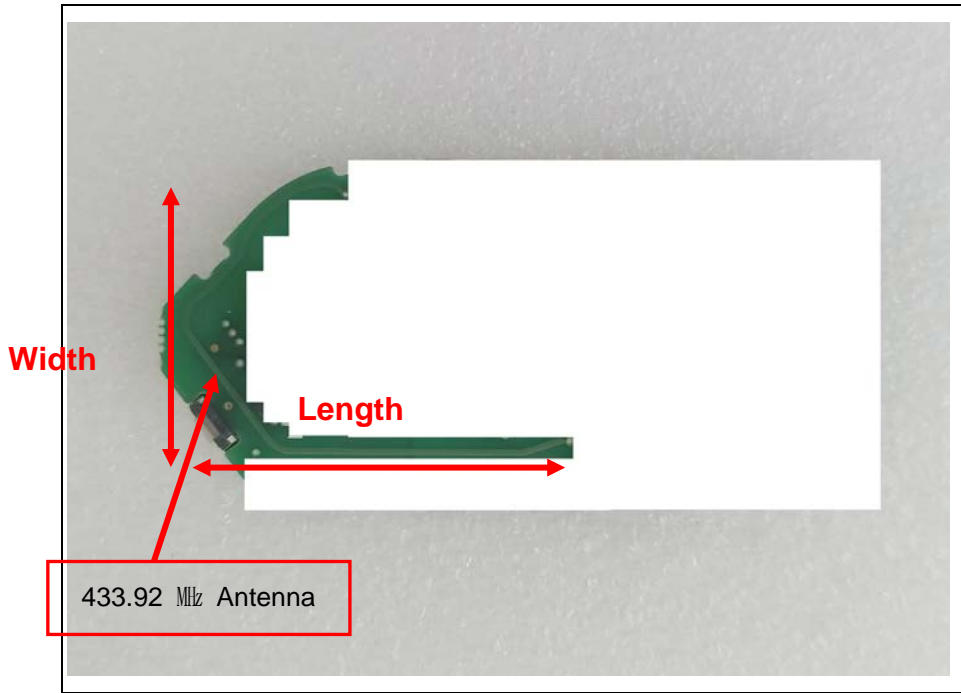
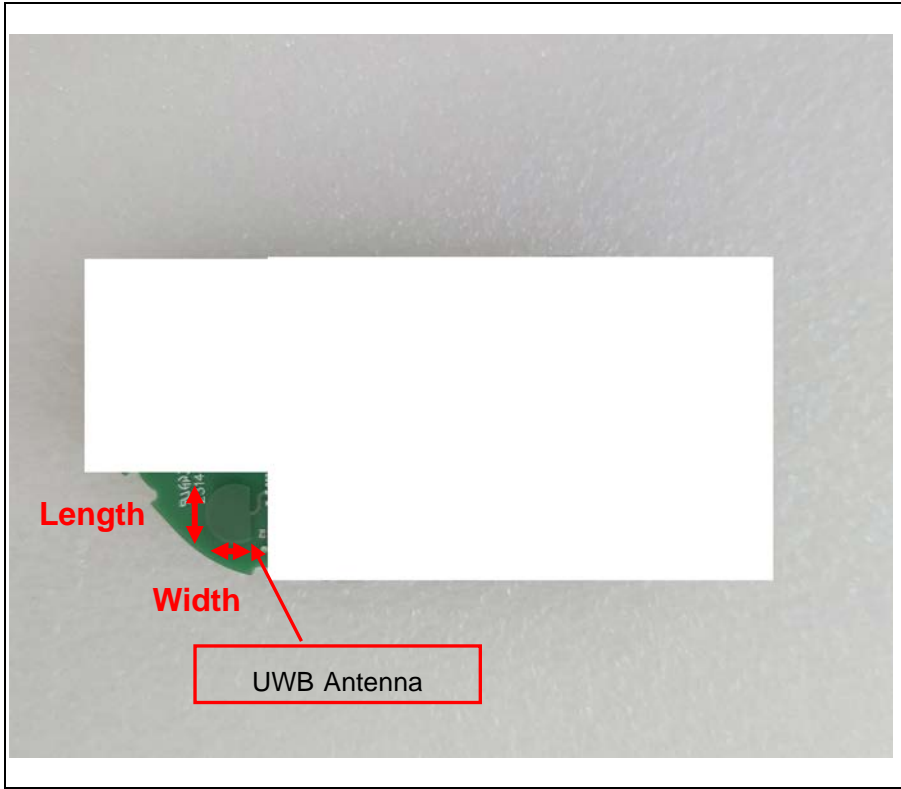


## Antenna Information

Item	Contents	
Frequency	433.92 MHz	7 987.2 MHz
Antenna Type	PCB Pattern Antenna	
Antenna peak gain	-11.61 dBi	-6.26 dBi
Manufacturer / Model name	Hyundai Mobis Co., Ltd. / -	
Address of manufacturer	203, Teheran-ro, Gangnam-gu, Seoul, South Korea, 135-977	
Test Laboratory	RadiAnt Co., Ltd	EMTI
Antenna Length	32 mm	5 mm
Antenna Width	22 mm	4 mm



Model name: FOB-4FA1U44



Model name: FOB-4FA1U44

# Test Result

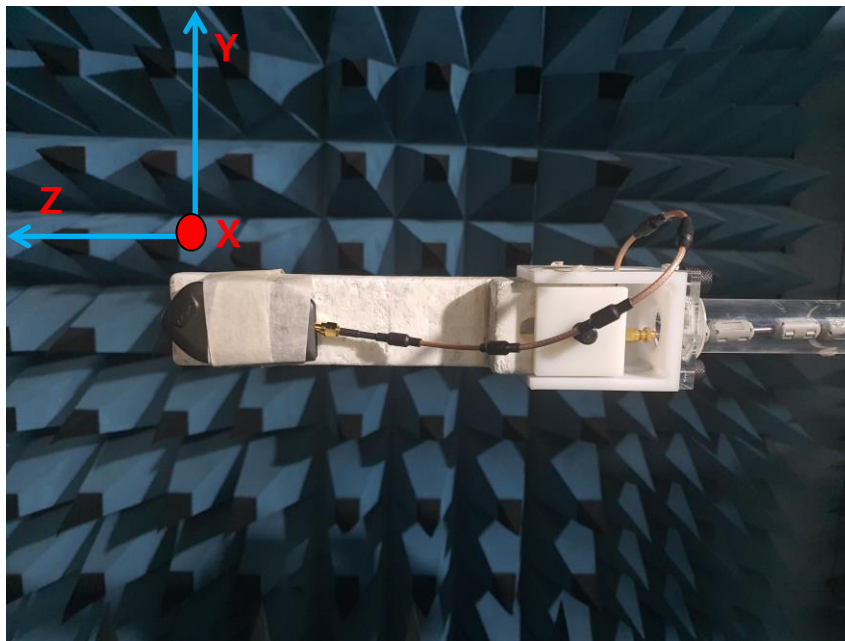
CUSTOMER : 현대모비스

## 스마트키Fob 433.92MHz Radiation Pattern data

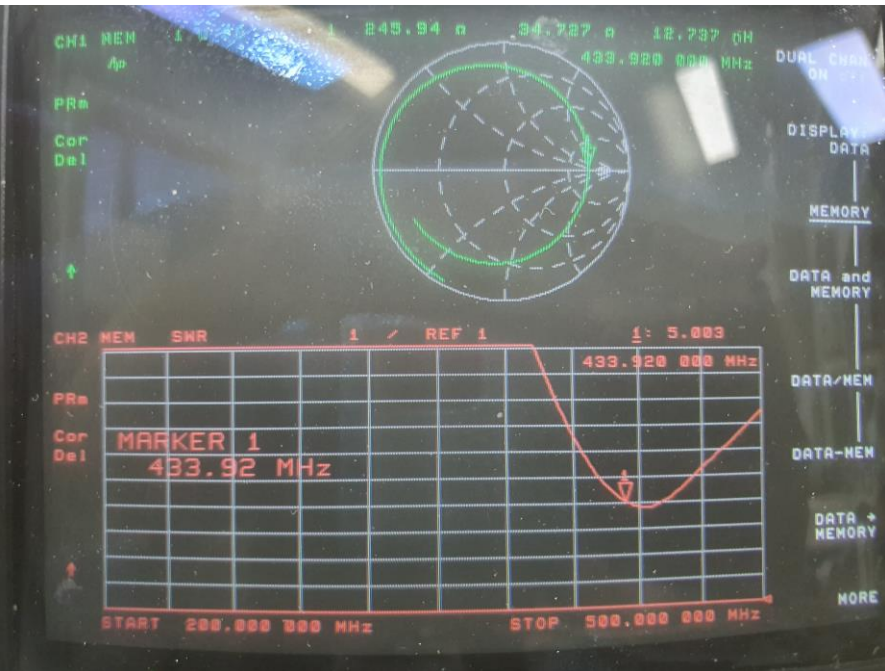
1. SET 구조 및 챔버 방향(Radiation 방향)
2. VSWR 및 2D-Radiation

2022.05.30  
RadiAnt

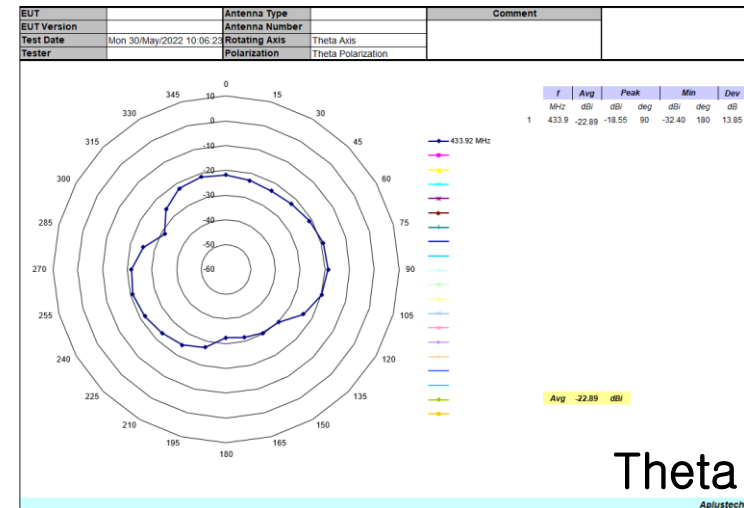
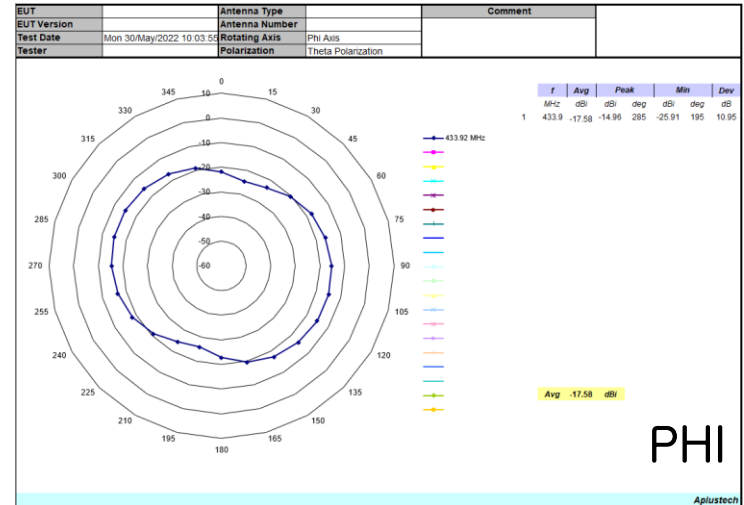
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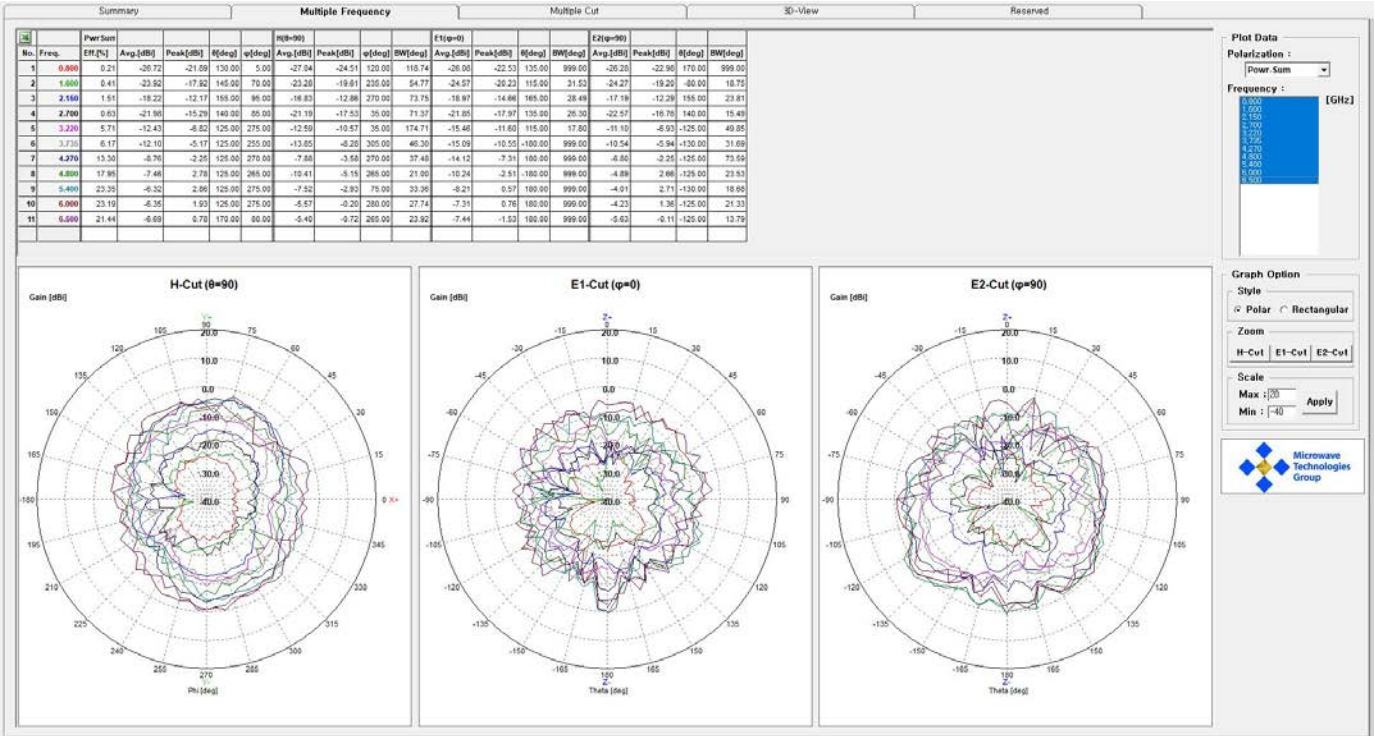
## 2. VSWR 및 2D-Radiation



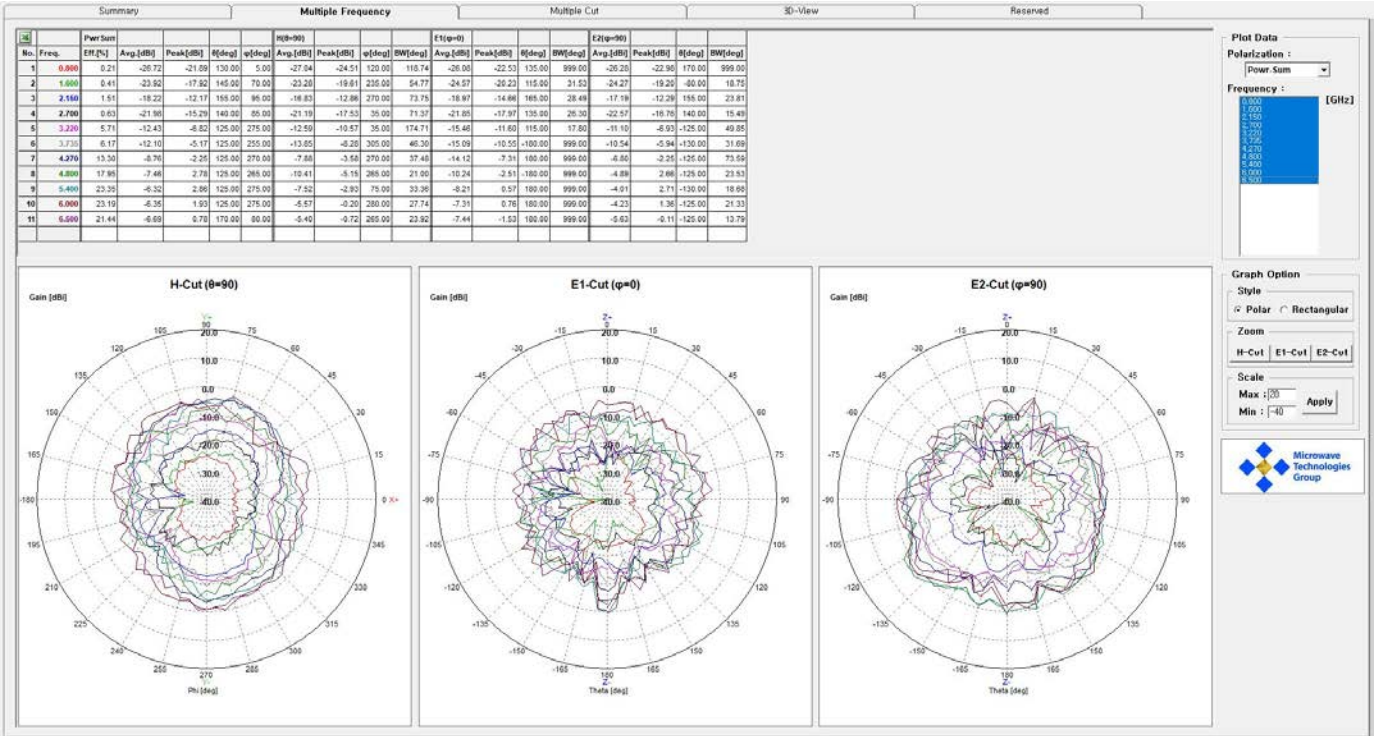
	<b>1</b>
<b>Frequency [MHz]</b>	<b>433.92</b>
<b>Avg.Gain [dBi]</b>	<b>-16.45</b>
<b>Efficiency [%]</b>	<b>2.3</b>
<b>Peak Gain [dBi]</b>	<b>-11.61</b>



No.	Freq.[GHz]	Eff.[%]	Avg.[dBi]	Peak[dBi]
1	0.8	0.21	-26.72	-21.89
2	1.6	0.41	-23.92	-17.92
3	2.15	1.51	-18.22	-12.17
4	2.7	0.63	-21.98	-15.29

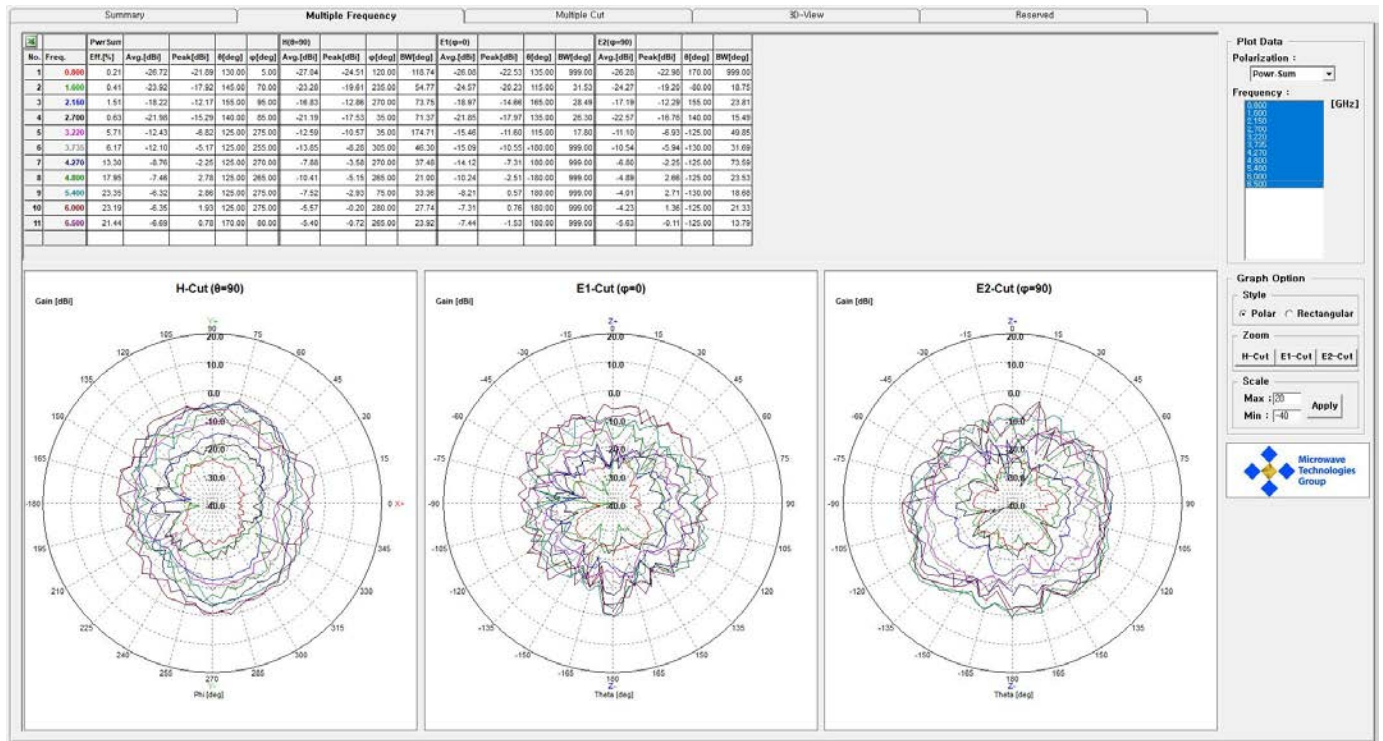


No.	Freq.[GHz]	Eff.[%]	Avg.[dBi]	Peak[dBi]
5	3.22	5.71	-12.43	-6.82
6	3.735	6.17	-12.10	-5.17
7	4.27	13.30	-8.76	-2.25
8	4.8	17.95	-7.46	2.78



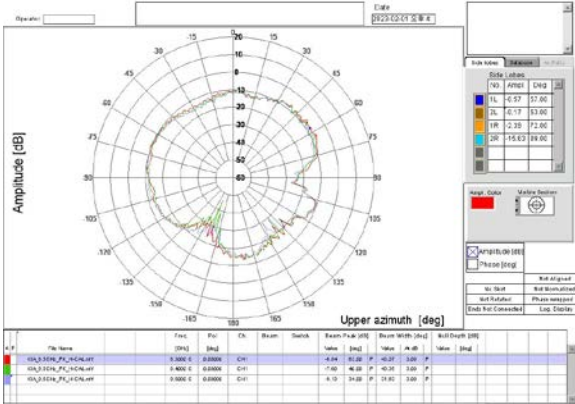
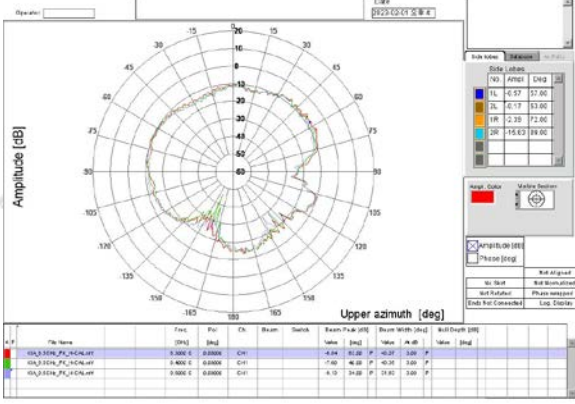
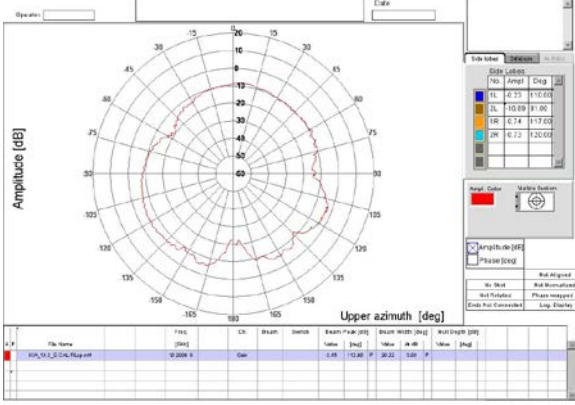


No.	Freq.[GHz]	Eff.[%]	Avg.[dBi]	Peak[dBi]
9	5.4	23.35	-6.32	2.86
10	6.0	23.19	-6.35	1.93
11	6.5	21.44	-6.69	0.78





No.	Freq.[GHz]	Peak[dBi]																																						
12	8.1	-6.26		<p>Amplitude [dB]</p> <p>Upper azimuth [deg]</p> <table border="1"> <thead> <tr> <th>File Name</th> <th>Freq</th> <th>Pwr</th> <th>Ch</th> <th>Beam</th> <th>Switch</th> <th>Beam Peak [dB]</th> <th>Beam Width [2σ]</th> <th>Null Depth [dB]</th> </tr> </thead> <tbody> <tr> <td>HA_8.1GHz_H_Cal_1st</td> <td>8.1000</td> <td>0</td> <td>CH1</td> <td></td> <td></td> <td>-6.26</td> <td>127.00</td> <td>36.44</td> </tr> <tr> <td>HA_8.1GHz_H_Cal_1st</td> <td>8.1000</td> <td>0</td> <td>CH1</td> <td></td> <td></td> <td>-6.10</td> <td>117.00</td> <td>40.80</td> </tr> </tbody> </table>	File Name	Freq	Pwr	Ch	Beam	Switch	Beam Peak [dB]	Beam Width [2σ]	Null Depth [dB]	HA_8.1GHz_H_Cal_1st	8.1000	0	CH1			-6.26	127.00	36.44	HA_8.1GHz_H_Cal_1st	8.1000	0	CH1			-6.10	117.00	40.80									
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17	10.2	-2.55	 <table border="1" data-bbox="1319 1273 1890 1345"> <thead> <tr> <th>File Name</th> <th>Freq [GHz]</th> <th>Chan [MHz]</th> <th>Beam</th> <th>Switch</th> <th>Beam Peak [dBi]</th> <th>Beam Width [deg]</th> <th>Beam Depth [dB]</th> </tr> </thead> <tbody> <tr> <td>01A_1012_FC1CH1.rpt</td> <td>10.200 E</td> <td>0.0000</td> <td>CH1</td> <td></td> <td>-2.55</td> <td>48.00</td> <td>-10.30</td> </tr> </tbody> </table>	File Name	Freq [GHz]	Chan [MHz]	Beam	Switch	Beam Peak [dBi]	Beam Width [deg]	Beam Depth [dB]	01A_1012_FC1CH1.rpt	10.200 E	0.0000	CH1		-2.55	48.00	-10.30																
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