54.6%	41.0%	0.01	0.46	0.06	0.01	0.18	0.17	59.5% 40.3%	0.8%	\$9.5% 40.3%	7.6% 1.7%	1.2%	21.3% 29.4%	22.4% 17.2%
41		147		Ŧ			0.00			0.45		0.50	1.6%	100.0%	125	0.4% 0.4%	65.7% 61.4%	30.5% 23.1%	0.01	0.34	0.01		0.22		49.8% 50.4%	0.9%	49.8% 50.4%	1.9%	0.2%	32.4% 30.8%	14.0% 9.7%
31 4 4 5 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		0			2	0.01 0.53	0.00	2	0.00	0.25			1.1%	100.0%	1.0%	0.6%	46.7% 41.1%	29.6%	0.00	0.23	0.01		0.10		43.5% 38.6%	0.8%	43.5% 18.6%	2.3% 4.7%	0.4%	18.5%	13.4%
45		2	130		2	0.00 0.47	0.00	2	0.00	0.16	0.19		0.9%	100.0%	6.0%	0.6%	11.6%	19.8%	0.00	0.17	0.02	0.00	0.06	0.08	31.9%	0.6%	38.9%	4.0%	0.6%	12.8%	16.0%
46		3					0.04		0.00	0.19		⊢=	1.4%	100.0%	8.7% 4.5%	0.7% 0.4%	42.8% 45.2%	43.9% 43.7%	0.00	0.19	0.02	0.00	0.07		44.2%	0.9%	44.2% 47.0%	5.5% 2.6%	0.5%	15.1% 16.2%	17.2% 19.1%
40		- 3	133		4	0.01 0.91	0.12	2	0.01	0.33	0.37		1.0%	100.0%	12.6%	1.0%	36.0%	40.0%	0.01	0.41	0.07	0.01	0.14		44.6% 52.9%	0.9%	44.6%	7.7%	1.0%	14.0%	22.3% 21.2%
50		7	125		4	0.01 0.01	0.00		0.01	0.39			1.1%	100.0%	6.0%	0.3%	51.3% 45.4%	10.0%	0.01	0.29	0.04	0.00	0.19		41.2%	0.7%	52.9% 48.2%	2.2% 4.6%	0.1%	27.8% 23.1%	11.0%
51		9	130				0.00			0.46	0.28	F	13%	100.0%	6.5% 0.4%	1.0%	46.1% 37.2%	26.6% 49.2%	0.01		0.05	0.01	0.16		31.1% 54.4%	0.7%	31.1% 54.4%	4.4%	0.9%	15.5% 15.2%	12.8%
53		10	138			0.01 0.70			0.00	0.36	0.33		13%	100.0% 100.0%	5.4% 13.2%	0.3% 0.7%	51.1% 48.2%	46.0% 40.7%	0.01	0.43	0.02	0.00	0.15	0.15	61.3% 36.6%	1.1%	61.3% 16.6%	2.9% 8.2%	0.3%	21.7% 25.3%	21.4%
55		11	140		10	0.04 2.12	0.1	+	0.01	0.29	0.97		1.9%	100.0%	17.5%	2.2%	18.5%	45.8%	0.03	0.29	0.07	0.01	0.38	0.55	44.2%	1.2%	44.2%	11.5%	2.0%	18.0%	26.1%
56		13				0.03 1.99	0.00		0.01	0.82	1.12		1.4%	100.0%	1.5% 2.5%	0.3% 0.3%	41.4% 48.7%	56.5% 43.1%	0.02	1.14	0.04	0.01	0.35		57.4% 60.5%	1.2%	57.4% 60.5%	2.1%	0.3%	19.0% 25.3%	34.5% 24.7%
58		15	142			0.05 1.90	0.1	7	0.01	121	0.71		2.8% 2.1%	100.0%	9.0% 18.2%	0.5% 1.6%	64.5% 53.5%	37.3%	0.04		0.11	0.01	0.65	0.34	57.1% 40.5%	195	57.1% 40.5%	5.7% 12.1%	0.4% 1.6%	11.9% 22.7%	17.7% 23.7%
60		17	145	5	10	0.01 2.21	0.31	1	0.03	0.81	1.07		1.2%	100.0%	14.1%	1.4%	16.6%	40.5%	0.02	1.15	0.16	0.03	0.34	0.64	52.0%	0.8%	52.0%	7.1%	1.3%	15.5%	29.0%
61		18				002 203	0.00		0.01	0.97	1.01	⊢=	12%	100.0%	2.5%	0.3%	42.8%	49.7%	0.02	1.21	0.03	0.01	0.42		59.5% 57.2%	1.1%	59.5% 57.5%	1.4%	0.2%	20.8% 25.2%	29.7%
63		20					0.23			1.37		0.50	1.7%	89.1%	14.8%	0.5%	60.7%		0.02				0.76		44.0%	1.1%	44.0%	9.6%	0.4%	33.4%	16.0%

- M-patch Mid CH

														T			max ratio ou	t of all beams												max ratio out of all I	oeams .		
No. Mark Property Propert	\Box								4cm2	PD(mW)/	cm2)			2	es	100.0%	15.7%	2.2%	66.2%	66.7%	4	om2 PD((mW/cm2)	at 10mm ev	valuation d	istance	66.0%	2.1%	66.0%	10.1%	2.0%	15.7%	38.1%
	No. Mos	dule Type	Beam ID_1	Sema ID ₂ 2	Feed no.				Τ.,																						(Bottom		
1						S4(Right	53(Left)	\$5(Top	p) 56	(Eottorn)	\$1(From	t) 52/Re	Back-	off (Right 2n	m(y/(worst- 2mm)	(Left 2mm)/(wont- surface 2mm)	(Top 2mm(/(wont- surface 2mm)	(Bottom 2mm)/(worst- surface 2mm)	(Fornt 2mm)/(wonst- surface 2mm)	(Rear 2mm)/(wont- surface 2mm)	S4(Right)	53)Lef	t) SS(Top	(SE(Botton	m) S1(Fr	nt) S2/Res	(10mm/2mm	(Right 10mm)/(wont- surface 2mm)	(Left 10mm)/(wont- surface 2mm)	(Top 10mm)/(wont- surface 2mm)		(Front 10mm)/(wont- surface 2mm)	(Rear 10mm)/(worst- surface 2mm)
			0									0.1	,																				
The column 1			-	_								0.0	-																				
1	4				1	0.00	0.25	0.02		0.00	0.08			1	2%	100.0%	6.8%	0.4%	32.5%	45.0%	0.00	0.10	0.01	0.00	0.0	0.04	41.4%	0.8%	41.4%	4.0%	0.4%	10.8%	17.7%
The column 1	5		4		1		0.25																										18.1%
1	7		- 6	_	2	0.00	0.48	0.05	+	0.00	0.15	0.2	-									0.15	0.01	0.00	0.0	0.12				1.1%			
1			7		2	0.00	0.59	0.02				0.11	_		7%	100.0%			41.5%	12.0%									52.3%	2.2%			14.5%
	9			_																26.4%													
1	11		10	_	- 2	0.00	0.50	0.03	_	0.00	0.21	0.11			8%	100.0%	5.6%	0.2%	41.2%	37.8%	0.00	0.26	0.02	0.00	0.0	0.10	51.9%	0.6%	51.9%	2.4%	0.2%	16.5%	19.5%
1	12				2																												
1	13			_	5																												
1	15					0.01	1.26	0.01		0.00					6%		0.9%		49.4%	19.7%					0.3	0.30	64.0%		64.0%			21.5%	
1	16				5																												
	17			_																													
The column The	19		- 10		5	0.01	1.27	0.01		0.00	0.65	0.5			6%	100.0%	0.9%	0.1%	51.0%	41.3%	0.01	0.84	0.01	0.00	0.3	0.33	66.0%	0.5%	66.0%	0.6%	0.1%	24.2%	26.0%
The column 1	20																																
1	21			-																													
1	23		129		1	0.00	0.16	0.01		0.00	0.12	0.00	1.0	1	0%	79.4%	3.5%	0.5%	59.2%	24.7%	0.00				0.0	0.02	37.5%	1.0%	27.5%	2.0%	0.5%	25.7%	9.4%
1	24				1	0.00	0.18					0.0										0.06	0.01	0.00									
1	25			_	1	0.00	0.20					0.0	-										0.01										
The column 1	27				2	0.00	0.21					0.12	_				8.0%		44.0%										40.6%				14.1%
The column 1	28						0.22					0.1	0.5									0.15											
1	30			-			0.40	0.02				0.11	10									0.22											
1	21				2	0.00	0.36	0.02		0.00	0.18	0.13			6%		6.4%	0.3%		16.2%	0.00	0.15	0.01	0.00	0.1	0.06	43.0%	0.6%	43.0%	1.6%	0.2%		
1	32 A	6 Patch																															
1	34			_						0.00			-																				
1	35		141		5	0.02	0.78	0.02			0.52	0.3		2	4%				66.2%	28.8%	0.01	0.25	0.01	0.00	0.2	0.15	44.5%						18.6%
1	36		142		5	0.02	984	0.03	-	0.00			10	I	65	79.4%	245	625	49.4%									1.05	22.2%		9.1%	20.35	15.4%
Column C	20			_																							41.15						
1	29		145																														
The column The				_																													
1	41			_								0.9	0.5																				
1	43		0	128	2	0.01	0.67	0.02	Н	0.00	0.30	0.1							44.5%	28.2%		0.22	0.01	0.00	0.1	0.09	49.1%		49.1%				13.4%
1	44		1	129	- 2	0.00	0.58	0.02	-	0.00	0.25	0.1	Ĭ									0.22	0.02		0.1	0.00							
## 15 1	46		1	121	2	0.01				0.00																							
1	47																																
1	48		- 5												6%			0.7%															
1	50		7																														
1	51				4	0.01	1.24	0.05			0.53	0.3			0%	100.0%			42.3%	24.1%	0.01	0.42	0.03	0.01	0.2	0.12	34.9%	0.7%	14.9%	2.7%			
T	52			127						0.01			Ī									0.44	0.04	0.01									
10	- 53		- 10	128									-	-	95	100.0%		125	11/0	12.9%	0.01	0.58	0.03	0.00				1.0%	942% 942%	11%	0.2%	21.1%	21.4%
V	55	- 1			10	0.02	2.21	0.32		0.05				1	0%			2.2%	41.3%	41.2%	0.01	0.00			0.4	0.51	36.2%		16.2%			20.0%	23.0%
13	56	- 1																															
13	57	- 1																															
8	59	- 1	16	144	10	0.02	2.77	0.36		0.03					7%	100.0%	12.9%	1.2%	45.9%	29.9%		1.15	0.24	0.01			41.5%	0.4%	41.5%	1.7%	1.0%	19.5%	15.4%
12 19 147 10 005 224 007 031 137 1311 235 10095 235 035 4335 033 139 034 031 037 375 135 375 135 035 325 325	60	- 1																															
	61	- 1																															
	63		20	140							1.14	0.90	0.5	1	5%	89.1%	10.6%	0.4%	42.8%									1.0%	44.9%	7.2%	0.3%	19.6%	16.9%

- M-patch High CH

March Type No. Co. March Type No. Co. March Type																max ratio ou	t of all beams												max ratio out of all I	eatis.		
No. Mark M		Т						4	om2 PD(n	W/cm2	0			1.8%	100.0%	20.6%	2.0%	65.1%	43.0%	40	om2 PD/m	W/on2) a	t 10mm eval	uation dista	nce	68.5%	1.1%	68.5%	12.2%	1.8%	37.2%	26.59
Value Valu	e Type	pe Se	um ID_1	Berna ID,2	Feed no.	54(Righ	S3(Left)	SS(Top)	S6(Bots	om) 51	(Front)	S2(Rear)	Beam	(Right 2m m)/(worst-	(Left 2mm)/(wont-	(Top 2mm)/(wont-	(Bottom 2mm)//worst-	(Fornt 2mm)/(worst-	(Rear 2mm)/(wont-	S4(Right)	S3(Left)	SS(Top)	S6(Bottom)	S1(Front)	S2(Rear)	worst-surface	(Right 10 mm)/(worst-	(Left 10mm)/(worst-	(Top 10mm)//wont-	(Sottom 10mm)/(wont-	(Front 10mm)/(wont-	ratio (Rear 10mm) surface 2
## 1	+	+	0		1	0.00	0.34	0.00				0.10	(49)								0.18			0.04						0.3%		12.9
1		┍	- /		-				0.00							2.5%					0.13								1.8%			14.
							0.22	0.02	0.00					0.3%			0.3%	35.7%	31.5%							47.7%	0.3%	47.7%	3.3%		11.1%	12
					-	0.00						0.11									0.16											- 1
1			6				0.60	0.01	0.00		0.28	0.22		0.7%	100.0%	1.2%	0.2%	47.5%	26.7%	0.00	0.22	0.01	0.00	0.11	0.12	61.2%	0.2%	63.3%	0.8%	0.2%	19.0%	- 21
1																																
1		\vdash	9		2		0.61	0.01	0.00		0.23			0.7%	100.0%	2.1%	0.5%	18.6%	24.2%	0.00	0.22	0.01	0.00			51.9%	0.3%	51.9%	1.5%	0.5%	16.3%	1
1																					0.34											
1			12													13.6%		12.8%	19.4%		0.52				0.31		0.4%					2
1	1		5									0.55																				2
	1		15		- 5	0.01	1.00	0.05	0.00		0.48			1.1%	100.0%	4.6%	0.3%	48.3%	43.0%	0.01	0.52	0.03	0.00	0.22	0.26	53.6%	0.6%	51.6%	2.9%	0.2%	22.5%	- 2
1	1												L																			
1	1		18		- 5	0.01	1.48	0.01	0.00		0.79	0.57		0.4%	100.0%	0.9%	0.1%	53.7%	38.3%	0.01	1.01	0.01	0.00	0.38	0.34	60.5%	0.4%	68.5%	0.6%	0.1%	25.5%	
1																																
10		⊢	128		1							0.07	1.50				0.2%				0.10								2.4%			
10			129		1				0.00	Ī			1.00	0.7%	79.4%	2.6%	0.4%	51.9%			0.10					25.7%	0.4%	35.7%	1.8%	0.4%	21.3%	
1			131				0.21	0.02	0.00					0.7%		7.4%	0.4%	45.7%									0.4%	28.7%	4.6%	0.4%	21.6%	
10					-									1.8%	100.0%	62%	0.9%	54.7%	39.1%								0.9%	43.1%	4.0%	0.9%	21.3%	
10													0.50								0.17											
15		⊏	135												100.0%	7.7%	0.2%				0.22									0.2%		
1			137		2								1.50				0.5%											46.4%	2.2%			
1	Patcl				2									1.3%	100.0%	4.2%	0.2%										0.7%		1.9%	0.2%		
10			140											12%			12%	44.5%	10.9%							41.9%	0.6%	48.9%	12.3%	1.2%	19.0%	-
10					5								į				0.3%				0.48								2.0%			
10		⊢	142																													_
1					5							0.34	0.50					18.2%			0.41											
15			146		5							0.25	0.50		89.1%	1.25	0.3%	44.2% 54.4%			0.28							42.5% 46.0%	1.6%	0.2%	19.0%	
1			147		- 5		1,19	0.06	0.00							4.7%	0.3%												1.4%	0.2%	16.4%	
1	1	-	0	128	1 2		0.74	0.02	0.00	-	0.32	0.10 0.23	0.50	13%	100.0%	2.4%	0.4%	42.8%	30.4%								0.7%	52.1%	18%	0.4%	15.7%	1
1	1	F	1		2		0.67	0.02	0.00			0.17									0.30											
4 10 4 10 10 10 10 10 10 10 10 10 10 10 10 10	1	-	î	131	2	0.01			0.00					0.6%	100.0%	7.1%	0.5%	38.0%	28.0%	0.00		0.04		0.11	0.09	42.5%	0.4%	42.5%	4.6%	0.4%	13.6%	
1		F	4		2							0.26					0.4%															
1		⊢	6									0.19					0.8%	15.7% 51.1%			0.49							40.0% 58.8%		0.7%		
1 19 1 1 19 10 10 10 10 10 10 10 10 10 10 10 10 10		⊏	7		4	0.01			0.01			0.30		12%	100.0%	7.2%	0.5%	27.7%	33.0%								0.7%	44.9%	4.5%	0.5%	17.5%	
11 15	1	\vdash	9	137	- 4	0.02	1.00	0.03	0.01			0.32		1.4%	100.0%	3.2%		45.2%	30.0%	0.01	0.51	0.02	0.01	0.22	0.17	47.5%	0.7%	47.5%	2.1%	0.7%	20.7%	-
U 16, U 16, U 17,	1	F	10									0.46									0.78											
11 12 13 13 14 15 15 15 15 15 15 15	1	-	12								1.10	1.04									1.18				0.60							- 1
1	1	⊨		141		0.03	2.67	0.06	0.01					1.0%	100.0%	2.4%	0.3%	56.9%	37.6%	0.01	1.57	2	0.01	0.81		51.1%	0.5%	58.8%	1.3%	0.2%	30.2%	2
8 14 0 153 15 15 15 15 15 15 15 15 15 15 15 15 15	1	-	15		10	0.03	2.85	0.19	0.01	\neg				1.0%	100.0%	6.6%		59.3%	31.2%	0.02	1.52	0.13	0.01				0.6%	53.4%	4.5%	0.2%	21.2%	
18 146 10 003 256 0.04 0.01 1.65 1.05 0.0% 100.0% 1.3% 0.2% 55.8% 35.6% 0.01 1.85 0.03 0.01 0.81 0.65 62.6% 0.5% 62.6% 1.0% 0.2% 27.3%	1	⊨	16	144		0.01	2.54	0.45	0.03	\neg		1.05		0.9%	100.0%	14.2%		49.6%	33.3%	0.02	1.44	0.30	0.02	0.68	0.54	45.9%	0.5%	45.9%	9.6%		21.8%	
	1	-	16									1.05	-								1.15		0.04		0.65							2
20 146 10 004 237 048 001 1.61 0.07 0.50 1.15 80.15 12.95 0.25 46.25 20.95 0.02 1.45 0.00 0.01 0.01 0.00 43.95 0.05 43.95 0.05 43.95	1	⊏	19	147	10	0.04	2.36	0.13	0.01					1.2%	100.0%	4.0%	0.2%	56.4%	34.4%	0.02		0.06		0.98		58.1%	0.6%	58.1%	1.0%	0.2%	29.2%	2

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

- M-patch Low CH

Г													П			max ratio ox	t of all beams									1			max ratio out of all b	eams		
		Т						4cn	n2 PD/mW	(/cm2)				5.8%	100.0%	22.1%	1.7%	65.9%	100.0%	40	om2 PD)	mW/cm2)	at 10mm ev	uluation d	istance	60.1%	4.7%	60.1%	20.9%	1.5%	30.6%	47.5%
No.	Module 7	jpe Bea	im ID_1	Berna ID,2	Feed no.	S4(Right) S	S)Left) SS	(Top)	\$6(Bottom	(S1/From	nt) \$2(F	lead da	per learn ck-off	ratio (Right 2mm)/(worst- surface 2mm)	ratio (Left 2mm)/(wont- surface 2mm)	ratio (Top 2mm(y(wont- surface 2mm)	ratio (Bottom 2mm)/(worst- surface 2mm)	ratio (Fornt 2mm)/(worst- surface 2mm)	ratio (Rear 2mm)/(wont- surface 2mm)	S4(Right)	S3(Left	t) SS(Top	(SE(Botton	m) S1/Fec	et) S2/Rea	ratio e) worst-surface (10mm/2mm)	ratio (Right 10mm)/(worst- surface 2mm)	ratio (Left 10mm)/(worst- surface 2mm)	ratio (Top 10mm)/(wont- surface 2mm)	ratio (Bottom 10mm)/(wont- surface 2mm)	ratio (Front 10mm)/(worst- surface 2mm)	ratio (Rear 10mm),/(worst- surface 2mm)
1	— †	=	0		1	0.00	0.29 0	1.01	0.00	0.17		4	3	1.0%	100.0% 100.0%	2.6%	0.5%	44.4% 30.7%	35.8% 43.7%	0.00	0.17	0.01	0.00	0.00		44.2% 29.6%	0.8%	44.2% 29.6%	1.8% 2.7%	0.3%	15.8%	15.1% 17.8%
3			2		1		0.27 0		0.00	0.11	0.7			1.4%	100.0%	5.8% 5.7%	0.4%	38.6%	24.2%	0.00		0.01	0.00	0.04	0.04	45.0%	1.1%	45.0%	12%	0.4%	12.9%	13.9%
4 5 6 7 8			4		-	0.01	0.32 0	1.01	0.00	0.14		13	-	1.9%	100.0%	4.1%	0.3%	45.4% 45.4%	33.8% 35.2%	0.00				0.01	0.04	42.0%	1.3%	42.0% 44.5%	2.5%	0.2%	14.2% 15.5%	11.9%
6		┍	5		2	000	0.44 0 0.76 0	04	0.00	0.17		9		0.9%	100.0% 100.0%	9.4% 5.3%	0.7% 0.1%	39.3% 51.9%	42.7% 36.2%	0.00			0.00	0.03	0.06	42.7% 55.4%	0.2% 1.2%	42.7% 55.4%	5.9% 2.9%	0.5%	15.8% 18.9%	14.2%
-			7		2	001	0.74 0	101	0.00	0.36	0.	20		15%	100.0%	1.4%	0.4%	48.1%	37.4%	0.01	0.27	0.01	0.00	0.13	0.13	52.3%	1.1%	50.3%	0.7%	0.3%	17.8%	17.8%
10			0 0		2 2	001	0.54 0 0.66 0	02	0.00	0.17			-	15% 12%	100.0% 100.0%	1.5% 6.5%	0.6%	30.8% 36.7%	50.3% 39.7%	0.01			0.00	0.00		44.7%	1.3%	44.7% 46.1%	2.0% 4.4%	0.4%	11.7% 11.2%	23.0%
11			10		2	0.00	0.83 0	101	0.00	0.39	0.	11		0.5%	100.0% 100.0%	1.4%	0.2% 0.6%	46.4% 41.0%	37.3% 38.5%	0.00	0.42	0.01	0.00	0.11		49.9% 37.4%	0.4%	49.9% 37.4%	0.8% 2.7%	0.1%	18.1% 16.4%	18.1%
		_	12			0.02	1.29 0		0.01	0.48	0.0	52		1.3%	100.0%	14.2%	0.5%	27.6%	40.2%	0.01		0.12	0.01	0.21	0.30	44.4%	0.9%	44.4%	9.1%	0.4%	16.3%	23.0%
14		_	13			0.02	1.87 0	102	0.00	1.04		79	\neg	1.0%	100.0% 100.0%	10.1%	0.1% 0.2%	47.1% 55.5%	42.2%	0.02	1.12	0.01	0.00	0.41	0.43	50.0%	0.7% 1.0%	\$1.7% \$9.9%	4.8% 0.5%	0.1%	21.3% 25.8%	20.5%
15 16 17			16		5	002		105	0.01	0.88	0.0			0.9%	100.0%	145	0.3% 1.5%	46.0% 20.6%	38.3% 94.1%	0.01		0.02	0.00	0.42	0.42	51.0% 41.2%	1.1%	\$1.0% 30.7%	1.0%	0.2%	22.1% 8.1%	22.1% 43.2%
			17		5	0.02	1.68 0	123	0.00	0.70	0.0	59		1.1%	100.0%	13.5%	0.2%	41.0%	40.0%	0.01	0.77	0.13	0.00	0.31	0.37	45.7%	0.8%	45.7%	8.0%	0.2%	18.5%	21.8%
19 20 21			18 19		5 5			107	0.00	0.94			-	1.1%	100.0% 100.0%	1.1%	0.2% 0.2%	51.8% 50.3%	38.9% 41.1%	0.01	1.14			0.40		57.1% 57.7%	0.6%	57.1% 57.7%	1.4% 0.7%	0.1%	24.3% 23.9%	20.6%
21			20 128		5	0.02	1.41 0	103	0.01	0.47		11		1.1%	100.0% 100.0%	2.3% 6.7%	0.7% 0.5%	11.1% 41.1%	57.7% 34.0%	0.01	0.55	0.02	0.01	0.21		38.9% 44.3%	0.8%	38.9% 44.3%	1.3%	0.7%	15.1% 14.4%	30.1% 13.4%
22 23 24 25			129		1		0.12 0		0.00	0.04	0.7			2.7%	82.0%	6.7%	0.7%	25.3%	100.0%	0.00			0.00	0.01	0.06	42.7%	2.7%	12.0%	4.7%	0.0%	8.7%	42.7%
25			130		1		0.11 0 0.12 0		0.00	0.05			-	2.6%	100.0%	13.1%	0.9%	41.9% 16.0%	95.3%	0.00				0.02	0.04	35.4%	2.8%	15.5% 30.8%	8.4% 6.0%	0.9%	15.0%	36.4% 31.6%
26			132 133		1	0.01	0.11 0	102	0.00	0.05	0.	12	100	5.2% 2.8%	94.0% 89.1%	16.4% 20.4%	0.9% 0.5%	41.4% 59.9%	100.0%	0.01	0.04	0.01	0.00	0.01		34.5% 31.9%	4.3% 2.3%	11.6% 12.0%	10.3%	0.9%	11.2% 24.1%	34.5% 33.9%
26 27 28 29			124		2	0.01	0.26 0	02	0.00	0.11	0.	10		1.3%	86.0%	7.6%	0.3%	35.9%	100.0%	0.01	0.10	0.02	0.00	0.04	0.12	42.2%	3.0%	14.6%	5.3%	0.0%	11.6%	42.2%
			135				0.22 0		0.00	0.12			-	0.9%	100.0% 100.0%	4.1%	0.6%	16.2% 31.8%	56.9% 54.7%	0.00		0.01		0.01	0.07	47.8% 37.2%	0.9%	47.8% 37.2%	2.5% 7.4%	0.2%	14.5%	21.0%
21 22 31 34 35	м е		137		2	0.01		104	0.00	0.10		17 0	2.50	2.4%	89.1% 100.0%	19.8% 11.5%	1.4%	48.7% 47.3%	82.4% 92.2%	0.00		0.03	0.00	0.04	0.06	27.0%	1.9%	27.0% 46.9%	13.5%	1.4%	16.9%	26.5% 32.1%
35			119			0.01	0.28 0	62	0.00	0.10	6.	14		2.7%	82.4% 100.0%	11.5% 6.0% 32.1%	0.6%	28.9%	100.0%	0.01	0.09	0.01	0.00	0.0	0.14	40.2%	2.1%	27.4% 29.8%	2.7%	0.6%	9.5% 20.2%	40.2% 32.8%
35			140 141		5		0.47 0 0.68 0	108	0.00	0.29			-	1.0% 4.9%	100.0%	12.1%	0.6% 0.4%	62.6% 55.3%	90.2%	0.01	0.22			0.10		32.8% 46.8%	2.1% 4.1%	46.0%	20.9% 8.9%	0.6%	24.7%	35.3%
36			142 143		5 5			102	0.00	0.25		9 83		5.8% 2.7%	100.0% 100.0%	3.1% 2.4%	0.3%	40.1% 38.5%	93.9% 85.3%	0.03				0.12		52.0% 45.5%	47% 22%	52.0% 45.5%	2.1% 1.7%	0.2%	19.5% 17.3%	47.5% 45.4%
37 38 39 40 41 42			144		5	0.02	0.70 0	.05	0.01	0.18	0.7	71		2.4%	10.6%	7.6%	1.5%	25.1%	100.0%	0.01	0.24	0.03	0.01	0.00	0.32	44.4%	1.5%	11.5%	1.5%	1.4%	8.5%	44.4%
40			145				0.57 0 0.56 0		0.00	0.34		4	\neg	2.6% 4.8%	91.3% 100.0%	27.6% 5.3%	0.6%	55.2% 52.0%	100.0% 96.4%	0.01				0.11		38.1% 56.6%	2.3% 1.9%	31.9% 56.6%	18.7% 3.7%	0.6%	21.9% 26.5%	38.1% 45.7%
41			147			003	0.75 0 0.84 0		0.00	0.29				4.0% 2.0%	100.0%	1.9%	0.4%	37.9% 31.3%	85.9% 94.9%	0.02			0.00	0.13	0.34	49.2%	2.9%	49.2% 38.7%	1.5%	0.3%	17.3%	45.5% 45.8%
43 44 45		=	0	128	2	0.01	0.69 0	03	0.01	0.37	0.			13%	100.0% 100.0%	4.9% 7.2%	0.7%	54.1% 11.5%	37.2% 65.7%	0.01	0.34	0.02	0.00	0.13		41.0%	0.9%	48.8% 44.4%	13% 52%	0.6%	18.1%	14.9%
45			2	130	2		0.46 0	1.03	0.00	0.16	0.2	22		1.8%	100.0%	7.0%	0.4%	45.8%	47.4%	0.01		0.02		0.01	0.08	41.2%	1.5%	41.2%	4.8%	0.4%	16.7%	18.2%
46			2	131	2	0.01	0.46 0		0.00	0.23	0.0			2.0%	100.0% 100.0%	8.1% 6.2%	0.4% 0.8%	50.8% 50.6%	54.5% 44.4%	0.01	0.19	0.02	0.00	0.00	0.09	41.15	1.5%	41.1% 43.1%	4.8% 3.8%	0.4%	18.0% 17.5%	20.0%
46 47 48 49 50 51		=	5	122		0.01	0.63 0	1.12	0.01	0.41	0.	9		18%	100.0% 100.0%	20.2% 6.1%	0.8% 0.2%	65.9%	76.0%	0.01			0.00	0.17	0.19	45.1% 51.4%	1.25	45.1% 51.4%	13.3%	0.6% 0.2%	27.7% 22.8%	29.8% 19.3%
50			7	135	4	0.02	0.96 0	103	0.00	0.65	0.	G .	\neg	1.0%	100.0%	2.8%	0.5%	47.8%	44.5%	0.01	0.51	0.02	0.00	0.19	0.22	53.0%	1.2%	\$1.0%	1.8%	0.4%	19.2%	20.5%
51		− =	0 8	136	4		0.93 0	1.07	0.01	0.32			\dashv	15% 17%	100.0% 100.0%	7.6%	0.7% 1.0%	34.2% 39.3%	52.7% 48.9%	0.01	0.42	0.05		0.12	0.22	44.8%	1.2% 1.3%	44.0% 46.7%	5.1% 9.6%	0.5%	12.5% 14.6%	24.0%
53			10	138	4	0.02	0.96 0	104	0.00	0.44	0.4	10		1.8%	100.0%	4.2%	0.3%	46.2%	41.9%	0.01	0.46	0.03	0.00	0.19	0.22	41.2%	1.4%	48.3%	2.6%	0.2%	19.6%	23.2%
51 54 55 56 57 58 59			11 12	139	10	0.02		140	0.01	0.38				2.4%	100.0%	7.4% 22.4%	1.1% 0.6%	48.0% 48.2%	72.5% 73.9%	0.01		0.03			0.67	31.4% 31.7%	1.8% 1.4%	38.4% 38.7%	15%	0.9%	18.9%	28.0%
56			13	141	10	0.07	2.16 0		0.01	2.17		59 0	2.50	2.1%	89.1% 100.0%	10.6%	0.2% 0.3%	61.0% C) 7%	44.7% 19.8%	0.07			0.01	1.00		48.5%	1.8%	48.5% 57.2%	6.5% 1.3%	0.2%	28.2% 25.2%	24.8%
34			15	143	10	0.05	126 0	35	0.01	1.54		ia .		1.7%	100.0%	1.5%	0.1%	47.3%	48.3%	0.04	1.59	0.04	0.01	0.72	0.95	48.7%	1.4%	46.7%	1.1%	0.2%	22.1%	29.0%
60			16	144	10		1.90 0 2.57 0	1.48	0.03	1.50			\neg	2.8%	100.0% 100.0%	9.0%	1.7% 0.5%	21.7% 58.5%	89.9% 69.3%	0.04	1.00	0.31	0.03	0.16	0.87	43.3% 42.2%	1.8%	34.5% 42.2%	4.8% 12.0%	1.5% 0.4%	8.5% 26.1%	43.3% 33.7%
61			18	146	10		2.01 0	109	0.01	1.91				1.9%	100.0%	2.9%	0.3%	63.5% 43.8%	19.7% 44.1%	0.05		0.05		0.92		60.1%	1.5%	60.1% 54.6%	1.7% 1.2%	0.2%	30.6% 20.4%	22.1% 25.4%
62		\vdash	20	140	10	0.04	254 0	112	0.01	0.93			_	1.6%	100.0%	475	0.0%	43.8% 36.7%	69.0%	0.04	1,67	0.04	0.01	0.64	0.93		125	41.3%	1.2% 2.2%	0.0%	16.1%	25.4%

- M-patch Mid CH

														max ratio ou	of all beams									1			max ratio out of all I	beams		$\overline{}$
Т							4cm2 PI	D/mW/cm	12)			515	100.0%	14.6%	16%	es es	100.0%	4	cm2 PD(n	vW/cm2) i	it 10mm eval	Austion dis	tance	61.65	42%	61.4%	22.0%	1.5%	21.2%	46.4%
No. 1	foclule Type	Seam ID_1	Bena D,2	Feed no.	54(Right) 53(Let	ft) SS(To)	p) \$6(B	ottom) 1	S1(Front)	S2(Rear)	per Beam Back-off	ratio (Right 2mm)/(worst- surface 2mm)	ratio (Left 2mm)/(wont- surface 2mm)	ratio (Top 2mm)/(wont- surface 2mm)	ratio (Bottom 2mm)/(wonst- surface 2mm)	ratio (Fornt 2mm)/(worst- surface 2mm)	ratio (Rear 2mm)/(wont- surface 2mm)	S4(Right)	S3(Left)	SS(Top)	S6(Bottom)	(S1/Fron	t) S2(Rear)	ratio worst-surface (10mm/2mm)	ratio (Right 10mm)/(worst- surface 2mm)	ratio (Left 10mm)/(wond- surface 2mm)	ratio (Top 10mm)/(wonst- surface 2mm)	ratio (Bottom 10mm)/(worst- surface 2mm)	ratio (Front 10mm)/(worst- surface 2mm)	ratio (Rear 10mm)/(worst- surface 2mm)
	_	0		1		0.01			0.17		(38)	0.8%	100.0%	3.2%	0.3%	44.5%					0.00		0.05		0.5%	42.9%	2.1%	0.3%	16.8%	14.2%
2 3 4 5 6 7 8 9		2			0.00 0.33	0.02	0	1.00	0.09	0.10		0.6%	100.0%	5.8%	0.3%	27.5% 38.6%	30.8%	0.00		0.01	0.00	0.03	0.03	41.1% 45.2%	0.6%	41.1% 45.2%	4.2% 2.8%	0.3%	8.4% 14.0%	14.6%
5		3	-	-		0.01			0.14			2.0%	100.0% 100.0%	4.25 4.75	0.7%	46.9% 45.7%	31.9% 35.4%	0.00		0.01	0.00	0.05	0.04	42.0%	1.3%	42.0% 44.2%	2.6%	0.3%	15.6% 15.3%	14.0%
6		5 6		2		0.06		.00	0.18	0.23		1.0%	100.0% 100.0%	10.0%	0.6%	15.7% 50.4%	45.0%	0.00	0.21	0.04	0.00	0.08		40.8% 56.2%	0.6%	40.8% 56.2%	7.1% 2.8%	0.4%	16.2% 19.7%	13.8% 14.2%
á		7		2	0.01 0.76	0.01		.00	0.36	0.24		1.6%	100.0%	2.0%	0.6%	\$1.1%	34.5%	0.01	0.27	0.01	0.00	0.14	0.11	52.9%	1.1%	52.9%	0.9%	0.4%	19.3%	15.5%
10		- 8		2	0.01 0.76	0.02	- 0	.00	0.20			0.9% 1.2%	100.0% 100.0%	1.45 6.35	0.5% 0.1%	30.7% 36.1%	42.6%		0.22		0.00		0.11	47.8% 47.6%	0.9%	47.8% 47.6%	2.2% 4.3%	0.5%	9.9% 11.2%	19.0% 15.8%
11		10		2	0.00 0.14	0.01	0	100	0.38	0.32		0.5%	100.0% 100.0%	1.3%	0.2% 1.1%	45.3% 40.7%	10.6% 16.6%	0.00	0.43	0.01	0.00	0.15		51.1%	0.2%	51.1% 41.2%	0.7% 3.9%	0.2%	18.1% 16.7%	17.2% 11.9%
13		12		5	0.01 1.41	0.22		101	0.55	0.65		0.9%	100.0% 100.0%	15.5%	0.4%	38.9% 46.3%	46.2% 37.6%	0.01	0.62	0.15	0.00	0.25		41.7% 51.2%	0.9%	43.7% 53.2%	10.3%	0.3%	17.7% 22.7%	23.2% 20.2%
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29		14		5	0.02 1.02	0.02	. 0	.00	1.02	0.75		1.0%	100.0%	0.9%	0.2%	55.9%	41.1%	0.01	1.12	0.01	0.00	0.50	0.40	60.5%	0.7%	60.5%	0.6%	0.2%	27.4%	22.0%
16		15 16		5	0.01 2.02	0.02		101	0.89	0.81	I	0.7%	100.0% 100.0%	1.1%	0.4%	44.1% 29.0%	40.0% 77.1%	0.01	1.09	0.02	0.01	0.43		54.2% 35.8%	0.5%	54.2% 34.5%	0.9%	0.3%	21.1% 11.6%	20.1%
18		17			0.01 1.75	0.23	9	.00	0.74	0.67		0.6%	100.0%	13.2%	0.2%	42.3% 50.2%	28.4%	0.01	0.81	0.16		0.36	0.19	46.2%	0.5%	46.2% 59.6%	9.0%	0.2%	20.4% 24.8%	22.2% 21.0%
20		19	_	- 3	0.02 1.02			1.00	0.98	0.82		1.1%	100.0%	0.9%	02%	52.0% 14.7%	43.6%	0.02		0.01	0.00	0.45	0.41	61.4%	0.8%	61.4%	0.6%	0.2%	24.1%	22.0% 23.8%
21		128		5	0.01 1.60	0.03			32.0	0.77		0.9%	100.0%	1.6%	0.6%	34.7% 44.4%	47.8% 28.1%	0.01		0.01	0.01	0.26	0.38	43.1%	0.6%	43.1% 42.2%	0.9%	0.6%	16.4% 11.8%	23.8%
23		129		1		0.01		.00	0.04	0.15		2.0%	84.3% 100.0%	5.9% 12.3%	0.7%	25.5% 45.6%	100.0% 82.5%	0.00	0.05	0.01	0.00	0.01		41.2% 35.1%	2.0%	33.3% 35.1%	1.9% 7.9%	0.0%	9.2%	41.2% 29.8%
25		131			0.00 0.12	0.01	0	.00	0.05	0.10		1.2%	100.0%	10.6%	0.8%	27.4%	79.7%	0.00	0.04	0.01	0.00	0.01		30.9%	2.4%	10.9%	6.5%	0.8%	11.4%	28.5%
27		132	+	2	0.00 0.11	0.02		.00	0.06	0.10	0.50	1.7%	100.0% 89.1%	19.6%	0.9%	59.8% 58.0%	89.7% 72.1%	0.00		0.01	0.00	0.02	0.03	38.3%	2.8%	38.2%	13.1%	0.9%	17.8% 21.7%	29.0%
28		134		2	0.01 0.28	0.02		.00	0.12	0.10		1.4%	94.3% 100.0%	7.1%	0.0%	40.5% 34.1%	100.0% 53.4%	0.01	0.12	0.01	0.00	0.04		42.9%	2.7%	40.5% 44.8%	4.7% 2.4%	0.0%	11.9%	42.9% 22.9%
30		136		2	0.00 0.21	0.03		100	0.08	0.16		1.4%	100.0%	10.0%	0.7%	27.9% 57.8%	55.4% B4.2%	0.00		0.02	0.00	0.02	0.06	25.0% 28.2%	1.1%	35.0%	7.1%	0.7%	20.2%	21.8%
22	M Patci	138		2	0.01 0.24	0.03		1.00	0.12	0.19	0.50	3.7%	100.0%	12.0%	0.4%	52.9%	79.8%	0.01	0.12	0.02	0.00	0.05	0.07	47.9%	3.3%	47.9%	6.6%	0.4%	19.0%	28.5%
34		110	-	5	0.01 0.26	0.02		1.00	0.11	0.24		3.1% 2.4%	100.0%	8.5% 34.6%	0.8%	41.7% 54.2%	91.5%	0.01	0.09	0.01	0.00	0.03		40.2% 32.9%	2.3%	35.9% 32.7%	4.2% 22.0%	0.8%	13.1% 19.8%	40.2% 32.9%
35		141		5		0.07			0.41	0.54		4.4% 5.1%	100.0% 100.0%	10.2%	0.4%	59.0% 40.7%		0.03		0.05	0.00	0.20		49.9%	4.0%	49.9% 51.5%	6.4%	0.2%	28.1% 19.2%	31.1% 46.4%
37		143		3	0.02 0.85	0.02	- 0	.00	0.33			2.1%	100.0%	2.6%	0.2%	16.9%	74.4%	0.02	0.42	0.02	0.00	0.15	0.16	46.8%	1.8%	46.0%	1.7%	0.2%	16.6%	40.4%
38		144	1	5		0.04		1.01	0.24	0.65		2.4%	92.3%	6.1% 29.2%	1.3%	12.6% 50.6%	75.4% 100.0%	0.01		0.03	0.01	0.08	0.25	31.6%	1.7%	34.4%	19.1%	0.6%	11.1% 22.4%	38.2% 38.6%
40		146		5		0.03			0.30	0.48	I	4.6%	100.0%	5.25	0.5%	53.9% 17.8%	85.8% 82.9%	0.02		0.02	0.00	0.16		57.1%	1.0%	57.1%	1.6%	0.5%	27.6% 17.2%	39.9% 41.9%
42		146	—	1 5		0.04		.01	0.28	0.63		1.0%	100.0%	4.1%	0.6%	12.6% 57.4%	74.8% 37.5%	0.01		0.02	0.00	0.12	0.33	29.8% 46.0%	1.3%	19.8% 46.0%	1.9% 1.2%	0.5%	13.7%	39.5% 14.6%
44		1	128	2 2	0.01 0.52	0.04		.00	0.17	0.35		1.1%	100.0%	7.8%	0.4%	12.7%	58.9%	0.01	0.21	0.02	0.00	0.06	0.15	45.1%	1.1%	46.1%	5.5%	0.4%	10.5%	29.4%
22 23 34 35 35 36 37 38 40 41 41 42 43 44 45 46 46 49 50 51 51 52 53 53 53 54 55 56 57 57 58 58 58 58 58 58 58 58 58 58 58 58 58		2 3	130		0.01 0.46	0.04	- 0		024	0.20 0.23		1.5% 1.5%	100.0% 100.0%	8.15 8.85	0.6%	46.5% 48.6%	48.2%	0.01		0.03			0.08	41.2% 29.7%	1.5%	43.2% 39.7%	5.2% 5.2%	0.6%	18.7% 16.3%	14.2% 17.3%
47		4	132	2	0.02 0.43	0.04		.00	0.28	0.21		3.2% 1.8%	100.0%	22.4%	0.4%	59.1% 65.4%	73.1%	0.01		0.02	0.00	0.10	0.08	45.05	2.1% 1.2%	44.9% 45.8%	140%	0.4%	20.9%	16.2% 23.4%
49		í	134	1 4	0.02 1.13	0.06	. 0	1.00	0.65	0.50		1.9%	100.0%	5.0%	0.2%	57.4%	44.1%	0.02	0.61	0.04	0.00	0.28	0.20	53.8%	1.8%	53.8%	1.6%	0.2%	24.8%	17.5%
50		7 8	135	4	0.02 0.91	0.03		L01 L01	0.45	0.35		1.8%	100.0%	2.1% 7.6%	0.5%	49.3% 31.2%	38.9% 44.9%	0.01	0.50	0.02	0.00	0.17	0.21	54.8% 47.1%	1.2%	54.8% 47.1%	2.0% 5.4%	0.4%	18.7% 9.6%	17.3% 19.3%
52		9	137	4	0.02 0.84	0.13		.01	0.33	0.44		1.9%	100.0% 100.0%	14.9%	0.8%	29.3% 44.7%	52.5% 19.6%	0.01	0.38	0.08	0.01	0.12		45.3% 47.8%	1.4%	45.3% 47.8%	10.0%	0.7%	14.4%	23.7% 18.6%
54		11	129	4	0.02 0.82	0.07			0.40			2.1% 1.5%	100.0%	7.9% 22.9%	1.0%	48.1% 45.9%	51.8%	0.01		0.04	0.01	0.16		41.85 29.25	1.65	41.8% 39.3%	4.6% 15.0%	0.9%	19.1% 20.4%	20.8% 32.1%
56		13	141	10	0.07 131	0.55		1.01	2.24	1.52	0.50	1.8%	89.1%	10.4%	0.2%	60.1%	40.9%	0.06	1.84	0.24	0.01	1.12	0.87	49.6%	1.6%	49.6%	6.5%	0.2%	30.1%	23.4%
57		14				0.04			1.49			1.7%	100.0%	1.5%	0.2%	54.9% 41.0%	18.9% 43.4%		1.61		0.01		0.57	59.3% 52.7%	1.4%	59.3% 52.7%	1.0%	0.2%	27.0% 20.5%	21.0% 23.1%
59		16	144	10	0.05 2.25	0.12	. 0	1.04	0.09	1.75		2.4%	100.0%	5.4% 20.2%	1.6%	30.8% 57.9%	77.9% 66.0%	0.04	0.01	0.06	0.03	0.28		38.7% 41.2%	1.6%	26.3% 43.2%	3.4% 13.4%	1.5%	12.5%	38.7% 35.2%
59 60 61 62		17	146	10	0.05 2.94	0.00		.01	1.82			1.8%	100.0%	2.8%	0.1%	61.8%	37.6%	0.05	1.00	0.04	0.01	0.92	0.63	61.3%	1.0%	61.3%	1.4%	0.2%	31.2%	21.4%
62		19	147	10	0.05 107	0.05			1.40	1.25	П	1.6%	100.0%	1.5%	0.3%	45.6% 18.0%	40.5% 59.2%	0.04		0.03	0.01	0.64		58.5% 44.5%	1.2%	58.5% 44.5%	1.0%	0.3%	20.8% 17.6%	20.5%

- M-patch High CH

														max ratio ou	of all beams									1			max ratio out of all I	beams		
						4	4cm2 PC	l/mW/cn	n2)			63%	100.0%	21.0%	15%	612%	100.0%	4	cm2 PD	I/mW/cm2)	at 10mm eva	lustion d	stance	60.6%	4.5%	60.6%	19.8%	1.3%	29.6%	43.2%
No. Module Type	Seam ID_1	Bena D,2	Feed no.	S4(Right)	S3(Left)	SS(Top)) S6(Bo	ottom)	\$1(Front)	S2(Rear)	per Beam Back-off	ratio (Right 2mm)/(worst- surface 2mm)	ratio (Left 2mm)/(wont- surface 2mm)	ratio (Top 2mm)/(wonst- surface 2mm)	ratio (Bottom 2mm)/(wont- surface 2mm)	ratio (Forst 2mm)/(worst- surface 2mm)	ratio (Rear 2mm)/(wonst- surface 2mm)	S4(Right)	53(Le	nt) SS(Top) SE(Bottom	S1(Fro	nt) S2/Rea	ratio (10mm/2mm)	ratio (Right 10mm)/(wont- surface 2mm)	ratio (Left 10mm)/(worst- surface 2mm)	ratio (Top 10mmly/worst- surface 2mm)	(Bottom (Bottom 10mm)/(wonst- surface 2 mm)	ratio (Front 10mm)/(wonst- surface 2mm)	ratio (Rear 10mm)/(worst- surface 2mm)
			1	0.00	0.26	0.01	0.		0.15		(dil)	0.6%	100.0%	3.1%	0.1%	42.3%	19.6%	0.00	0.16	0.01		0.04	0.05	41.5%	0.6%	43.5%	1.9%	0.3%	17.0%	14.8%
2 3 4 5 6 7 8 9 10 11 12 12 14 15	1		-	0.00	0.30	0.02	0.	00		0.13		1.0%	100.0% 100.0%	4.9%	0.3%	28.6% 15.0%	41.4%				0.00		0.05	42.8% 44.5%	0.2%	42.8% 44.5%	3.3% 2.8%	0.3%	1.6% 11.2%	15.8% 10.4%
4	1	_		0.00	0.21	0.02	0	00	0.11	0.09	-	1.2%	100.0%	5.5%	0.1%	41.6%	30.5%	0.00	0.12	0.01	0.00	0.04	0.03	40.9%	1.0%	40.9%	2.9%	0.3%	11.6%	1.4%
3	-		-	0.00	0.34				0.14			1.2%	100.0%	10.3%	0.3%	42.2% 30.4%	35.1% 53.4%	0.00		0.01	0.00	0.00		42.8%	0.9%	42.8% 41.1%	2.7% 6.8%	0.3%	14.5%	12.4%
7	- 6	_	2		0.72				0.15		_	0.8%	100.0%	5.9%	0.1%	47.2%	19.6%			0.02			0.10		0.5%	41.1% 58.4%	2.6%	0.1%	19.5%	14.2%
	7		2		0.71					0.24		1.3%	100.0%	2.0%	0.3%	47.6%	34.2%	0.01		0.01			0.09		0.8%	52.2%	1.0%	0.3%	17.8%	12.9%
9	- 8	 	2	0.01		0.02			0.22		_	1.1%	100.0%	12% 5.5%	0.5%	34.8% 40.2%	41.1% 42.7%	0.00		0.01		0.00		41.1%	0.6%	48.3% 48.6%	2.1%	0.3%	12.2% 13.8%	18.3%
11	10		2	0.00		0.01	0.	02	0.35	0.34		0.5%	100.0%	1.2%	0.1%	42.3%	42.0%	0.00	0.43	0.01	0.00		0.17	52.4%	0.2%	52.4%	0.6%	0.1%	17.0%	20.1%
12	11	+	2 5	0.01		0.04			0.22		+	1.1%	100.0% 100.0%	7.2% 15.7%	0.6%	41.1% 40.9%	33.6% 47.4%	0.00		0.02	0.00		0.06		0.7% 1.0%	43.5% 46.6%	3.7% 11.2%	0.6%	15.8% 18.1%	11.2% 24.7%
14	- 13		- 5			0.19	0	00	0.93	0.79		0.7%	100.0%	9.3%	0.2%	46.7%	19.6%	0.01	1.13	0.10	0.00	94	0.19	56.8%	0.5%	56.0%	4.9%	0.1%	21.9%	19.6%
15	14	+	5 5	0.03	214	0.01	0.		0.83		+	1.5%	100.0%	0.8%	0.2% 0.2%	49.0% 44.1%	47.9% 42.5%	0.01	1.02	0.01	0.00	0.4		60.6% 54.8%	0.8%	60.6% 54.8%	0.6%	0.1%	25.7% 20.3%	25.7% 22.9%
16 17	16		5	0.02	1.10	0.07			0.36	0.75		1.5%	100.0%	5.9%	1.3%	12.2%	67.0%	0.01		0.04	0.01	0.12	0.32	29.2%	1.0%	19.2%	1.5%	1.2%	11.3%	28.6%
18	17	+	5	0.01	1.65	0.24	0.	00	0.71		-	0.7%	100.0% 100.0%	14.2%	0.2%	43.1% 49.0%	40.0%	0.01	0.83	0.14	0.00	0.34		50.3% 60.6%	0.7%	50.3% 60.6%	8.7%	0.2%	20.5% 21.2%	21.0%
20	19		5	0.02	1.83	0.02	0		0.89	0.86		0.8%	100.0%	1.1%	0.2%	48.7%	46.9%	0.01	1.10	0.01	0.00	0.43	0.46	59.8%	0.5%	59.8%	0.8%	0.2%	23.6%	25.1%
21	128	-	5	0.01	021	0.04	0			0.75	-	0.6%	100.0% 100.0%	2.3% 5.3%	0.5%	15.6% 40.1%	43.7% 27.2%	0.01	0.80	0.02	0.01		0.16	46.8%	0.5%	46.8% 40.8%	1.3%	0.5%	15.0% 11.6%	21.2% 10.2%
19 20 21 22 23 24	129			0.00	0.14	0.01	0.	55	0.04	0.16		2.6%	90.1%	5.85	0.6%	27.7%	100.0%	0.00	0.05	0.01	0.00	0.60	0.06	40.6%	13%	14.8%	15%	0.6%	10.1%	40.6%
24	120	_	-	0.00		0.01			0.05	0.09	_	2.3% 2.8%	100.0% 100.0%	10.0%	0.8% 0.7%	40.8% 29.6%	70.8% 68.8%	0.00		0.01		0.00		35.4%	1.5% 2.1%	35.4% 30.6%	6.9% 4.9%	0.8% 0.7%	14.6% 11.8%	25.4% 26.4%
26	132		1	0.01	0.11	0.02	0	00	0.06	0.11		6.2%	94.6%	20.7%	0.9%	56.8%	100.0%	0.01	0.04	0.02	0.00	0.00	0.03	31.5%	4.5%	31.5%	14.4%	0.9%	17.1%	30.6%
27	133		2	0.01	0.25	0.05		8		0.18	0.50	2.5%	89.1% 100.0%	16.6%	1.1%	55.2% 41.0%	66.0% 96.7%	0.01	0.00	0.03	0.00	0.00		29.6%	1.8%	29.6% 44.7%	10.5%	1.1%	19.5% 14.7%	22.7% 41.7%
29	135		2	0.00		95	0		0.12	0.29		1.1%	100.0%	1.1%	0.0%	41.0% 34.0%	50.3%	0.00		0.01	0.00	0.00	0.08	42.8%	2.3% 1.1%	42.8%	2.2%	0.6%	12.4%	22.7%
30	126		2	0.00	0.21	0.03				0.18		1.0%	100.0%	8.1% 20.4%	10%	26.5% 60.1%	56.6% 89.1%				0.00		0.07		1.0%	32.0% 27.6%	5.5%	0.6%	2.4% 20.8%	23.6%
32 M Patch	138	_	2	0.01	0.26	0.03	0.	00	0.13	0.21		3.5%	100.0%	11.5%	0.4%	50.8%	80.8%	0.01	0.11	0.02	0.00	0.00	0.07	43.1%	3.1%	43.1%	6.9%	0.4%	20.0%	27.7%
33	139	_	2	0.01	026	0.03			0.11			3.1% 2.5%	100.0% 100.0%	9.9% 31.6%	0.8%	40.5% 51.2%	82.1% 78.8%	0.01		0.01		0.0	0.10	39.7% 31.9%	2.3% 1.8%	16.3% 31.9%	4.6% 19.8%	0.8%	13.4% 18.6%	39.7% 31.1%
35	141		5	0.03		0.06	0.	00	0.40	0.54		3.8%	100.0%	11.1%	0.6%	55.9%	74.5%	0.02	0.21	0.06	0.00	0.11	0.22	49.0%	3.3%	49.0%	7.9%	0.4%	25.3%	30.5%
36	142		5	0.03	0.63	0.02	0		0.25			1.0%	100.0%	2.6% 2.6%	0.3%	40.0% 34.9%	84.1% 74.2%	0.03	0.22	0.01	0.00	0.12		50.8% 47.0%	4.15	50.8% 47.0%	2.1%	0.3%	19.5% 15.8%	43.2% 42.7%
38	144	1	5	0.02	0.82	0.05	0		0.26		_	2.2%	100.0%	5.8%	12%	31.0%	72.2%	0.01	0.4	7 0.03	0.00	0.14		35.0%	1.2%	33.0%	3.2%	1.1%	11.6%	46,7% 35,0%
25 26 27 28 29 20 20 20 20 20 20 20 20 20 20	145		5	0.02		0.20	0	00	0.36	0.65		2.2% 4.2%	100.0% 100.0%	28.2% 4.6%	0.6%	\$1.9% \$0.2%	93.8% 76.6%	0.01			0.00	0.17		40.8% 54.8%	1.2% 1.6%	37.6% 54.8%	18.2% 2.6%	0.4% 0.8%	21.9% 26.5%	40.8% 34.7%
41	147	_	5	0.03	971	0.02	0.	00	0.27	0.55		4.0%	100.0%	2.1%	0.1%	17.1%	75.8%	0.02	0.30	0.01	0.00	0.12	0.10	49.5%	3.3%	49.5%	1.4%	0.3%	17.1%	41.4%
42	146	128	5	0.02		0.04			0.28			1.9%	100.0% 100.0%	425	0.8%	30.9% 51.4%	73.8% 35.6%	0.01		0.02		0.12		40.1%	1.5%	39.1% 45.3%	2.1% 2.7%	0.7%	11.4%	40.1% 14.1%
44	1	129		0.01	0.55	0.04	0.	00	0.17	0.30		1.5%	100.0%	6.4%	0.4%	31.8%	53.9%	0.01	0.21	0.03	0.00	0.00	0.14	45.4%	1.5%	46.4%	4.6%	0.4%	10.2%	26.1%
45	2	130	2	0.01	0.54	0.04			0.23			1.3%	100.0%	7.7% 9.1%	0.6%	42.5% 43.1%	40.2% 43.1%	0.01	0.23	0.03		0.10	0.07		1.1%	43.0% 36.3%	5.0%	0.6%	18.0% 15.5%	13.1%
47	4	132	2	0.02		0.05			0.24		_	4.2%	100.0%	10.8%	0.4%	47.7%	44.0%	0.01	0.11					29.1%	2.8%	29.1%	6.1%	0.4%	19.3%	16.2%
40	- 5	133		0.02	0.73	0.16	0			0.54		2.1%	100.0%	22.1%	1.1%	63.2%	74.2%	0.01		0.10	0.01	0.11	0.19	43.4% 53.4%	1.4%	43.4%	13.9%	0.8%	24.7%	26.1%
50	7	135		0.02	1314	0.04	0			0.50		1.2%	100.0%	5.5% 17%	0.5%	50.7% 46.6%	14.25	0.02	0.50	0.02	0.00		0.15		1.7%	55.4% 50.9%	3.3% 2.2%	0.2% 0.5%	22.7% 18.7%	17.5%
51		126	4	0.02		0.08			0.39			1.5%	100.0%	6.9%	0.6%	34.7%	43.4%	0.01	0.5	0.05	0.01			47.3%	1.0%	47.2%	4.7%	0.6%	11.4%	17.1%
46 47 48 49 50 51 52 51	10	137	4	0.02		0.13			0.34	0.45	-	2.8% 1.5%	100.0%	16.5%	0.7%	41.5% 29.3%	55.7% 41.9%	0.02		0.09		0.12		48.0%	2.1%	48.0% 48.1%	10.6% 2.4%	0.7%	15.3%	26.0%
	11	139	4	0.02	0.97	0.08		01	0.44	0.52		1.8%	100.0%	8.1%	0.7%	45.2%	53.4%	0.01		0.04		0.13		29.5%	1.3%	19.5%	4.2%	0.6%	17.1%	18.6%
55	12	140	10	0.03	2.45	0.61			1.20		0.50	1.4%	100.0% 89.1%	24.8%	0.4%	49.2% 58.6%	69.3% 40.4%	0.03	0.91	0.40	0.01	0.50		31.9%	1.35	38.9% 51.1%	16.5%	0.3%	20.6%	33.0% 22.3%
57	14	142	10	0.06		0.04	0.	01	1.23	1.16	-20	2.3%	100.0%	1.5%	0.3%	46.9%	44.4%	0.04	1.50	0.03	0.01	0.64	0.61	59.5%	1.4%	59.5%	1.0%	0.2%	25.1%	23.5%
58	15	143			262					1.76		12%	100.0%	15%	0.2% 1.5%	41.4% 33.1%	47.0% 72.5%				0.01			53.7% 29.5%	1.1%	53.7% 19.5%	1.0%	0.2% 1.3%	20.0% 12.8%	24.8% 32.8%
60	17	145	10	0.03		0.57	0.	01	1.57	1.69		1.3%	100.0%	21.7%	0.4%	60.3%	64.6%	0.03	1.10	0.39	0.01	0.75	0.91	44.4%	1.2%	44.4%	14.0%	0.3%	28.8%	34.9%
56 57 58 59 60 61	18	146	10	0.05	2.84	0.08			1.67	1.14	+	1.9%	100.0% 100.0%	2.8%	0.4%	58.8% 43.1%	40.1%	0.05		0.04	0.01	0.5		60.3% 58.0%	1.7% 1.2%	60.3% 58.0%	1.4%	0.3%	29.6%	23.5%
63	20	140	10	0.04	2.47	0.07	ة ا	02		1.00		1.1%	100.0%	2.1%	0.7%	35.4%					0.02			46.9%	0.8%	46.9%	1.0%	0.6%	16.1%	26.0%