FCC ID: A3LSMS937U

Power Density Simulation Report

Revision A

February 10, 2025

SAMSUNG ELECTRONICS

1. Simulation methodology for Power Density (PD)

1.1 Simulation tool

1.1.1 Tool description

For the simulation approach to calculating power density (PD) evaluation for mobile phone with mmWave antenna module, ANSYS Electromagnetics suite version 2024.R2 (HFSS) is used. ANSYS HFSS is one of several commercial tools for 3D full-wave electromagnetic simulation used for antenna and RF structure design of high frequency component. ANSYS Electromagnetics suite version 2024.R2 (HFSS) is implemented based on Finite Element Method (FEM), which operates in the frequency domain.

1.1.2 Mesh and Convergence criteria

To solve the PD analysis using FEM, volume area containing simulated objects should be subdivided into electrically small parts that are called finite elements as the unknown functions. To subdivide system, the adaptive mesh technique in ANSYS Electromagnetics suite version 2024.R2 (HFSS) is used. ANSYS Electromagnetics suite version 2024.R2 (HFSS) starts to refine the initial mesh based on wavelength and calculate the error to iterative process for adaptive mesh refinement. The determination parameter of the number of iteration in ANSYS Electromagnetics suite version 2024.R2 (HFSS) is defined as convergence criteria, delta S, and the iterative adaptive mesh process repeats until the delta S is met. In ANSYS Electromagnetics suite version 2024.R2 (HFSS), the accuracy of converged results depends on the delta S. Figure 1 is an example of adaptive mesh of the device (cross-section of top view).

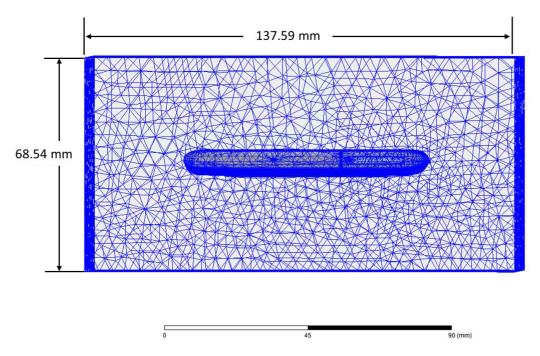


Figure 1 Example of the adaptive mesh technique (Top view)

1.1.3 Power density calculation

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

$$\langle \overrightarrow{\mathbb{S}} \rangle = \operatorname{Re} \ \overrightarrow{\mathbb{Z}} \ \overrightarrow{\mathbb{E}} \times \overrightarrow{\mathbb{H}} \ \overrightarrow{\mathbb{E}}$$

⟨□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 version 2024.R2 (HFSS).

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

$$PD_{aaaa} = \frac{1}{AA} \underbrace{\begin{array}{c} \langle \vec{S} \rangle \cdot dddd}_{AA} = \frac{1}{2AA_{aaaa}} \underbrace{\begin{array}{c} |||}_{AA_{aaaa}} \\ ||||_{AA_{aaaa}} \end{array}}_{AA_{aaaa}} \underbrace{\begin{array}{c} |||}_{AA_{aaaa}} \\ |||_{AA_{aaaa}} \\ ||_{AA_{aaaa}} \end{array}}_{AA_{aaaa}} \underbrace{\begin{array}{c} |||}_{AA_{aaaa}} \\ ||_{AA_{aaaa}} \\ ||_{AA_{aaaa}}$$

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

1.2 Simulation setup

1.2.1 3D modeling

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

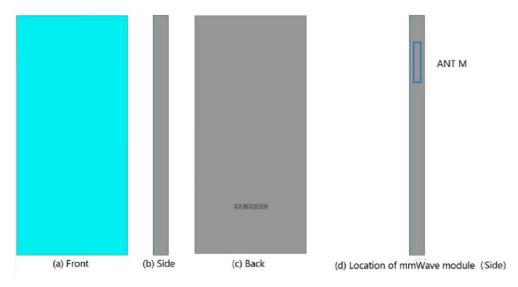


Figure 2. Simulation model which is mounted a mmWave antenna module

1.2.2 PD evaluation planes

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

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

Module	Front	Back	Left From Front View	Right From Front View	Тор	Bottom
	S1	S2	S3	S4	S5	S6
Ant M	О	О	0	O	О	0

Table 1. PD evaluation planes

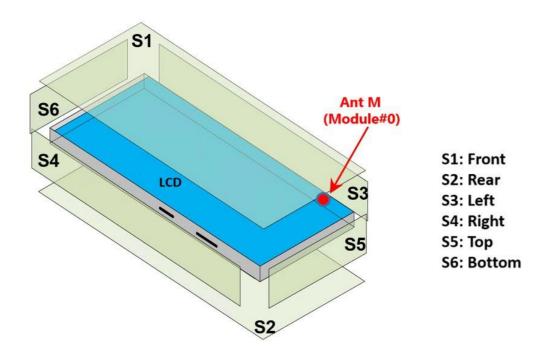


Figure 3. PD evaluation planes

1.2.3 Boundary condition

To simulate electromagnetic tool based on FEM, the boundary condition allows electromagnetic waves to be electrically open at the boundary and radiated far away without reflection. ANSYS Electromagnetics suite version 2024.R2 (HFSS) can support the absorbing boundary condition (ABC)

for radiation boundary and make normally a quarter wave length from the radiating structure. In this report, to cover all beamforming cases of mmWave antenna modules, 40 mm spacing from the device for each surfaces were adopted. This distance is sufficiently large enough for "Qualcomm IPLG script" to extract valid E- and H-fields from all adjacent exposure surfaces of the EUT.

1.2.4 Source excitation condition

The number of antenna ports of ANT M for source excitation are the same. 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.

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

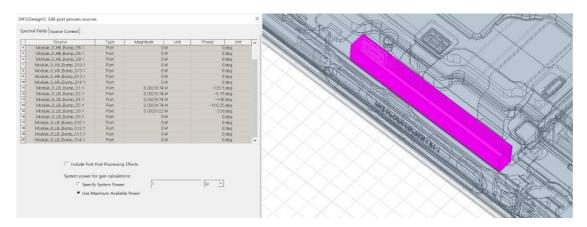


Figure 4. An example of port excitation (ANT M)

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 (\P) can be obtained through cross product of an electric field (\P) and complex conjugate of a magnetic field (\P). 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 5 shows examples of the distribution plot of point power density and the averaged power density.

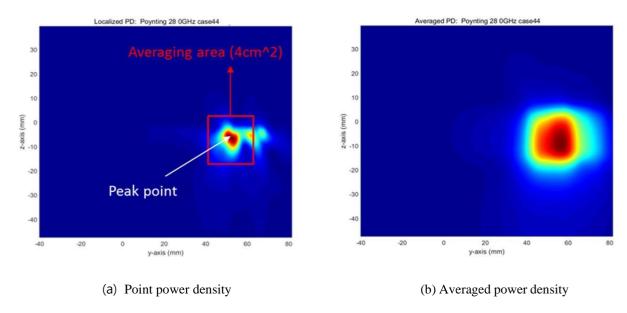


Figure 5. Power density distribution (Example)

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

2.2 Comparison between simulation, measurement

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

"Qualcomm IPLG script" prints the simulated 4cm² averaged PD values at the reference level (6dBm) for all channels on all surfaces.

Based on comparison of power density distributions, the power densities of simulated, measured and the "Qualcomm IPLG Script" have a good correlation. The discrepancy in amplitude between the "Qualcomm IPLG Script" 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	6.0	6.0
5G NR n260	M Patch	6.0	6.0
5G NR n258	M Patch	6.0	6.0

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

4Cm^2

Band	Channel	Module	Туре	Side	Beam ID	PLS (10 dBm)	Sim. PD (mW/cm2)	Meas. PD (mW/cm2) * Circle Avg
	Mid			Left	15		1.458	0.55
n261	Ch. 2077915	М	Patch	Rear	276	60	1.210	0.89
	(27924.96 MHz)			Left	268		0.850	0.50
				Rear	14		1.070	0.57
n260	Mid Ch. 2254165	М	Patch	Left	14	60	1.187	0.76
11200	(38499.96 MHz)	IVI	rattii	Left	268	00	0.957	0.74
	(55455155 141112)			Front	272		0.574	0.32
				Rear	14		0.399	0.16
	Mid			Left	15		0.718	0.47
n258	Ch. 2025833	М	Patch	Front	15	60	0.417	0.27
	(24800.04 MHz)			Rear	273		1.510	0.79
				Left	275		1.003	0.53

• Table 2-1, n261 ANT M-Patch

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm IPLG Script
15	S3 (Left)	MITM			900

• Table 2-2, n261 ANT M-Patch

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

• Table 2-3, n260 ANT M-Patch

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

• Table 2-4, n260 ANT M-Patch

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm IPLG Script
268	S3 (Left)	ANT M			010=
272	S1 (Front)	ANT M			

• Table 2-5, n258 ANT M-Patch

Beam ID	Surface	View	Simulated PD	Measured PD	Print out from Qualcomm IPLG Script
14	S2 (Rear)	ANT M			7
15	S3 (Left)	ANTM			•
15	S1 (Front)	ANTM			

• Table 2-6, n258 ANT M-Patch

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

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

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

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

This model take "GEN2 SUB6" mode(mmWave operate as GEN1), thus, only verification 1 is required.

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 three separation distances of 2mm, 5mm 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 and the ratio of PD exposure from 2mm to 5mm 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

								:m2 PD(mW()	rm2)						t of all beams uation distance						at of all beams Austion distance			max ratio out at 5mm evalu	t of all beams uation distance
												45%	100.0%	32.1%	Sax	65.8%	100.0%	2.9%	\$1.9%	21.5%	45%	30.0%	61.3%	46.2%	81.5%
No.	Module 7 _j p	Seam ID,1	Berna ID ₂ 2	Feed no.	SA(Right)	53(Left)	FF(Text)	Si(Bottom)	ST(Front)	S2(Rear)	per Beam	ratio (Right 2mm//wont-	ratio (Left 2mm)/(worst-	ratio (Top 2mm)/(worst-	ntio (Sottom 2mm)/(wont-	ratio (Fornt 2mm)/(wont-	satio (Rear Zmm)/(worst-	ratio (Right 10mm)/(worst-	ratio (Left 10mm)/(wont-	ratio (Top 10mm)/(wont-	ratio (Sottom 10mm)/(worst-	ratio (Front 10mm)/(wont-	ratio (Rear 10mm)/jworst-	ratio (Front Smm)/(wont-	ratio (Rear Smmi)(worst-
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Щ																									
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5		4		1	000	0.22	001	000	011	800		13%	100.0%	36%	04%	495%	321%	09%	37.9%	22%	04%	16.1%	156%	29.5%	254%
7 8		7		2	001	039	002	000	031	019		280	100.0%	73%	05%	521%	259% 322%	07%	4385	27%	0.0%	22.5%	119%	400% 342%	211%
<u>ii</u>		-		- 2	-	-	002	001	917	U10		1/26	005	40	1/26	40/2	400	1476	100	10	100	11.9%	19229	660	205
11		10		2	601	0.43	002	000	624	G17 G18		12%	100.0%	57%	02% 03%	558% 395%	402% 279%	09%	519% 343%	33% 43%	02% 08%	21.2%	188%	36.3% 23.9%	284% 197%
13		2		5	662	035	025	002	049	036		22%	100.0%	49%	17%	516%	383%	14%	354%	27%	13%	16.6%	170%	305%	27.7%
и		15		5	663	1.0	004	001	063	635		45%	100.0%	72%	23%	658% 560%	456% 309%	29% 12%	454%	47% 26%	13%	30.0% 26.1%	285% 151%	46.3% 38.9%	358% 223%
36		8		5	601	1.38	011	000	655	645		0.7%	100.0%	87%	02%	398%	327%	08%	380%	54%	02%	145%	182%	23.4%	259%
17		8		5	001	100	0.15	001	042	042		12%	100.0%	150%	12%	412%	410%	09%	317%	10.8%	08%	12.9%	189%	22.1%	283%
19 20		25		5	602	106	034	001	655	633		10%	100.0%	38% 57%	08% 07%	522% 503%	310%	08% 17%	455% 463%	22%	95%	19.7% 23.8%	116%	33.9% 36.0%	256% 253%
21 22		20		- 5	001	1.14	0.17	001	047	043		10%	100.0%	148%	05%	409%	375%	07%	311%	10.6%	04%	12.7%	194%	217%	27.9%
22		257		-	000	012	023	000	002	020		20% 15%	61.7%	169%	28%	92% 57%	100.0%	15%	204%	11.2%	20% 15%	28% 15%	352% 418%	46% 31%	653% 696%
24		258		1	000	012	0.02	000	001	018		12%	67.6%	131%	17%	40%	100.0%	1.9%	21.6%	85%	1.1%	17%	395%	2.9%	682%
27		20			000	071	031	001	001	0.19		186	961% 698%	59% 152%	27% 52%	435	100.0%	10%	798% 217%	100%	27%	23%	470%	425	701% 656%
25		252		2	000	0.29	025	002	001	007		12%	60.3%	32%	02%	30%	100.0%	15%	21.7%	19%	0.2%	0.8%	479%	15%	755%
29		20		2	600	031	006	001	662	046		15%	68.1% 56.0%	184%	11% 51%	46% 77%	100.0%	13%	228%	11.6%	07% 17%	12%	431%	24%	71.6%
31		25		2	601	0.27	025	001	664	60		19%	648%	64%	13%	87%	100.0%	14%	226%	42%	28%	24%	403%	45%	686%
32 33	M Pate	20		2	000	0.32	037	000	663	040		14%	58.0% 73.3%	121% 258%	02% 28%	63%	100.0%	1.9% 0.8%	203%	6.7%	02% 22%	20%	445% 440%	13%	740% 720%
34		200		5	662	077	025	300	009	105		20%	72.7%	51%	58%	83%	100.0%	18%	194%	11%	45%	28%	371%	44%	635%
37		270		5	662	052	025	W1	034	114		20%	65.4%	33% 2185	05% 04%	105	100.0%	22%	328% 315%	13%	04%	125	565% 575%	195	805% 785%
30		272		- 5	601	059	030	001	008	034		1.7%	63.5%	315%	07%	83%	100.0%	09%	263%	19.2%	05%	17%	458%	56%	656%
29		273		5	662	072	0.10	001	034	121		15%	59.5%	82%	06%	35%	100.0%	12%	219%	54%	04%	12%	482%	21%	782%
-		200		3	002	067	000	0.00	us.			23%	66.9%	22%	U.S.	25%	100.0%	1304	339%	465	WA.	13%	613%	27%	815%
46		1	207	2	001	0.29	005	001	013	0.33		22%	100.0%	160%	20%	432%	922%	17%	332%	100%	17%	13.3%	425%	218% 245%	526%
-6		2	28	2	001	0.47	025	001	013	0.29		12%	100.0%	108%	11%	280%	62.6%	03%	27.1%	67%	0.9%	7.7%	310%	146%	465%
46 47		4	259	2	001	0.43	004	002	G13	030		12% 21%	100.0%	82% 82%	41% 18%	393%	578% 867%	15%	312% 369%	65%	32% 13%	13.7%	272% 417%	265% 244%	418% 610%
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		,	263	4	601	0.70	0.11	001	637	659		14%	100.0%	162%	17%	521%	832%	17%	433%	11.1%	14%	20.7%	426%	352%	634%
53		10	26	4	002	80	033	000	030	680		19%	100.0%	164%	49%	319%	989% 989%	15%	37.1% 458%	97%	38%	13.7%	394% 431%	194% 236%	71.6%
54		10	207	4	000	0.29	0.13	003	0.31	056		1.2%	100.0%	187%	29%	345%	62.9%	07%	351%	12.7%	24%	11.9%	304%	21.1%	458%
55 56		22	255 259	10	005	1.35	0.16	009	077 054	182		28% 17%	100.0% 81.5%	82% 75%	46% 20%	391% 318%	928% 100.0%	17% 20%	336%	42% 47%	38% 15%	146% 145%	386% 546%	248% 22.1%	636% 785%
- 50 59		ä	27	-	USA .		0.39	- Bi		īSĀ		17%	ideas	17375	54%	310%	70376	12%	439%	122%	um.	11.6%	421%	182%	566%
59 60		10	2/2	10	003	146	0.55	002	651	171		15%	86.5% 84.9%	321% 125%	13%	302% 342%	100.0%	17%	311%	215%	12%	15.0%	497% 456%	17.9% 23.8%	728% 751%
61		18	274	10	003	149	0.10	002	069	144		20%	100.0%	60%	10%	403%	854%	17%	419%	16%	07%	15.2%	445%	26.7%	636%
62		20	275	10	004	213	036	001	653	154		18%	100.0% 92.6%	77% 297%	08% 13%	405% 268%	720% 100.0%	13%	469% 360%	41% 200%	05% 10%	18.7%	457% 555%	25.4% 16.8%	599% 780%
ت			_						1																

- M-patch Mid CH

								-	km2 PD(mW)	om2)						ut of all beams lustion distance						t of all beams lustion distance			max ratio out at 5mm evalu	t of all beams untion distance
						1							5.7%	100.0%	31.7%	54%	70.0%	100.0%	15%	49.8%	19.8%	42%	31.6%	61.4%	46.2%	82.2%
No.	Module	Type	Seam ID,1	Berna ID2	Feed no.							per Seam	ratio	ratio	ntio	ntio	ntio	ntio	ratio	ntio	ratio	ratio	ratio	ntio	ratio	ssio
						54(Right	\$3(Left)	55(Top)	SS/Sottom(ST (Front)	S2(Rear)	Back-off	(Right 2mm)/(wonst- surface 2mm)	(Left 2mm)/juonst- surface 2mm)	(Top 2mm(/(worst- surface 2mm)	(Sottom 2mm)/(wont- surface 2mm)	(Fornt 2mm)/(wont- surface 2mm)	(Rear 2mm)((worst- surface 2mm)	(Right 10mm)/(wont- surface 2mm)	(Left 10mm)/(worst- surface 2mm)	(Top 10mm)/(wont- surface 2mm)	(Bottom 10mm)/(worst surface 2mm)	(Front 10mm)/(wont- surface 2mm)	(Rear 10mm)/(worst- surface 2mm)	(Front Smm)/(wont- surface 2mm)	(Rear Smm)/jworst- surface 2mm)
1		+		-	,	000	0.19	002	000	011	006	(40)	15%	100.0%	88%	12%	557%	309%	10%	387%	62%	10%	17.0%	108%	32.0%	196%
2			1		1	000	0.14	002	000	009	027		14%	100.0%	77%	07% 04%	613%	485% 348%	14%	37.3% 33.2%	49% 57%	07% 00%	190%	246% 158%	35.2% 208%	366% 219%
,			2			000	825	OLE	000	CLOS	009		12%	100.0%	7.7%	04%	36.1%	3455	O.Fr.	332%	27%	uun.	16396	158%	200%	239%
2			-			000		uu	000	U30	UUS		13%	100.0%	39%	45%	493%	392%	10%	402%	25%	40%	16.2%	167%	2005	270%
7			·		2	001	625	ULD	000		Uus		20%	100.0%	134%	LON	100%	332%	125	458%	63%	USEN.	46.3%	16279	45/2%	245%
8			7		2	601	0.55	002	000	629	0.19		09%	100.0%	42%	04%	526%	345%	07%	45.0%	13%	04%	204%	134%	36.0%	210%
i,			- V		2 2	001	0.37	002	000	uis 025	U16		125	100.0%	50%	10% 02%	415% 610%	40274	10%	174% 480%	415	54% 02%	12.5%	222% 232%	238% 41.5%	360%
12			10		2	001	0.57	005	000	620	018	_	095	100.0%	50%	07% 07%	342%	315%	05%	304%	34%	02%	11.8%	153%	214%	228%
13			- 12		5	662	0.79	004	001	638	0.36		22%	100.0%	53%	18%	462%	455%	1.9%	381%	27%	13%	17.3%	220%	294%	352%
я		1	13		- 5	663	0.49	009	002	632	0.26		57%	100.0%	17.4%	35%	648%	525%	15%	49.0%	11.5%	27%	31.6%	299%	46.3%	383%
10		1	ъ		- 3	001	1.46	ūυ	000	062	046		U/%	100.0%	6/%	U.F%	4/2%	318%	U5%	37.4%	225	02%	154%	10.7%	250%	230%
17		1	17	1	5	001	0.96	0.17	001	037	030		09% 28%	100.0%	172%	10%	382% 533%	520% 469%	19%	356% 419%	11.8%	09%	11.9% 24.1%	252% 266%	19.6% 37.5%	364% 368%
22		1	15		5	000	0.91	0.05	031	045	0.34		1.3%	100.0%	52%	0.0%	512%	370%	1.0%	45.0%	12%	04%	19.2%	158%	33.8%	264%
20 21			20		5	001	127	0.07	001	063 045	043		1.7%	100.0%	53% 167%	07% 05%	495% 402%	336% 451%	0.9%	454% 383%	25% 11.5%	06% 04%	23.5%	194%	36/2% 21.5%	256% 345%
22			2%		í	001	013	005	001	002	0.21	-	2.3%	59.8%	159%	23%	70%	100.0%	14%	196%	98%	19%	19%	407%	17%	687%
23 24			257		1	000	0.11	ocs	000	000	0.20		15%	54.9%	154%	21%	46%	100.0%	1.0%	164%	9.7%	15%	15%	400%	28%	67.7%
ō.			235 239	-		000	012	GES GES	000	000	0.17 0.13	-	18%	69.7% 71.2%	152% 112%	18%	42% 112%	100.0%	12%	22.4% 240%	10.3% 7.2%	12% 32%	18%	385% 485%	24% 64%	67.3% 74.4%
ă			260		,	600	Q11	GER	000	601	0.18		11%	61.8%	67%	22%	365	100.0%	11%	219%	51%	17%	11%	534%	17%	764%
27 26			201		2	001	023	006	000	003	0.11		17%	74.5% 59.0%	175%	45%	32%	100.0%	18%	212%	11.8%	35% 02%	19%	452% 472%	196	753%
29			263		2	661	0.30	006	001	662	0.45		1.3%	65.8%	169%	11%	42%	100.0%	1.1%	224%	11.1%	09%	16%	41.1%	24%	658%
30 33			254 265		2	001	0.17	002	001	003	0.27		18% 27%	63.5% 64.5%	142% 57%	42% 28%	80% 66%	100.0%	15%	215%	10.2%	29% 19%	28%	445% 426%	44%	704% 702%
12	м	Patish	250		2	000	0.33	007	000	000	0.56		14%	55.6%	11.8%	02%	21%	100.0%	1.1%	189%	66%	0.2%	09%	47.1%	14%	75.6%
33 34			207		2 5	001	0.27	0.10	001	002	120		13% 23%	68.0% 71.0%	249% 57%	28%	51% 49%	100.0%	0.8% 1.2%	214%	160%	23% 12%	15%	41.1% 39.3%	25%	71.1% 658%
25			200		5	002	0.65	007	000	004		_	1.0%	60.5%	67%	0.9%	41%	100.0%	1.3%	251%	47%	02%	15%	549%	25%	814%
X V			270 271		5	003	0.59	005	001	004	0.95		30% 196	62.2%	48% 200%	05% 03%	40% 32%	100.0%	24%	301% 289%	29% 13.2%	04% 02%	19%	585% 559%	27% 1%	811% 782%
30			272	-	3	001	051	0.02	000	607	1.00	-	11%	61.5%	317%	08%	66%	100.0%	08%	250%	198%	00%	37%	438%	52%	694%
39 40			273		- 5	662	0.71	0.10	001	004	120		1.6%	59.5% 60.8%	85%	04% 04%	36%	100.0%	13%	216%	60%	0.3%	14%	469%	23%	785%
0		1	274	1	5	662	063	007	000	003	0.96	₩	22%	60.E% 64.5%	19% 68%	95	33%	100.0%	22%	31.7%	19%	0.2%	19%	567% 614%	10%	801%
Q.		1	276		- 5	662	0.74	0.02	031	664	121		12%	60.8%	264%	08%	31%	100.0%	07%	25.0%	17.5%	04%	12%	493%	19%	754%
e u		1	1	257	2	601	0.36	005	001	016	0.33	⊢ -	13%	100.0% 89.1%	203% 17.1%	19% 20%	453% 392%	917%	22%	29.2% 28.3%	10.8%	25% 17%	13.9%	347% 440%	26.4% 22.9%	706%
5		1	2	255	2	000	0.45	006	000	012	0.25		1.8%	100.0%	113%	09%	267%	624%	13%	30.7%	82%	07%	69%	254%	140%	442%
46 47		1	3 4	200	2	000	0.39	005	002	017 012	0.27	↓ —	10%	100.0%	12.0%	38% 21%	426% 378%	654% 857%	12%	309% 381%	82% 67%	28% 15%	12.8%	352% 430%	258% 229%	510% 631%
4							1					<u> </u>	190	900	-	-	400	IIII/S		1100	-		15.00	4775	//85	7505
8		1	7	23	4	001	0.70	011	001	034	057	HΞ	13%	100.0%	163%	19%	454%	820%	10%	419%	11.1%	14%	188%	47.3% 39.7%	12.9%	758% 613%
53		1	8	254	4	001	0.59	0.10	002	0.26	056		25%	100.0%	162%	34%	435%	951%	15%	405%	11.4%	24%	13.8%	430%	247%	687%
22		1	9	265	4	661	0.00	0.05	000	630	0.63	₩	28% 15%	100.0% 79.6%	11.6%	44%	296% 342%	916%	23%	406% 334%	7.4% 59%	15% 02%	11.2% 13.4%	422% 463%	190%	65.7% 75.1%
54		1	- 15	207	4	601	0.85	615	002	624	057		17%	100.0%	181%	28%	261%	669%	0.8%	334%	12.1%	22%	93%	295%	165%	461%
55		1	- 12	266	10	006	1.84	0.15	006	659	1.50	1	10%	92.9%	75%	32%	300%	100.0%	19%	386%	46%	24%	110%	442%	20.5%	698%
57		1	я	270	10	004	1.80	0.14	001	684	152		19%	100.0%	78%	08%	469%	842%	18%	446%	51%	65%	22.1%	502%	33.4%	685%
50 59			5	2/1	10	003	147	036	001	075 047	152		13%	73.7%	159%	04% 11%	329% 237%	668% 100.0%	10%	41.2% 278%	11.0%	54% 02%	12.0%	393% 472%	19.5%	542% 658%
		1					1	_			ட															
G2			- 29	275	10	003	212	0.00	001	629	146		13%	100.0%	75%	08%	374%	602%	11%	412%	40%	05%	17.9%	537% 439%	26.7%	57.6%
		1	I -	1	1		1	1			1	1				1				1			1	1	1	

- M-patch High CH

								4	cm2 PD(mW()c	om2)						at of all beams lustion distance						at of all beams fustion distance			max ratio ou at 5mm evak	at of all beams lustion distance
П													12%	100.0%	30.2%	54%	61.9%	100.0%	2.9%	511%	20.0%	47%	29.4%	61.2%	47.4%	81.9%
No. I	Modda	Turn	Seam ID,1	Eema D2	Feed no.							ber	ratio	ratio	ratio	mtio	ratio	mtio	ratio	natio	ratio	ratio	ratio	ratio	ratio	asio
		- 194				S4(Right)	\$3(Left)	55(Top)	SS(Ecttorn)	ST (Front)	S2(Rear)	Beam Back-off	(Right 2mm)/jwont-	(Left 2mm)/(wont-	(Top 2mmi/lyvorst-	(Bottom 2mm)/(wont-	Fornt 2mm)/(wont-	(Rear 2mm)/(worst-	(Right 10mm)/jwont-	(Left 10mm)/(worst-	(Top 10mm)/(wont-	(Sottom 10mm)/(worst	(Front 10mm)/(wont-	(Rear 10mm)/(worst-	(Front Smm)/(wont-	(Rear Smm)/(worst-
ш												(40)	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm)	surface 2mm)
1		l l	0		1	000	0.18	002	000	000	005	_	186	100.0%	120%	16%	563% 593%	268%	17%	399% 394%	7.7% 58%	17%	18.6% 19.7%	104%	33.9% 35.8%	17.5% 30.7%
-		L								_										33.11						
4		l t	,			000	024	uu	000	011	009		GEN.	100.0%	49%	1076	476%	362% 442%	U4%	370% 427%	37%	12%	140%	164%	267% 292%	247%
,			1			000	u.rs	GEE	000	COS	ous		LO	100.0%	38%	u5%	4/8%	44,3%	0.5%	4275	27%	U39e	16,2%	104%	2020	303%
,		l F			- 2	001	023	uus	000	UNS	007		28%	100.0%	228%	12%	667%	303%	18%	221%	145%	Link	264%	1,36%	47.4%	202%
			,		2	601	0.53	002	000	cos.	0.20		0.9%	100.0%	41%	04%	497%	384%	0.8%	464%	12%	64%	20.3%	153%	345%	254%
ř.		l F	ij		- 2	- COU	0.54	ULZ.	001	U14	UIG		12%	100.0%	475	21%	42074	524%	USFS.	31074	13%	100	12.7%	2975	240%	365%
11		l t	10		2	001	0.37	CCS	000	023	013		1.3%	100.0%	83%	08%	603%	349%	1.1%	507%	43%	05%	27.9%	177%	42.4%	257%
12		L	12		5	000	0.50	004	000	037	017		27%	100.0%	84% 65%	08% 14%	331% 495%	345% 481%	14%	309% 406%	11%	10%	11.0% 18.5%	163%	20.5% 32.0%	235% 372%
12		l F	13		5	002	0.45	0.10	001	029	0.25	-	38%	100.0%	22.7%	57%	641%	563%	29%	400% 514%	15.1%	32%	28.3%	295%	44.3%	394%
		l					ļ	ļ																		
10		I	9		5	001	0.85	017	001	032	046		GEN.	100.0%	194%	12%	370%	314% 536%	05%	37.3%	1185	17%	12.9%	250%	20.3%	37.2%
15		H	ű.		5	601	0.57	0.09	001	632	026	-	24%	100.0%	152%	24%	564%	463%	17%	467%	91%	19%	249%	284%	394%	382%
19		l f	25		5	001	0.61	006	031	640	031		14%	100.0%	78%	10%	497%	366%	11%	462%	43%	08%	200%	160%	33.9%	27.3%
Z		L				_		_	-		_															
22		l F	26		-	001	913	005	000	002	021		2.7%	612%	131%	19%	319%	45/75 10075	14%	200%	120% 50%	14%	23%	242% 416%	212%	942% 692%
23		l h	207		- 1	600	G11	002	000	661	0.19	-	1.0%	544%	119%	16%	41%	100.0%	1.0%	161%	7.8%	16%	16%	369%	26%	66.3%
24		ı	256		1	600	Q11	902	000	601	0.16		12%	69.5%	146%	18%	53%	100.0%	12%	207%	58%	12%	24%	384%	37%	665%
A		l k	ev.		-	000	911	991	000	900	9.10	-	LO	90.05	40	100	20	19025	179	2125	6126	L/Ds	US	5075	100	74976
27		l f	251		2	001	0.25	005	031	003	0.12		1.9%	78.7%	145%	42%	77%	100.0%	15%	247%	10.2%	37%	22%	469%	37%	725%
25			B		2	001	0.27	002	000	002	0.47		1.7% 1.8%	57.1%	32%	02%	38%	100.0%	15%	200%	17%	02%	13%	47.1%	25%	752%
			EN.		2	001	0.29	GDE	001	002	0.44		LEN	66.0%	143%	17%	44%	100.0%	1.1%	234%	94%	07%	1.6%	41.8%	2204	703%
2		l F	20		2	001	0.00	ULK	001	CES	0.46		2.0%	6275	32%	100%	50%	1000%	17%	210%	23%	1/%	21%	431%	225	706%
33	м	Patish	-		-	-	920	_	991	002	-		140	70.4%	22/76		20	IODES.	179	236%	H25	22%	18%	402%	479	704%
34		H	20		5	003	0.53	005	034	005	126	-	23%	65.5%	36%	29%	40%	100.0%	17%	200%	21%	24%	16%	403%	24%	67.4%
35		l t	20		- 5	662	066	0.06	000	005	1.06		1.6%	61.8%	72%	02%	465	100.0%	1.9%	247%	53%	02%	15%	540%	27%	81.0%
36			270		- 5	003	0.58	004	000	604	0.94		30%	61.9%	46%	54%	435	100.0%	25%	259%	27%	0.3%	19%	576%	29%	803%
30		l þ	272		-	500	662	59	001	506	100		10%	613%	1075	196	900	1000%	07%	242%	1615	196	10%	4225	475	67.4%
39		l t	273		- 5	662	0.71	0.09	001	005	122		1.6%	56.1%	78%	04%	37%	100.0%	12%	201%	54%	02%	14%	47.4%	24%	77.3%
40			274		- 5	603	065	054	000	664	1.05		30% 74%	62.5%	42%	04% 03%	42%	100.0%	24%	275%	21%	02%	20%	572% 612%	31%	801%
41		l l	276		3	602	022	030	000	004	121	-	125	59.9%	257%	03%	275	1000%	02%	217%	17.6%	94%	13%	401%	185	740%
40		l F	0	26	2	601	0.35	000	001	015	031	-	14%	100.0%	21.8%	32%	431%	894%	23%	351%	12.1%	26%	13.8%	339%	258%	589%
40 40 46		ıt	1	257	2	601	025	004	031	630	0.30		1.7%	844%	132%	20%	334%	100.0%	14%	251%	85%	14%	11.5%	424%	197%	695%
45		1 [2	25	2	000	0.42	006	001	012	0.25		24%	100.0%	148%	14%	29.1%	671% 731%	17%	325% 341%	91% 89%	10%	7.6%	267%	15.3%	456%
40		l F	3	250	2	000	0.37	005	001	016	0.27	-	17%	100.0%	124%	38% 19%	427% 350%	731%	10%	341%	89% 7.4%	30% 16%	142%	382% 437%	26.9%	540% 656%
47 48		l H	5	251	4	001	063	009	034	015	0.68		12%	92.8%	111%	54%	262%	100.0%	15%	351%	85%	42%	91%	444%	16.3%	706%
50			-	- Au	-	-	-	-	901	- 52	U30		US	1000%	13/76	Wh.	900	83276	100	4925	19376	LUD-	04%	400	124%	646%
							L	-	900					1000%	6/3	405			475	4075				3075		
53		F	20	26	- 4	661	662	013	001	627	0.80		13%	77.8%	168%	90%	341%	1000%	11%	343%	10.3%	05%	1485	47.4%	23.9%	764%
_		l L		_			L	L		L-		_	256	9045	7875	475	2015	1000%	60%	374%	405	22%	1225	462%	1975	709%
55		1 1	S F	20	- 10	004	113	0.23	023	502	1.68	-	22%	67.5%	118%	20%	249%	100.0%	18%	256%	405 925	13%	112%	503%	17.0%	768%
-		l H	я	270	ъ	003	134	0.13	001	684	151	t	20%	100.0%	75%	07%	481%	865%	17%	47.0%	53%	05%	23.2%	51.1%	345%	709%
53		l	25	271	10	003	217	0.30	031	069	145		1.9%	100.0%	117%	05%	317%	670%	11%	411%	58%	04%	110%	387%	20.2%	516%
53		l l	12	272	10	003	1.36	0.55	023	035	1.93	1	14%	70.5% 69.7%	286% 137%	15%	188%	100.0%	10%	281% 255%	200%	13%	78% 110%	458% 470%	11.5% 19.6%	685% 765%
63		H	18	273	10	005	136	0.75	001	049	1.43	-	34%	948%	103%	08%	339%	100.0%	27%	255% 395%	91% 59%	13%	13.6%	564%	23.1%	791%
_					<u>L</u>		┺-	Ь.		<u> </u>	ь.	┺-														
ω.			£	7.0	-	000	104	039	002	040	213	1	1206	415%	27.8%	GS5s	20.3%	1000%	U2%	322%	194%	08%	62%	517%	12.1%	735%

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

- M-patch Low CH

							4	om2 PD(mW()c	m2)						it of all beams lustion distance						at of all beams éuation distance			maxinatio out at 5mm evalu	
												47%	100.0%	20.9%	26%	\$1.3%	BLOX	10%	71.2%	MSN	2.1%	21.2%	510%	35.2%	71.2%
No. M	todule Tv	e Seam ID,1	Berna ID2	Feed no.							per Beam	ratio	ntio	natio	ntio	ntio	ntio	ratio	ntio	ratio	ratio	ratio	ntio	ratio	atio
					S4(Right)	\$3(Left)	55(Top)	SS/Ecttom(ST (Front)	S2(Rear)	Back-off	(Right 2mm)/(wonst- surface 2mm)	(Left 2mm)/(wont- surface 2mm)	(Top 2mm)/(worst- surface 2mm)	(Sottom 2mm)/(wont- surface 2mm)	(Fornt 2mm)/(wont- surface 2mm)	(Rear 2mm)/(worst- surface 2mm)	(Right 10mm)/jwont- surface 2mm)	(Left 10mm)/(worst- surface 2mm)	(Top 10mm)/(wont- surface 2mm)	(Sottom 10mm)/(worst- surface 2mm)	(Front 10mm)/(wont- surface 2mm)	(Rear 10mm)/(worst- surface 2mm)	(Front Smm)/(wont- surface 2mm)	(Rear Smm)/(worst- surface 2mm)
1	_	0		1	000	0.14	002	000	003	0.11	(dl)	67%	100.0%	111%	07%	222%	785%	07%	389%	63%	07%	69%	361%	139%	576%
ŝ		- 2		-	600	0.16	601	000	900	013		136	100.0%	63%	13%	209%	816%	13%	367%	46	86%	7.6%	361%	148%	589%
4		3		1	600	0.19	920	000	004	015		1.7%	100.0%	38%	Q5%	220%	823%	1.1%	468%	27%	95%	86%	364%	145%	602%
5		- 4		,	600	0.15	002	000	003	010		1.4%	100.0%	41% 92%	07% 13%	200%	676% 691%	1.4% 0.8%	428% 362%	28% 57%	07% 13%	62% 92%	276% 305%	12.4%	469% 462%
7		6		2	600	0.33	002	000	009	0.26		0.9%	100.0%	48%	03%	261%	845%	09%	533%	27%	0.9%	109%	452%	17.9%	67.0%
8		7		2	000	0.12	004	000	009	0.25		GEN.	100.0%	114%	03%	285%	765%	06%	522%	63%	0.9%	11.7%	389%	192%	582%
10		v		2	001	033	002	000	008	0.30		17%	100.0%	405	12%	240%	772% 852%	14%	401%	40%	075	50%	332% 407%	163%	539% 635%
12		10		2	001	0.38	002	000	033	0.30		1.8%	100.0%	55%	08%	265%	733%	13%	368%	40%	08%	10.1%	249%	18.3%	481%
-		-		-	-	_	900	001	9/1	059		1406	100.0%	425	975	2015	83379	UVS.	533%	475	905	1925	46/5	4120	67.376
15 16		я		5	601	0.73	004	000	617	054		1.9%	100.0%	58%	04%	229%	866%	17%	57,6%	16%	0.3%	19%	462%	158%	656%
		8		5	601	0.77	GEF	000	625	056		69%	100.0%	87%	04%	325%	723%	0.8%	512%	56%	0.9%	142%	357%	22.6%	550%
10		7		- 3	601	035	000	000	021	055		125	100.0%	17%	00%	315%	810%	02% 07%	528% 9280	20%	00%	164%	404% 550%	225% 163%	616% 712%
20		- 10	-	- 5	601	0.54	005	000	034	059		07%	100.0%	67%	02%	255%	814%	03%	554% 574%	425	07%	12.5%	530% 448%	19,2%	639%
20 21		20		- 5	80	0.71	ŒΠ	000	617	055		12%	100.0%	152%	06%	242%	769%	07%	469%	11.1%	06%	104%	377%	17.0%	57.0%
22 23 24		257		1	000	0.16	002	000	005	006		12%	100.0% 100.0%	75% 93%	06%	329% 326%	522% 366%	05%	429%	43% 52%	06%	99% 105%	248% 151%	180% 180%	391% 250%
24		255		1	000		act	000	007	0.09		1.7%	100.0%	50%	06%	376%	470%	1.1%	530%	13%	06%	12.7%	210%	23.2%	337%
25		259		-	000	0.20	oct oct	000	007	027		1.0%	100.0%	67% 78%	05% 12%	355% 392%	365% 285%	05%	462% 405%	41%	05%	10.7% 11.4%	152%	20.3% 22.2%	234%
25 27 28		207	-	2	000	0.50	005	000	022	015		04%	100.0%	92%	05%	443%	302%	04%	465% 535%	64%	04%	149%	117%	27.6%	203%
25		262		2	000	0.26	002	000	033	015		27%	100.0%	78%	04%	374%	557%	19%	618%	42%	04%	110%	298%	23.3%	385%
20 20 20 20 20 20 20 20 20 20 20 20 20 2		263		2	001	0.35	50 50 50	000	034 035	0.16		14%	100.0% 100.0%	50%	06% 07%	395%	450% 445%	1.1%	607% 537%	46%	0.9% 0.4%	140%	208%	254% 248%	325% 340%
30		265		2	601	0.33	002	000	612	017		1.8%	100.0%	45%	09%	349%	524%	12%	62.7%	24%	08%	108%	22.3%	21.1%	386%
22	M Pa	sch 266		2	601	028	900	000	009	020		22%	100.0%	47%	04% 05%	312%	703%	14%	62.7% 406%	22% 61%	02%	11.8%	376% 123%	19.7%	548% 198%
		200		- 5	601	1.06	0.21	001	651	0.31		1.0%	100.0%	203%	10%	460%	297%	05%	535%	13.7%	07%	202%	143%	33.2%	216%
35		200		- 5	601	0.61	007	001	624	025		186	100.0% 100.0%	114%	08%	396% 228%	405%	13%	560%	82%	05%	12.2%	166%	241%	269%
36				,	602	0.4	OLE	031	u17	U36			100.0%		ues.		753%			19%	05%		435%		605%
30		2/2		,	001	u.vv	020	UUI	650	U26		12%	100.0%	34%	un.	510%	200%	ues	545%	67%	02%	21.7%	130%	350%	212%
40 40 40 44		275		3	003	033	ous ous	001	025	0.13		47% 20%	100.0%	47%	08%	372% 338%	657%	14%	71.2%	20%	05%	12.9%	353%	258% 212%	462% 510%
42		276		5	002	1.01	006	031	052	0.35		15%	100.0%	58%	05%	513%	341%	08%	572%	16%	0.3%	21.2%	179%	35.3%	256%
45		0	26	2	000	0.36	ocs	000	012	0.21		17%	100.0%	15%	08%	329%	591%	0.8%	401%	58%	05%	109%	301%	193%	454%
46		1 2	257	2	000	0.37	930	000	011	0.20		1.7%	100.0% 100.0%	62%	12%	289% 342%	545% 575%	08% 10%	463% 47.6%	43%	05% 08%	10.2% 11.9%	259% 235%	184% 22.3%	388% 380%
46		3	20	2	001	0.41	acs	000	015	0.26		1.7%	100.0%	64%	07%	367%	643%	12%	437%	49%	05%	12.5%	303%	22.7%	47.7%
40		- 5	21	4	601	0.73		001	635	0.33		CEN	100.0%	132%	11%	485%	452%	08%	608%	83%	CB%	18.3%	193%	32.1%	319%
50		- 6	20	4	001	50.0	900	000	025	052		1.7%	100.0%	11.6%	0.9% 0.8%	334% 388%	690% 630%	15%	57.0% 56.7%	36% 70%	0.5%	12.4% 14.5%	307% 294%	22.5% 24.6%	49.6% 46.0%
52			24	4	661	0.88	006	001	631	040		12%	100.0%	72%	99%	347%	451%	0.8%	442%	49%	G8%	12.4%	218%	22.3%	317%
23		9	25	4	602	0.72	004	001	625	045		21%	100.0%	67%	54% 02%	343%	618% 728%	14%	547%	15%	12%	140% 11.2%	245%	23.1% 25.4%	420% 562%
54		10	207	1	601	0.92	0.00	031	629	042		13%	100.0%	12%	05%	317%	453%	09%	172%	67%	05%	12.3%	185%	212%	309%
2		-	20	÷	002	100	5.00	002	062	102		1,0%	100.0%	67%	12%	42276	695%	14%	52.7%	445	U/%	17.5%	33974	287%	531%
27		я	270	10	004	157	120	021	036	1.19		25%	100.0%	48%	07%	227%	758%	15%	644%	24%	04%	92%	445%	149%	592%
60		17	273	10	003	1.00	027	003	080	104		18%	100.0%	129%	09%	99.3% 447%	424% 578%	12%	422% 587%	17%	00%	196%	207%	20.2% 31.1%	314% 414%
61		18	274	10	004	1.46	007	002	045	1.09		29%	100.0%	48%	12%	327%	749%	19%	582%	29%	09%	14.0%	441%	23.1%	598%
62		39	275	10	002	1.93	0.13	031	064	1.27		1.7%	100.0%	67%	07%	332%	654%	0.8%	609%	19%	05%	13.7%	362%	21.9%	507%

- M-patch Mid CH

									4cm2 PD(mW(t)	cm2)						t of all beams uation distance						t of all beams lustion distance			maxinatio out at 5mm evalu	t of all beams uation distance
													10%	100.0%	19.9%	21%	61.4%	97.4%	21%	62.9%	11.9%	19%	27.4%	548%	41.1%	77.3%
No	Module	Type	Seam ID,1	Berna ID ₂ 2	Feed no.							per	ratio	ratio	natio	milio	ratio	mtio	ratio	ratio	ratio	ratio	ratio	ratio	ratio	asio
						SA(Right	S3(Left	55(Top)	SS/Editor(ST (Front)	S2(Rear)	Back-off	(Right 2mm(/)worst- surface 2mm)	(Left 2mm)/(wont- surface 2mm)	(Top 2mml/(worst- surface 2mm)	(Bottom 2mm)/(wont- surface 2mm)	(Fornt 2mm)/(wont- surface 2mm)	(Rear 2mm)/(worst- surface 2mm)	(Right 10mm)/(wont- surface 2mm)	(Left 10mm)/(worst- surface 2mm)	(Top 10mm)/(wont- surface 2mm)	(Sottom 10mm)/(worst- surface 2mm)	(Front 10mm)/(worst- surface 2mm)	(Rear 10mm)/(worst- surface 2mm)	(Front Smm)/(wont- surface 2mm)	(Rear Smm)/(worst- surface 2mm)
Ι,		_			٠,	000	0.16	002	030	003	015	(40)	17%	100.0%	109%	95% 05%	180%	831%	17%	9211209 2711711 41.0%	21%	92/1909 2/1979) 05%	21%	604%	11.5%	628%
2			1		- 1	000	0.25	000	000	005	0.20		04%	100.0%	49%	GB%	197%	754%	04%	417%	10%	08%	7.6%	362%	12.9%	564%
3			2		1	000	0.18	act	000	003	017		1.7%	100.0%	49% 12%	05% 04%	186% 206%	929%	13%	426% 465%	13%	05% 04%	7.7% 7.8%	432%	12.6% 11.6%	694% 663%
5			- 4		-	000	0.17	000	000	603	013		185	100.0%	18%	08%	182%	765%	12%	465%	12%	00%	59%	318%	11.2%	535%
6			- 5		2	600	0.15	005	001	606	0.26		des.	100.0%	113%	17%	17.1%	801%	08%	382%	7.8%	17%	58%	416%	10.1%	613%
			7		2	600	0.51	002	000	609	040		07%	100.0%	15%	02%	199%	923%	07%	540% 527%	22% 49%	02%	85% 93%	514%	13.8%	746%
9			8		2	000	0.35	005	031	300	0.25		Gets.	100.0%	143%	20%	175%	722%	05%	309%	89%	17%	57%	341%	100%	507%
10			9		2	000	0.40	002	000	009	0.35		10%	100.0%	23% 38%	10%	233%	885% 91.1%	0.8%	426% 509%	15%	02%	88% 75%	381% 514%	15.3% 12.2%	627% 737%
12			- 11		2	000	0.41	act	000	009	0.34		0.7%	100.0%	15%	07%	230%	835%	05%	400%	25%	05%	81%	333%	14.8%	575%
13		1	12		5	001	0.54	0.10	032	009	0.75		08% 12%	100.0%	120%	21%	112%	898% 974%	07% 08%	412% 548%	81% 15%	19%	15%	420% 548%	62% 163%	636% 773%
15			Я		5	002	1.19	002	000	034	107		13%	100.0%	20%	02%	201%	901%	1.0%	602%	10%	0.2%	89%	529%	140%	734%
16		1	8		5	600	1.15	006	031	638	035		0.7%	100.0%	72%	04%	243%	824%	05%	544%	485	03% 14%	11.0%	460%	17.2%	659%
16			7		5	001	0.61	005	001	614	056	-	1.8%	100.0%	73%	GB%	237%	957%	12%	528%	56%	08%	100%	502%	16.1%	734%
20					,	OD1	1300	uus	000	634	UNG		UVS.	100.0%	23%	um.	218%	913%	US%	57.1%	18%	u.m.	10%	540%	150%	746%
23			20		5	001	0.99	933	001	627	100		12%	100.0%	11%	04%	238%	823%	09%	601% 508%	225 925	0.9%	108%	467%	167%	654%
22			256		-	600	0.16	920	000	006	006		1.7%	100.0%	63%	08%	451%	451%	08%	469%	46%	08%	143%	217%	26.9%	126%
23			257		-	600	021	920	000	011	006		14%	100.0%	60%	05%	500% 461%	274% 323%	05%	401% 503%	18%	05%	11.8%	142%	25.5% 29.3%	198%
25			259		- 1	000	0.16	001	000	007	007		12%	100.0%	45%	13%	432%	47.1%	19%	413%	12%	13%	12.3%	245%	23.9%	342%
25			250		1 2	000	0.19	oct	000	G33 G21	035		18%	100.0%	59%	11%	514% 452%	303%	17%	432%	43%	05%	14.1%	11.9% 12.5%	29.2% 28.8%	195% 198%
25			202		2	001	0.46	002	000	013	0.14		27%	100.0%	67%	08%	45376 527%	565%	17%	407% 582%	29%	04%	19.2%	289%	33.5%	41.8%
29			253		2	000	0.27	act	000	034	0.11		15%	100.0%	45%	17%	517%	412%	11%	588%	10%	07%	21.0%	187%	35.2%	281%
30			254		2	001	0.50	004	000	023	012		12%	100.0%	27% 65%	13%	473% 454%	234% 355%	20%	481% 564%	46%	04% 13%	186%	99% 163%	32.3% 28.7%	160% 254%
22	м	Patish	250		2	000	0.37	002	000	076	017		14%	100.0%	46%	05%	442%	461%	0.8%	547%	27%	0.3%	17.9%	230%	30.1%	341%
33			20		2	600	0.12	000	000	634	012	_	12%	100.0%	19%	12%	417% 571%	37.3% 226%	09% 11%	352% 516%	119%	09% 14%	164% 27.4%	185%	26.2% 41.3%	272% 163%
30			- 20		- 5	001	038	UDA	001	0.02	uzs	-	2.8%	100.0%	73%	12%	55376	432%	19%	36.7%	435	U/%	203%	198%	360%	210%
30			270		- 5	662	0.67	004	001	628	0.31		22% 18%	100.0%	63% 83%	07% 19%	422%	469%	18%	603%	19%	07%	143% 21.3%	228% 170%	26.3%	346%
30			272		3	003	0.54	014	001	657	0.16		37%	100.0%	153%	06%	608%	192%	14%	507%	10.3%	06%	26.7%	77%	410%	112%
39 40			273		- 5	002	0.74	005	031	635	0.35		22%	100.0%	62%	15%	476%	469%	17%	62.4%	26%	1.1%	258%	22.2%	31.9%	349%
40			274		5	602	0.00	002	001	034	0.23		12%	100.0%	19%	12%	573%	392% 435%	15%	551% 629%	28% 41%	97%	20.7%	208%	38.0% 34.9%	307% 325%
42		1	276		5	662	0.93	010	031	657	0.24		1.8%	100.0%	107%	08%	61.4%	260%	10%	57.3%	7.9%	04%	27.4%	107%	43.1%	163%
40		1	- 0	26	2	600	0.38	005	000	613	0.29		17%	100.0%	118%	08%	350%	758%	11%	469% 393%	93% 41%	05%	12.2%	408% 265%	21.8%	592% 405%
46		1	2	28	2	601	0.36	005	000	014	0.25		12%	100.0%	78%	11%	402%	701%	11%	419%	54%	11%	158%	327%	26.5%	515%
46 47		1	3	200 200	2	001	0.44	002	031	013 014	0.31		20%	100.0%	29% 43%	11%	254% 41.6%	68.7%	14%	414%	20% 35%	09%	9.0% 12.4%	367% 217%	17.1% 23.4%	532% 382%
45		1	5	21	4	002	0.68	007	031	031	0.36		25%	100.0%	9.7%	16%	454%	533%	12%	487%	6.3%	15%	17.7%	258%	306%	387%
40		1	£ 7	252 253	4	000	0.79	004	000	036	059		14%	100.0%	52% 87%	05% 08%	332% 378%	735% 693%	17%	545% 502%	14%	04%	13.5% 16.2%	393% 354%	22.2% 26.2%	579% 531%
50		1	7 8	253 254	4	001	1.01	0.06	021	030	0.55	-	14%	100.0% 100.0%	87% 104%	10%	378%	693% 375%	1.7%	502% 405%	67%	05%	16.2% 15.8%	354% 161%	26.2% 27.3%	531% 253%
2		1	9	255	4	003	0.72	ocs	021	026	0.45		38%	100.0%	40%	18%	355%	659%	21%	481%	26%	15%	140%	289%	23.0%	472% 518%
53		1	10	266	1 4	001	0.79	004	021	027	054	<u> </u>	1.4%	100.0%	52%	10%	324%	692% 575%	02%	467% 349%	29% 45%	04%	13.9%	363% 273%	217% 213%	538% 426%
55		1	- 12	266	10	005	1.92	0.32	003	672	093		24%	100.0%	166%	17%	374%	463%	11%	419%	10.7%	18%	18.9%	245%	268%	361%
56		1	3	200	- 10	662	1.07	009	001	662	116		1.0%	100.0%	57%	10%	422% 284%	768% 722%	12%	529% 584%	125	05%	17.7%	448% 422%	28.7% 18.1%	626% 562%
22		1	8	271	10	003	234	0.21	022	112	1.37		15%	100.0%	97%	08%	479%	587%	12%	565%	66%	05%	20.9%	292%	33.9%	43.7%
53		1	26	272	10	005	213	0.29	025	092	036		27%	100.0%	115%	13%	431%	453%	1.1%	418%	97%	1.1%	17.6%	215%	29.4%	331%
63		1	17	273	10	003	1.73	0.11	032	064	1.04	-	19%	100.0% 100.0%	69% 37%	14%	40.2% 35.2%	654% 741%	1.3% 1.2%	563% 518%	45% 19%	02%	18.2% 16.7%	331% 427%	27.7%	486% 596%
62		1	10	275	10	004	214	014	002	087	143		1.8%	100.0%	67%	11%	405%	67.1%	1.3%	601%	16%	0.7%	16.2%	346%	27.4%	49.7%
63		1	20	276	10	003	234	0.36	031	114	1.20		1.2%	100.0%	152%	05%	454%	512%	07%	498%	11.3%	04%	21.5%	253%	344%	37.9%

- M-patch High CH

								4	m2 PD)mW(ti	cm2)						it of all beams uation distance						t of all beams lustion distance			maxinatio out at 5mm evalu	ut of all beams uation distance
													47%	100.0%	16.3%	17%	SEEK	948%	13%	60.0%	11.9%	16%	27.2%	SEEX	42.FK	77.9%
No	Module	Type	Seam ID,1	Eema D2	Feed no.	S4(Right)	SS(Left)	55(Top)	St/Settom(ST (Front)	S2(Rear)	per Beam	ratio	ratio	natio	ntio	ratio	ntio	ratio	ntio	ratio	ratio	ratio	ntio	ratio	ratio (Rear Smm)/fevorat-
						34(kight)	zoinei	soliebi	зејвовалц	21(HORE)	52(9880)	Back-of (dB)	(Right 2mm(/)worst- surface 2mm)	(Left 2mm)/juonst- surface 2mm)	(Top 2mm(/(worst- surface 2mm)	(Bottom 2mm)/(wont- surface 2mm)	(Fornt 2mm) (wont- surface 2mm)	(Rear 2mm)/(worst- surface 2mm)	(Right 10mm)/(wont- surface 2mm)	(Left 10mm(/(worst- surface 2mm)	(Top 10mm)/(wont- surface 2mm)	(Bottom 10mm)/(worst- surface 2mm)	(Front 10mm(/(wont- surface 2mm)	(Rear 10mm)(wont- surface 2mm)	(Front Smm)/(wont- surface 2mm)	(Rear Smm)/(worst- surface 2mm)
1		H	0		1	600	0.19	002 001	000	603	016		05%	100.0%	113%	05% 17%	158%	866%	05%	366%	65% 25%	05%	54% 72%	495% 356%	91% 122%	683% 554%
3			2		-	000	024	052	000	005	017		GBN	100.0%	66%	64%	224%	723% 693%	04%	357%	46%	04%	7.9%	299%	141%	502%
4			3			600	0.24	GER	000	605	019		64% 47h	100.0%	21%	54%	211%	802%	04%	435%	17%	64%	7.6%	418%	135%	612% 4907h
6			5		2	88	0.38	054	001	606	0.28		0.5%	100.0%	10%	18%	157%	754%	05%	129%	60%	18%	57%	423%	59%	559%
7 8			7		2	600	0.46	000	000	610	043		0.4% 0.6%	100.0%	29%	04% 02%	224% 199%	934% 811%	04%	537% 516%	13%	0.2%	54% 54%	564% 454%	15.1%	77.9% 65.5%
9			8		2	600	0.39	005	031	006	0.26		05% 05%	100.0% 100.0%	11.8%	15%	146% 215%	660%	05%	263%	69%	15%	46% 21%	345% 297%	E4% 128%	463% 458%
11			10		2	000	0.49	002	000	011	0.35		0.6%	100.0%	41%	02%	224%	772%	04%	461%	29%	0.2%	93%	41.6%	148%	605%
12			11		2 5	000	0.50	275	000	011	027		0.6% 0.9%	100.0%	54% 157%	16%	220% 153%	529% 543%	0.4%	341% 406%	18%	06% 14%	48%	220%	12.2%	343% 413%
14			ซ		5	8	0.77	004	031	015	0.71		09%	100.0%	58%	09%	195%	925%	03%	531%	24%	05%	88%	566%	13.3%	756%
15			75		5	001	1.30	OES OEF	000	029	077		0.9%	100.0% 100.0%	24% 62%	03% 02%	20%	90.2% 69.5%	08%	572% 556%	15%	0.2%	95% 108%	518% 359%	15.2% 17.9%	732% 540%
17			17		- 5	001	0.99	0.76	031	016 012	054		GEN.	100.0%	161% 97%	12%	162% 188%	544% 907%	07%	427% 494%	11.2% 45%	12%	45% 80%	296% 554%	97% 127%	41.6% 72.4%
19			18		5	601	105	005	000	623	100		0.7%	100.0%	28%	02%	221%	948%	08%	542%	16%	02%	59%	552%	15.2%	772%
20			- 50 - 20		5	88	120	0.04	000	627	102		1.3%	100.0%	161%	02% 04%	222%	849% 610%	15%	589% 481%	20%	02%	52% 52%	475% 312%	152%	67.7% 462%
22			2%		1	88	0.16	920	000	667	006		13%	100.0%	63%	06%	465%	37.1%	08%	428%	18%	06%	17.6%	164%	30.2%	264%
23			257		1	600	0.16	920 920	000	006	034		13%	100.0%	59%	13%	528% 336%	270% 706%	17%	428% 462%	18% 42%	00%	202% 11.8%	132%	340% 218%	195%
25			259		1	601	0.12	100	000	005	039		47%	100.0%	60%	08% 07%	438% 527%	719% 365%	33% 14%	418% 446%	50% 47%	08%	140% 182%	397% 155%	248% 324%	562% 250%
27			261		2	000	0.34	ocs	000	015	012		1.7%	100.0%	78%	09%	436%	362%	1.2%	40.7%	55%	06%	11.7%	142%	25.0%	22.7%
25			202		2	000	0.20	200	000	008	014		25% 23%	100.0%	111%	10%	417%	724% 724%	20%	533% 525%	17%	05% 03%	17.6%	372% 382%	27.6% 27.6%	548% 558%
30			254		2	000	0.34	002	000	075	011		12%	100.0%	68%	09%	439%	326%	03%	37.1%	47%	0.6%	12:5%	166%	22.6%	231%
32	м	Patith	25 26		2	000	0.23	002	000	029	014		30% 1.2%	100.0%	67% 73%	13%	374% 577%	61.3% 340%	22% 10%	504% 537%	48%	0.9%	11.7% 27.3%	248% 170%	200% 42.3%	41.7% 240%
33			20		2	601	0.25	025	000	636	017		12% 23%	100.0%	101%	08% 18%	421% 525%	676% 240%	24%	344% 400%	7.7% 100%	08%	114%	304%	25.5% 348%	445% 159%
35			200		- 5	001	0.63	005	000	627	0.30		19%	100.0%	49%	Q5%	427%	461%	13%	545%	32%	05%	188%	215%	29.5%	330%
30			270		5	602	0.46	006	001	623	0.26		28% 27%	100.0%	123%	11%	493% 551%	597% 460%	19%	541% 570%	45%	02%	16.9%	340% 240%	301% 389%	463% 347%
30			272		5	662	0.74	0.12	021	637	0.22		22%	100.0% 100.0%	157%	07%	501%	298%	12%	367% 578%	11.0%	07% 08%	22.2%	115%	343%	192%
40			273 274		5	000	0.49	0.04	031	0.29	0.25		20% 24%	100.0%	80% 85%	12%	437% 588%	488% 509%	14%	491%	53% 57%	12%	17.2% 26.4%	233%	27.6% 40.6%	385%
40			275 276		5	001	0.53	004	021	029	0.29		24% 18%	100.0%	7.7% 11.4%	09%	549% 495%	541% 366%	17%	600% 467%	43% 75%	0.0%	21.1%	320% 165%	367% 344%	436% 246%
43			0	26	2	000	0.40	0.04	000	011	0.29		1.0%	100.0%	11.1%	G8%	282%	725%	0.8%	393%	7.1%	0.8%	10.3%	403%	18.1%	572%
44			1 2	257	2	000	0.47	930	021	015 014	0.26		09% 17%	100.0%	7.7%	13%	323% 303%	566% 617%	05%	37.8%	47% 52%	11%	13.1%	271%	21.3%	411% 412%
46			3	239	2	000	0.38	002	000	012	0.30		1.8% 2.8%	100.0%	40%	11%	325% 372%	789%	13%	418%	29% 13%	0.8%	11.2%	462% 223%	195% 23.9%	633% 369%
46			5	20	4	601	0.61	006	000	621	0.35		15%	100.0%	58%	18%	346%	574%	10%	398%	7.0%	15%	12.8%	293%	22.6%	415%
40			6	262	4	001	0.79	005	000	622	055		1%	100.0%	63%	95%	275%	816% 775%	08% 17%	519% 549%	13%	05% 04%	11.8%	459% 399%	190%	65.9% 596%
53			8	24	4	601	0.83	0.10	001	623	0.39		12%	100.0%	115%	17%	278%	464%	07%	314%	27%	18%	87%	207%	160%	310%
53			10	255 256	4	601	0.75	005	001	623	050		10%	100.0%	23% 43%	15%	31.0% 40.2%	677% 568%	12%	388% 482%	51% 32%	13%	165%	30.2% 28.3%	18.3% 28.1%	450% 413%
54			- 15	267	4	661	0.87	006	001	625	047		14%	100.0%	70%	07%	286%	532%	10%	323%	49%	06%	10-4%	238%	17.5%	346%
55			13	200	10	603	1.97	030	001	630 648	115	-	15%	100.0%	153% 73%	09%	353%	447% 758%	08%	408% 533%	107%	07%	132%	205% 432%	22.9%	315% 612%
57			я	270	10	664	212	0.10	031	G67 G86	154		17%	100.0%	49%	54% 54%	315% 405%	729% 544%	12%	578% 515%	28%	03% 02%	12.8% 17.7%	394% 265%	209% 250%	569% 406%
53		1	26	272	10	003	2.09	0.34	023	0.70	0.91		14%	100.0%	162%	14%	337%	438%	1.1%	412%	11.4%	12%	13.6%	21.1%	22.6%	325%
60		1	17	273 274	10	602	1.00	0.13	022	0.29 0.56	126	\vdash	19%	100.0%	102%	18%	301%	721% 775%	13%	545% 509%	56% 15%	10%	12.7%	402%	205% 237%	556% 610%
62		1	23	275	10	004	201	0.11	031	0.71	1.36		1.8%	100.0%	58%	05%	350%	669%	15%	565%	13%	0.3%	14.2%	347%	24.3%	518%
63		_	20	2%	10	63	224	0.36	031	0.79	1.05	1	14%	100.0%	163%	04%	351%	453%	1.1%	441%	11.9%	0.3%	144%	21.4%	240%	347%

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

- M-patch Low CH

								4	km2 PD(mW(t	tm2)					max ratio ou at 2mm eval	t of all beams aution distance						at of all beams Austion distance			max ratio out at 5mm evalu	t of all beams uation distance
						1							SAN	100.0%	26.5%	18%	610%	100.0%	49%	513%	16.8%	13%	27.0%	647%	40.9%	83.2%
No.	Module	Type	Seam ID,1	Berna ID2	Feed no.							per	ratio	ratio	natio	ntio	ratio	mtio	ratio	ratio	ratio	ratio	ratio	ntio	ratio	ratio
						S4(Right)	SS(Left)	55(Top)	SS(Ecttorn)	ST (Front)	S2(Rear)	Back-off (dB)	(Right 2mm)/(wont- surface 2mm)	(Left 2mm)/juont- surface 2mm)	(Top 2mm)/(worst- surface 2mm)	(Bottom 2mm)/(wont- surface 2mm)	(Fornt 2mm)/(wont- surface 2mm)	(Rear 2mm)/(worst- surface 2mm)	(Right 10mm(/(wont- surface 2mm)	(Left 10mm(/(worst- surface 2mm)	(Top 10mm)/(wont- surface 2mm)	(Sottom 10mm)/(worst- surface 2mm)	(Front 10mm(/(worst- surface 2mm)	(Rear 10mm)/(worst- surface 2mm)	(Front Smm)/(wont- surface 2mm)	(Rear Smm)/(worst- surface 2mm)
1		+	0	1	1	000	0.05	0.00	000	000	004		42%	100.0%	83%	21%	250%	917%	21%	418%	42%	00%	63%	438%	12.5%	667%
2			1 2		1	000	0.20	920	000	011	034		15% 15%	100.0%	57% 106%	12%	579% 471%	22.3% 76.8%	10%	355% 294%	27%	05% 12%	19.8%	365%	345% 247%	152% 565%
4			3		-	000	0.10	act	000	004	006		22%	100.0%	27%	10%	374%	586%	20%	424%	51%	10%	13.1%	253%	23.2%	414%
5			5		1 2	000	0.13	002	000	617	034		0.8% 1.5%	100.0%	39% 52%	08%	559% 468%	299% 320%	15%	378% 413%	24% 35%	08%	21.3% 19.2%	157%	354% 323%	216% 213%
7			ě		2	600	0.26	GES	000	615	012		18%	100.0% 200.0%	97%	12%	593%	463% 642%	12%	252% 278%	62%	08% 12%	17.1%	202%	32.9% 35.2%	322% 469%
9			- 6	-	2	600	0.17	921	000	009	010		17%	100.0%	40%	17%	520%	601%	17%	283%	29%	12%	210%	289%	34%	419%
10			9		2	000	0.12	002	000	016	035		12%	100.0%	46%	09% 11%	500%	256%	02%	389%	28%	09%	17.3%	123%	29.6%	182%
12			n	1	2	001	0.38	002	000	017	013		27%	100.0%	63%	10%	442%	348%	1.6%	393%	45%	GB%	17.5%	131%	285%	215%
13		1	12		5	001	052	006	000	034	0.25		25% 30%	100.0%	108%	15%	461% 630%	531% 495%	21% 25%	429% 395%	75% 58%	12%	16.2% 24.7%	247%	28.2% 39.6%	375% 388%
15		1	Я		5	002	0.46	004	000	025	0.36		47%	100.0%	80%	04%	567%	776%	37%	472%	59%	04%	27.0%	439%	40.9%	61.3%
15		1	25	1	5	002	0.61	004	021	034	0.29		38% 28%	100.0%	77%	12% 22%	559% 405%	47.4% 600%	28%	505% 27.9%	50% 45%	15%	22.1% 14.9%	205% 303%	37.5% 24.6%	31.2% 43.8%
15		1			5	601	0.62	006	031	630	0.22		19%	100.0% 100.0%	97% 87%	10%	479% 499%	357%	18%	385%	65%	10%	13.8%	157%	27.3% 33.9%	252% 446%
20			9	-	3	662	0.35	005	000	626	0.33		54%	100.0%	77%	09%	567%	721%	48%	460% 382%	51%	08%	211%	297% 413%	363%	561%
20			20		5	600	0.39	005	001	014	0.24		185	100.0%	27%	15%	354%	605%	15%	257%	43%	13%	117%	321% 403%	254%	438% 719%
23			20	-	+	600	015	002	000	003	0.19		1.6%	78.5%	11.3%	05%	134%	100.0%	18%	301%	59%	05%	18%	419%	7.5%	704%
24			29		1	000	0.16	920	000	601	0.20		10%	77.3% 73.7%	64%	05% 26%	54%	100.0%	05%	31.0% 22.6%	475	27%	15%	453%	25% 47%	705% 705%
26			260		<u> </u>	000	012	920	001	661	0.21		14%	58.3%	38%	24%	52%	100.0%	0.9%	17.1%	24%	19%	19%	422%	28%	687%
27 28			20		2	001	0.35	004	000	003	0.50		1.4%	69.2% 71.0%	72% 53%	04%	62% 44%	100.0%	12%	258% 264%	52% 12%	02%	19%	502% 469%	16% 27%	758% 716%
29			203		2	000	041	act	031	000	0.54		0.7%	75.8%	09%	17%	26%	100.0%	05%	32.7%	06%	15%	06%	537%	1.7%	780%
30			254		2 2	000	0.35	000	001	011	0.29		1.7% 20%	100.0%	82% 155%	14%	305%	819%	0.8% 1.6%	343%	51%	11%	127%	368% 492%	20.4% 66%	581% 747%
32	м	Patish	200		2	000	0.35	005	000	005	0.59		10%	63.5%	83% 18%	02% 24%	90% 64%	100.0%	03% 10%	27.4%	46%	02% 20%	29%	493% 436%	54% 18%	755% 709%
34			207	-	5	001	0.33	0.31	031	003	125		14%	67.7% 57.8%	18% 247%	24%	64% 87%	100.0%	10%	219%	10%	22%	20%	436%	38% 58%	709% 726%
25			250 270		5	003	0.95	922	000	005	1.42		22% 17%	69.0% 79.8%	106%	01% 04%	55% 48%	100.0%	12%	331% 403%	49% 21%	0.7%	23%	590% 588%	17%	799% 801%
37			271		5	002	0.90	004	031	013	121		1.0%	74.3%	33%	04%	110%	100.0%	1.2%	387%	21%	0.3%	50%	582%	7.4%	796%
30			272 273		5	662	090	025	003	679	1.10		15%	63.7%	157%	20%	173%	100.0%	23%	358% 287%	18% 97%	25%	28%	462% 552%	11.3%	719% 771%
40			224		- 5	662	0.98	054	000	006	122		18%	80.1%	32%	62%	52%	100.0%	1.3%	401%	18%	02%	1.6%	601%	33%	81.6%
4			275		5	662	093	005	031	006	1.18		19%	76.9%	41% 28%	11%	152%	100.0%	14%	403% 364%	27% 17%	17%	1.9%	575%	11%	783% 77.1%
40		1	0	26	2	601	0.26	054	000	028	0.33		22%	79.4%	132%	12%	243% 444%	100.0%	15%	329% 363%	60% 60%	95	108% 152%	469%	168% 262%	738%
45		1	2	255	2	601	0.31	054	000	006	0.38	-	19%	82.1%	115%	11%	160%	100.0%	18%	319%	7.7%	08%	51%	411%	97%	656%
46		1	3	259	2	601	0.50	000	001	009	0.15		22%	8490. 852%	50%	28%	242%	100.0%	14%	333%	15%	29%	71% 142%	490% 434%	117% 216%	738% 701%
45			- 5	251	4	002	0.85	0.05	021	0.25	0.54		2.8%	100.0%	58%	09%	330%	989%	24%	40.7%	7.0%	07%	12.2%	495%	21.3%	742%
40			- 6	20	4	001	066	002	001	022 013	0.69		1.9%	95.8% 93.6%	122%	10%	316% 182%	100.0%	17% 14%	364%	80% 19%	07% 24%	80% 65%	558% 537%	15.9% 11.1%	785% 787%
53		1	8	254	4	000	0.70	0.06	002	0.35	0.45		14%	100.0%	89%	21%	504%	680%	1.1%	37.1%	56%	16%	193%	290%	33.6%	468%
22		1	9	255	4	002	0.76	013	001	026	056		20% 24%	100.0%	175%	07% 05%	336%	863% 100.0%	18%	364% 322%	11.3% 76%	05% 04%	11.7%	410%	195%	615% 780%
54		1	11	257	4	002	0.72	004	023	025	055		27%	100.0%	67%	38%	341%	947% 100.0%	17%	403%	19%	37%	12:0%	448% 450%	21.2% 15.7%	685%
55		1	12	255	20	006	141	0.59	002	055 056	220		32% 28%	57.6% 56.7%	265% 120%	09% 04%	247%	100.0%	23%	212% 245%	16.8%	08%	\$4% \$7%	560%	15.3%	708%
57		1	74	270	10	004	137	612	001	540	202		22%	67.7% 100.0%	59%	05% 12%	197%	100.0% 91.6%	18%	318% 533%	16%	04% 08%	54% 158%	647% 507%	144%	829% 718%
59		1	16	2/1	10	003	131	0.10	036	064	157	-	22%	100.0%	50%	17%	376%	917%	15%	398%	18%	33%	15.3%	443%	217%	67.9%
60		1	17	273	10	007	156	043	002	057	229		32% 19%	67.9% 76.7%	186%	07%	249% 225%	100.0%	24% 17%	242% 345%	12.5%	06%	84%	527%	13.9%	759% 812%
62		1	29	275	10	005	1.26	0.09	022	026	1.02	-	25%	68.9%	47%	09%	145%	100.0%	20%	343%	37%	07%	7.9%	605%	10.4%	796%
63	<u> </u>		20	276	10	003	1.77	0.11	034	051	150		1.7%	100.0%	67%	20%	344%	843%	14%	427%	19%	19%	116%	433%	21.7%	645%

- M-patch Mid CH

								cm2 PD/mW/							it of all beams uation distance						t of all beams lustion distance			maxinatio out at 5mm evalu	t of all beams union distance
					1							45%	100.0%	22.4%	11%	GLEX	100.0%	12%	51.8%	14.7%	2.8%	25.9%	61.4%	41.1%	82.5%
No.	Module	ge Beam ID	Sema D2	Feed no.							per Beam	ratio	ratio	natio	ntio	ratio	mtio	ratio	ntio	ratio	ratio	ratio	ratio	ratio	atio
					S4(Right)	\$3(Left)	55(Top)	SS/Sottom(ST (Front)	S2(Rear)	Back-off	(Right 2mml/(wonst- surface 2mm)	(Left 2mm)/juont- surface 2mm)	(Top 2mm)/(worst- surface 2mm)	(Sottom 2mm)/(wont- surface 2mm)	(Fornt 2mm)/(wont- surface 2mm)	(Rear 2mm)/(worst- surface 2mm)	(Right 10mm)/(wont- surface 2mm)	(Left 10mm)/(worst- surface 2mm)	(Top 10mm)/(wont- surface 2mm)	(Sottom 10mm)/(worst- surface 2mm)	(Front 10mm(/(worst- surface 2mm)	(Rear 10mm)/(worst- surface 2mm)	(Front Smm)/(wont- surface 2mm)	(Rear Smm)/Jworst- surface 2mm)
-			_	,	000	0.04	0.00	000	001	0.04	(40)	42%	932%	62%	23%	273%	100.0%	23%	455%	45%	23%	11.4%	455%	159%	705%
2		1 2		1	000	024	act	000	015	005		08% 24%	100.0%	38% 79%	98%	61.9% 38.9%	195%	08% 24%	403% 325%	25% 48%	04%	20.8% 11.1%	89%	386% 208%	140%
4		3	_	-	000	0.14	act	000	006	000		22%	300.0%	59%	07%	41.2%	507%	15%	478%	17%	0.7%	13.2%	262% 228%	250%	360%
5		4		1 2	000	0.09	act act	000	005 018	025		1.7% 30%	100.0% 100.0%	53% 56%	11%	511% 501%	532% 361%	17%	319% 417%	12% 19%	11%	18.1% 18.8%	277% 174%	31.9% 32.2%	394% 266%
7		6		2	601	0.26	005	000	616	012		19%	100.0%	111%	11%	599%	450%	15%	275%	69%	08%	168%	225%	332%	32.8%
9		7 6		2	600	0.21	001	000	014	010		19%	100.0%	425	14%	640%	498%	14%	359% 356%	29%	12%	258	230%	43.1% 42.1%	359%
10		9		2	600	0.34	ggt	000	617	006		12%	100.0%	38%	09%	513%	233%	09%	381%	24%	08%	150%	11.2%	295%	168%
12		10	_	2	601	0.26	000	000	613	017		19%	100.0%	102%	G8% G8%	400%	663% 258%	13%	459% 422%	27%	04%	14.9%	31.4% 106%	288% 301%	490% 167%
13		2		5	602	0.52	006	001	625	0.12		29%	100.0%	116%	12%	492% 634%	61.4%	25% 12%	391%	67%	GB%	15.1% 25.9%	308%	269%	455% 434%
15		13	-	5	002	0.54	000	000	035	0.31		38% 30%	100.0%	11.0%	05% 07%	634% 563%	562% 744%	32% 28%	417% 487%	52%	05%	25.9%	305% 403%	409% 384%	434% 576%
16		15		5	003	0.72	002	021	042 025	0.36		19%	100.0%	70% 39%	10%	581% 456%	501% 424%	31% 13%	493% 375%	49% 19%	12%	24.1% 16.2%	242% 172%	38.7% 28.2%	365% 294%
15		17	_	5	002	0.66	006	031	031	0.25		2.7%	100.0%	94%	08%	47.3%	385%	23%	363%	68%	06%	15.9%	190%	264%	284%
19		15		5	002	054	006	000	029	0.35		13% 10%	100.0%	101% 53%	95%	535% 559%	695% 508%	32% 23%	483% 453%	76%	05%	20.3% 21.2%	363% 271%	34.3% 36.4%	535% 383%
20		20	_	5	001	0.62	002	031	027	0.25		1.3%	100.0%	19%	08%	432%	452%	10%	364%	21%	08%	14.3%	190%	26.1%	309%
22		256		1	600	014	005	000	663	020		20%	71.4%	151%	15%	156%	100.0%	15%	251% 277%	85% 49%	15%	75%	467% 442%	111%	719% 718%
24		238	+	-	000	016	001	000	662	021		10%	76.8%	68%	10%	72%	100.0%	05%	285%	435	10%	245	425%	19%	71.0%
Z Z		259			600	014	002	001	660	0.19		12%	74.1%	72%	19%	475	100.0%	10%	249%	23%	28%	16%	492%	28%	746% 682%
27		261	_	2	000	031	004	000	662	0.47		19%	65.6%	54%	00%	435	100.0%	15%	252%	58%	04%	11%	450%	24%	720%
25		20		2	601	040	900	000	662	0.54		13%	75.0% 74.9%	14%	62%	20%	100.0%	09%	28.4% 32.6%	17%	62%	69%	427% 522%	17%	705% 77.0%
30		254	_	2	001	0.12	002	001	000	0.33		15%	96.7%	57%	27%	240%	100.0%	09%	259%	10%	27%	114%	431%	168%	692%
32	м .	265 heath 256		2	001	035	005	000	004	0.58		17%	62.7%	116%	62% 62%	75% 63%	100.0%	18%	278%	75% 42%	02%	2.6%	499%	45%	744%
33		207		2	001	0.35	act	021	003	054		1.9%	70.6%	17%	20%	52%	100.0%	09%	25.0%	11%	17%	15%	40.1%	37%	69.3%
34		200	_	5	003	100	0.29	000	008	1.33		25% 1.7%	58.4% 68.9%	220% 124%	05% 03%	50% 40%	100.0%	19%	249% 340%	13.8% 5.2%	0.2%	20%	518% 586%	3.2% 2.8%	742%
35		270		5	003	0.93	006	000	005	120		22%	78.0%	48%	0.3%	32%	100.0%	16%	401%	28%	0.3%	14%	563%	24%	788%
37		271	_	5	002 002	0.97 0.95	005	000	012 016	1.33		1.0%	73.0% 77.4%	25%	25%	128%	100.0%	12%	37.8%	15%	02% 24%	40% 59%	554% 473%	59%	77.7% 73.4%
33		273 274		- 5	004	096	027	000	009	151		24% 22%	63.8% 77.7%	17.9% 15%	07% 02%	50% 30%	100.0% 100.0%	19% 17%	305% 108%	95% 20%	01% 02%	23%	574% 581%	16%	78.7% 80.4%
40		275	-	5	662	100	005	000	667	121		19%	82.6%	44%	07%	60%	100.0%	15%	428%	28%	08%	21%	559%	17%	77.8%
40		276		- 5	662	0.99	004	032	614	1.41		13%	70.3% 84.2%	26%	19%	98% 174%	100.0%	10%	129% 166%	17%	12%	49%	520% 464%	7.1%	76.3% 72.2%
44		1	257	2	601	0.46	004	001	623	0.12		17%	100.0%	E7%	11%	508%	62.3%	09%	421%	52%	09%	17.1%	305%	315%	466%
-6		2	28	2	001	0.35	004	000	606	0.36		20%	98.3% 100.0%	107%	11%	228%	100.0%	17%	394% 41.9%	7.3%	08% 19%	65%	423%	144%	701% 725%
47		4	250	2	601	022	002	001	009	0.33		1.8%	66.8%	66%	15%	263%	100.0%	15%	22.7%	36%	12%	54%	378%	16.3%	665%
45		5	251 252	4	002	081 085	0.00	021	025 079	0.63		25% 18%	95.0%	9.7% 11.9%	08% 07%	337% 280%	100.0%	23%	42.3% 37.0%	62% 97%	06%	11.9% 78%	492% 514%	21.2% 15.1%	748% 751%
30		,	A3	+	001	UDJ	ULD	002	U/4	0.71	-	23%	97.3%	41%	40%	204%	100.0%	10%	361%	47%	23%	97%	330%	164%	77.0%
23		8	254	4	000	0.68	0.05	022	0.29	055		19%	100.0%	66% 151%	25%	564% 332%	50.3% 59.5%	1.9%	37.9%	19%	20%	23.1%	320% 426%	38.3% 17.7%	519% 647%
53		10	255	4	003	0.60	0.11	000	017	0.86		10%	70.5%	123%	05%	201%	100.0%	2.9%	129%	61%	04%	64%	559%	12.5%	785%
54		11	257	4 10	002	0.93	004 053	002	632 652	237		18%	100.0% 55.2%	40% 224%	20% 07%	339% 220%	81.0% 100.0%	14%	405% 221%	27% 147%	12%	11.2%	365% 467%	208% 112%	57.2% 728%
56		13	209	10	667	142	0.35	001	652	253	1	27%	56.7%	118%	04%	205%	100.0%	21%	27.6%	57%	0.9%	81%	596%	111%	81.2%
57		Я	270	10	005	141	0.10	001	640 680	1.65		28% 28%	90.5%	48% 54%	05%	199%	100.0%	21%	351% 538%	10%	04%	94% 194%	612% 533%	142% 289%	808% 767%
59		16	272	10	664	202	009	006	629	190	1	21%	100.0%	44%	32%	392%	940%	14%	438%	31%	28%	160%	459%	250%	700%
6		10	273	10	006	1.72	0.46	001	658 029	249		14% 25%	69.3% 72.2%	183%	04%	232%	100.0%	25% 20%	116%	104%	0.9%	86% 81%	559% 614%	140%	77.8% 82.5%
62		19	275	10	004	158	0.09	002	041	1.78		25%	88.7%	48%	11%	230%	100.0%	20%	441%	29%	09%	10.7%	550%	16.1%	77.3%
G3		20	276	10	003	2.03	0.10	023	0.75	1.57		1.6%	100.0%	52%	15%	365%	921%	1.1%	469%	13%	15%	15.1%	480%	23.9%	71.0%

- M-patch High CH

									km2 PD/mW0	ires2)						t of all beams aution distance						t of all beams lustion distance			maxiratio out at 5mm evalu	
													40%	100.0%	21.6%	12%	70.0%	100.0%	26%	55.1%	13.3%	29%	29.0%	61.5%	46.9%	82.2%
No. A	Applie Tr	ge Seam	DJ Berna	D2 Fee	ed no.							per Seam	ratio	ratio	natio	ntio	ntio	mtio	ratio	natio	ratio	ratio	ratio	ntio	ratio	asio
			-		2	A(Right)	53(Left)	55(Top)	SS(Ecttorn)	ST (Front)	S2(Rear)	Back-off	(Right 2mm(/)worst- surface 2mm)	(Left 2mm)/(wont- surface 2mm)	(Top 2mmi/(worst- surface 2mm)	(Bottom 2mm)/(wont- surface 2mm)	(Fornt 2mm)/(wont- surface 2mm)	(Rear 2mm)/(worst- surface 2mm)	(Right 10mm)/(wont- surface 2mm)	(Left 10mm)/(worst- surface 2mm)	(Top 10mm)/(wont- surface 2mm)	(Sottom 10mm)/(worst- surface 2mm)	(Front 10mm)/(wont- surface 2mm)	(Rear 10mm)/jworst- surface 2mm)	(Front Smm)/(wont- surface 2mm)	(Rear Smm)/(worst- surface 2mm)
-	_	٠,	_	_	,	000	005	000	000	002	025	(40)	sunsce 2mm) 40%	100.0%	837809 27971 40%	22%	937809 27979 460%	982%	92/15/20 (20%) 20%	93/14/09 2/11/11 48/0%	20%	20%	16/2%	80/1809 2/1970 460%	92705 282%	720%
2		-	_	-	1	000	0.26	act	000	035	034		1.7%	100.0%	27%	04%	615%	164%	0.8%	435%	15%	04%	22.1%	76%	39.3%	118%
3					1	600	0.17	GEE	000	607	037		1.7%	100.0%	63% 34%	12%	423%	39.7%	17%	305% 448%	40% 25%	05%	12.1%	213% 172%	21.0% 27.6%	305% 276%
- 3		-	-	+	•	600	0.06	001	000	503	006		17%	100.0%	109%	18%	531%	859%	18%	266%	63%	18%	154%	391%	28.1%	609%
6					2	601	0.35	002	000	018	011		23%	100.0% 100.0%	118%	12%	517%	324% 500%	14%	41.2% 256%	45% 75%	08%	19.3%	153%	32.7% 29.9%	219% 37.4%
		-		-	2	uu.	024	ULI	000	U17	029	-	18%	100.0%	40%	uan	700%	330%	12%	410%	43%	uan-	224%	169%	463%	26376
9					2	000	0.25	act	000	017			18%	100.0% 100.0%	45% 17%	12%	687% 499%	341% 217%	12%	431%	24%	08%	28.0%	167% 93%	45.9% 29.2%	260% 148%
11		-			2	000	0.39	002	000	027	016		28%	100.0%	62%	05%	535%	41.1%	21%	37.0% 46.5%	47%	0.2%	18.9%	202%	334%	295%
12		-			2	000	0.62	002	000	032	013		1.9%	100.0%	12%	05%	520%	201%	1.1%	441%	1.6%	0.9%	19.2%	29%	337%	138%
13		-		-	5	002	0.54	000	000	027	0.12	-	14% 17%	100.0% 100.0%	103%	07% 08%	504%	593%	26% 25%	394% 423%	78%	05%	14.0% 26.0%	31.2% 300%	27.8% 40.6%	453% 423%
15		- 3	_		5	000	0.65	ocs	000	042	0.34		22%	100.0%	48%	05%	647%	525%	1.7%	551%	18%	0.3%	290%	287%	45.2%	404%
15		- 1			5	603	0.83	005	001	653 641	0.36	⊢ ¯	14%	100.0%	20%	08% 08%	637% 460%	437% 323%	25%	513% 445%	12%	05%	27.6% 16.7%	219% 129%	43.3% 30.5%	318% 221%
16					5	662	0.71	006	031	634	0.29		25%	100.0%	89%	07%	464%	403%	21%	356%	62%	06%	18.2%	212%	298%	306%
19					5	662	0.60	006	000	036	0.35		18% 17%	100.0%	93% 15%	05%	598% 645%	629% 391%	23%	507% 511%	7.3%	03% 05%	240% 27.2%	336% 217%	389% 440%	450% 308%
20		-	-	-	3	601	0.88	002	031	642	0.29		13%	100.0%	19%	07%	475%	335%	0.9%	445%	11%	05%	18.1%	133%	30.1%	222%
22		2				600	014	005	000	662	0.20		25%	67.5% 61.0%	153%	20%	90%	100.0%	20%	256%	565	22%	445	443%	185	754% 714%
24		2		+	•	600	017	001	000	662	0.22		09%	78.1%	65%	09%	79%	100.0%	03%	268%	425	09%	28%	437%	47%	716%
25		2			1	000	014	act	001	001	0.20		10%	73.1% 73.9%	27%	32% 18%	57% 46%	100.0%	10%	249% 260%	51% 41%	25% 14%	15%	503% 404%	25% 28%	746%
27		2		+	2	000	0.30	005	000	002			22%	65.6%	113%	09%	35%	100.0%	18%	238%	79%	07%	175	402%	18%	689%
25		2			2	000	0.46		000	000			12%	77.1%	59%	02%	24%	100.0%	0.5%	295%	19%	02%	1.0%	456%	15%	732%
30		2			2	000	0.36	act acs	001	002	0.50	-	12% 10%	72.5% 82.3%	18%	18%	38% 135%	100.0%	1.0%	32.3% 25.0%	16%	14%	10%	501% 409%	20% 97%	75.0% 68.5%
33		2			2	000	0.35	0.06	000	003	0.58		1.8%	60.3%	118%	0.9%	57%	100.0%	14%	27.6%	7.6%	0.2%	19%	463%	13%	732%
32	M Pi	nth 2			2	601	0.37	005	000	003	0.63		1.7%	58.2% 76.4%	16%	19%	405	100.0%	10%	254% 278%	45%	0.9% 16%	13%	466% 443%	27%	734% 722%
34		- 2		-	5	003	0.79	0.30	031	006	1.41		19%	56.2%	216%	05%	43%	100.0%	14%	248%	13.3%	64%	21%	505%	10%	746%
35		2			5	003	100	017	031	006	1.40		19%	80.5%	124%	05% 02%	46%	100.0%	18%	338% 406%	56% 12%	0.4%	17%	573% 579%	27%	759% 755%
37		- 2	1	-	3	662	106	005	000	008	1.46		14%	73.0%	23%	02%	56%	100.0%	11%	37.4%	14%	01%	26%	575%	19%	783%
35		- 2	2		5	003	104	005	034	014	1.40		18%	72.7%	22%	25%	100%	100.0%	13%	258%	13%	21%	43%	473%	67%	727%
40		- 2	-	+	5	003	100	025	000	005	127		22%	79.5%	42%	02%	425	100.0%	18%	402%	25%	02%	14%	590%	28%	805%
40		2	5		5	662	1.10	005	031	667	131		1.5%	83.7% 68.2%	34%	05%	53%	100.0%	1.3%	416%	20%	04%	21%	598%	15% 52%	804% 766%
40		- 2			2	601	028	004	031	006	0.13	<u> </u>	15% 27%	68.2% 86.8%	107%	07% 21%	187%	100.0%	10%	31.6%	17%	12%	14% 52%	525% 445%	52% 104%	766% 715%
44			2		2	000	0.45	004	001	623			2%	100.0%	62% 162%	13%	519% 291%	615%	07%	445% 380%	495	13%	17.6%	298% 433%	33.0% 18.7%	4595 7035
46		-			2	001	0.17	004	000	011	0.37	-	27%	100.0%	102%	11%	291% 302%	100.0% 71.3%	18%	380% 402%	18%	18%	11.5%	433% 348%	187%	703% 512%
47		-			2	000	0.25	ocs	031	007			1.9%	80.9%	88%	18%	223%	100.0%	1.3%	268%	54%	13%	64%	382%	124%	656%
45		-	2		4	002	0.72	0.05	001	026	0.73	-	27%	97.4% 89.9%	113%	54% 05%	35.3% 220%	100.0%	18%	426% 346%	62% 94%	12%	12.8%	458% 503%	22.2% 11.4%	71.8% 740%
50		-	- 2	3	4	000	0.64	ocs	002	0.22	0.00	-	19%	91.9%	43%	27%	313%	100.0%	1.6%	359%	24%	23%	114%	514%	21.2%	764%
22			25		4	001	0.66	005	022	036			20% 18%	100.0% 100.0%	72%	13%	549% 325%	895% 882%	14%	386% 435%	41% 78%	29%	22.2%	365% 401%	37.7% 186%	614% 625%
53		-	20	6	4	662	0.68	0.10	001	625	0.91	!	27%	75.4%	112%	08%	260%	100.0%	22%	336%	62%	64%	91%	531%	17.0%	77.1%
54			Σ	-	4	602	1.00	005	002	039	081		14%	100.0% 54.5%	25%	18%	362%	758% 100.0%	22%	380% 219%	16%	14%	12.6%	340%	22.9% 10.3%	547% 731%
56		\vdash	2	9	10	607	156	034	002	657	250	-	27%	62.6%	118%	06%	228%	100.0%	20%	306%	69%	05%	92%	604%	147%	816%
57		- 1	27	0	10	005	130	0.10	031	657	2.04		24%	83.3%	47%	54%	278%	100.0%	20%	416%	29%	0.9%	12.5%	593%	198%	79.7%
53		1	27		10	005	1.87	0.10	001	085	2.03	<u> </u>	24%	91.9% 100.0%	49%	07% 28%	41.7% 37.3%	100.0% 985%	20%	482% 458%	28%	05% 24%	19.1% 16.1%	568% 492%	27.9% 25.2%	781% 742%
60			27.	3	10	CCS	1.75	046	031	058	2.46		17%	71.7%	186%	06%	236%	100.0%	23%	296%	10.3%	04%	94%	553%	14.8%	781%
8		-			10	005	182	013	031	054	2.18	1	24%	74.4% 97.6%	19%	03%	247% 309%	100.0%	20%	366% 499%	15% 24%	02%	9.3% 14.7%	615% 536%	14.9% 21.7%	822% 77.4%
63		2			10		2.11		023	085		-	18%	100.0%	15%	11%	369%	940%	13%	494%	22%	09%	158%	514%	242%	744%
		_	_					•		•	•	•														