



深圳市雨盛通讯电子有限公司

Shenzhen Yu Sheng Communications Electronics co., LTD

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# 承认书 APPROVAL

版本: A1

客 户  
CUSTOMER:

品 名 规 格  
DESCRIPTION: 2.4G built-in PCB antenna 120mm

料 号  
PART NO.: YS030-0101

客 户 料 号  
CUS PART NO.:

日 期  
D A T E: 2022-8-6

呈样签章:

工 程 ENGINEERING DEPARTMENT	品 保 Q C DEPARTMENT	业 务 SALES DEPARTMENT
田宏亮	田青	聂玉龙

客户承认签章 :

工 程 ENGINEERING DEPARTMENT	品 保 Q C DEPARTMENT	采 购 PURCHASING DEPARTMENT

※Customer confirmation sample attached column:



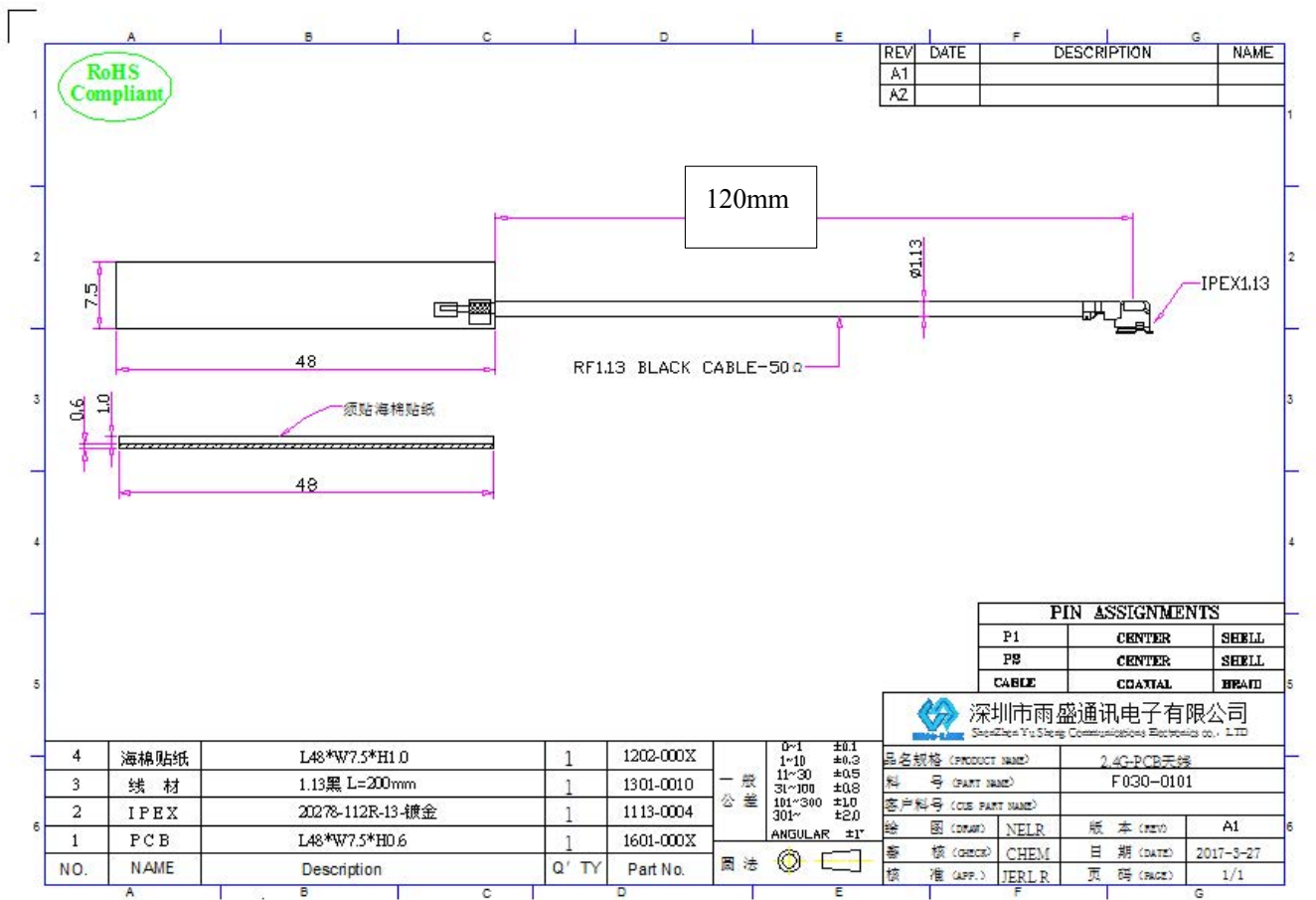
## Technical parameters of electrical apparatus

电性能指标		Electrical Specifications	
频率范围	2400-2500MHZ	Frequency Range	2400-2500MHZ
电压驻波比	≤2.0	VSWR	≤2.0
增益	2DBI	GAIN	2DBI
输入阻抗	50 Ω	Input Impedance	50 Ω
机械指标		Mechanical Specifications	
天线颜色	黑色	Antenna Color	BLACK
接口形式	IPEX	Input connector	IPEX
工作温度	-40°C ~+85°C	Working Temperature	-40°C ~+85°C
工作湿度	20~80%	Working Humidity	20~80%

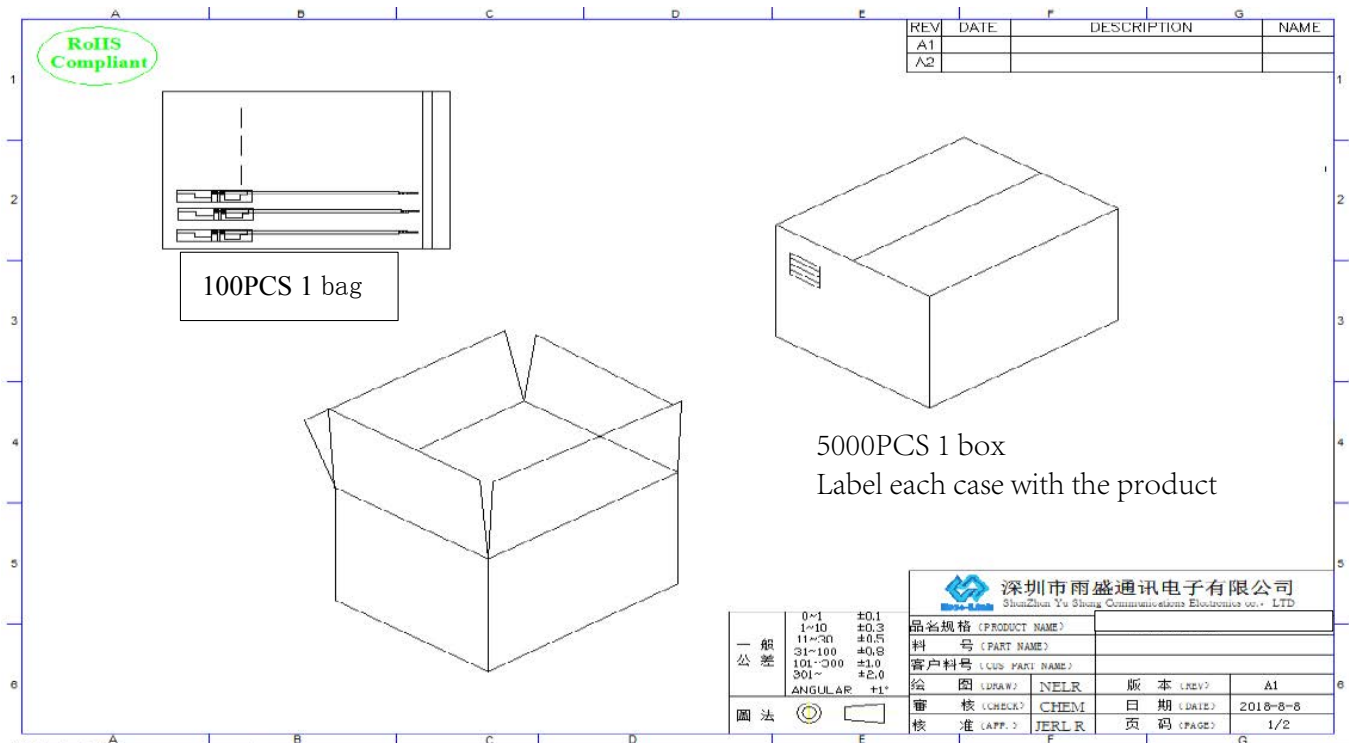
Product picture:



Specification drawing:



Package drawing:

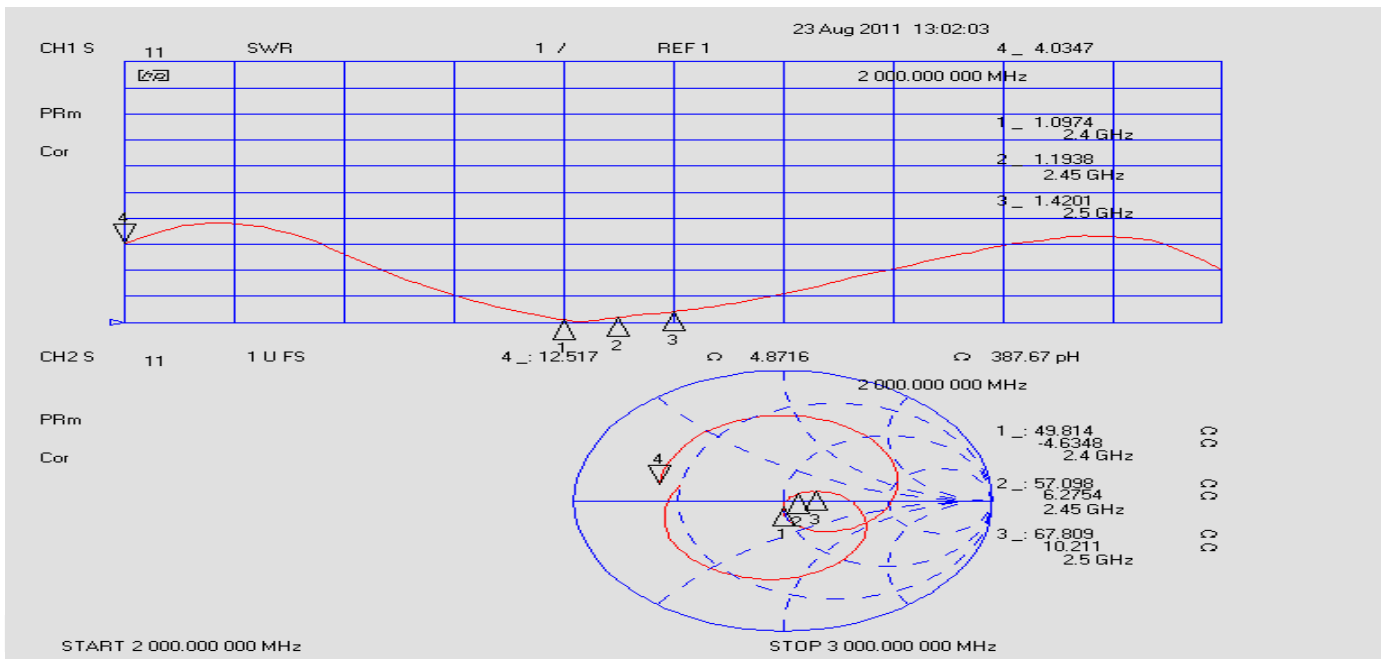




**Environmental performance test:**

project	Test conditions	specification
Storage environment	Test the temperature, humidity, and barometric pressure without specifying as follows:1. The temperature is -30° C~+80° C2.The relative humidity is 45%-85%3.The air pressure is 86kpa-106kpa	Electrical and mechanical properties are normal
High and low temperature test	5 cycles between 70° C and 40° C, followed by 1-2 hours under normal conditions, to check the appearance quality.	Dimensions shall meet the specifications and shall meet the requirements Mechanical and electrical properties
Resistance to constant damp heat test	The relative humidity is 95 ± 3%, the test temperature: 40 ° C, after lasting 2 hours, the electrical properties of the sample are measured within 5 minutes after the sample is taken out, and the sample is under normal conditions for 1-2 hours to check the appearance quality	The dimensions should meet the requirements and should meet the requirements of the mechanical and electrical properties
Vibration test	THE FREQUENCY RANGE IS 10-55HZ, THE DISPLACEMENT AMPLITUDE IS 0.35MM, THE ACCELERATION AMPLITUDE IS 50.0M/S, AND THE NUMBER OF SWEEP CYCLES IS 30 TIMES	Electrical and mechanical properties are normal
Drop test	1M altitude in the direction of the axis perpendicular to each other 3 times	Electrical and mechanical properties are normal

**Sample test:**





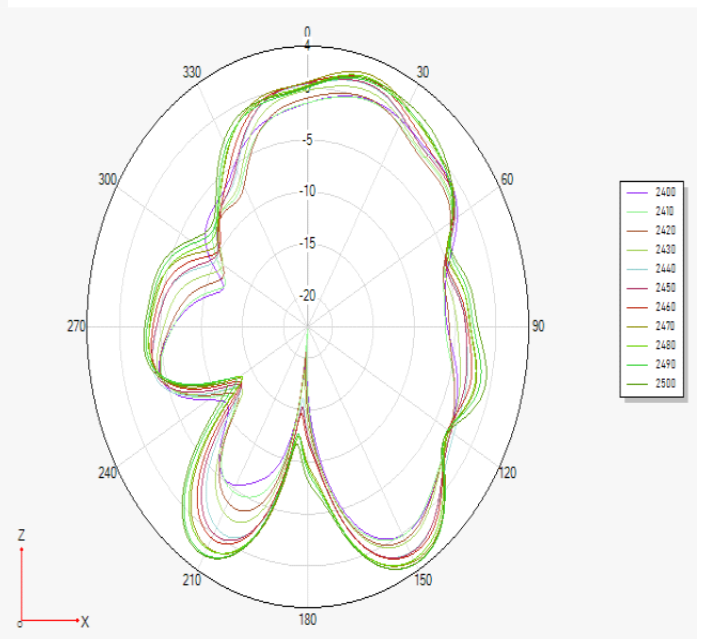
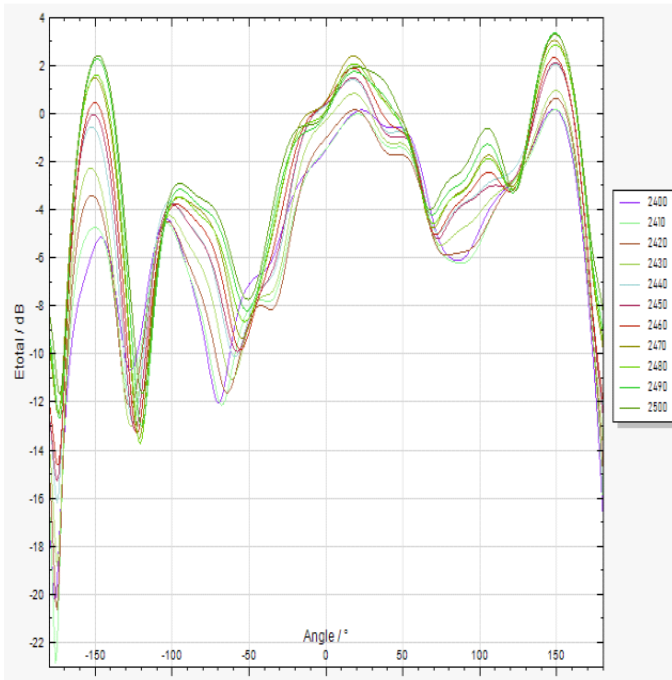
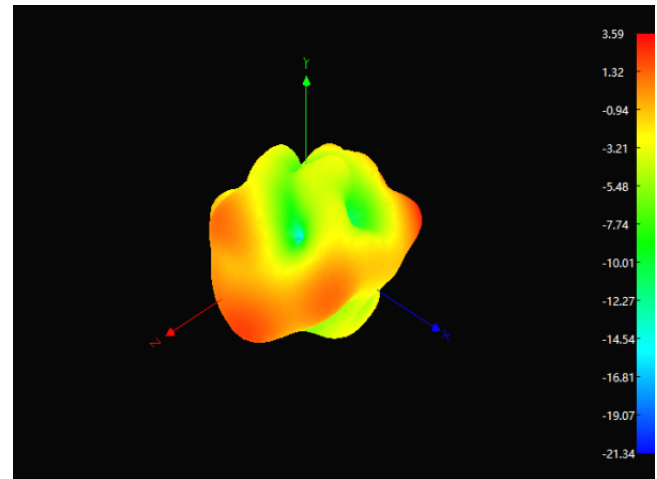
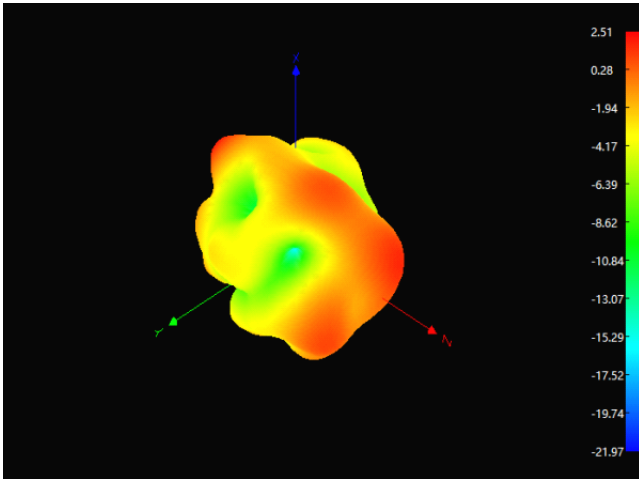
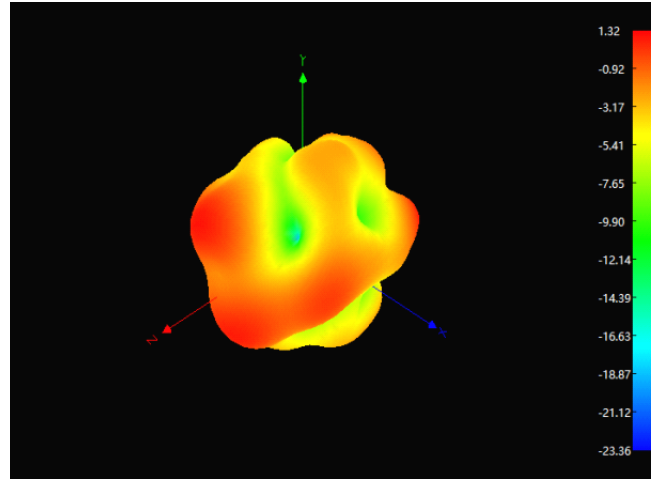
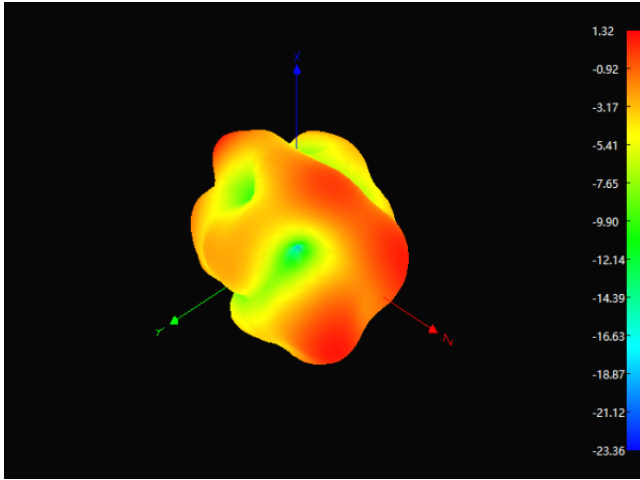
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Gain test:



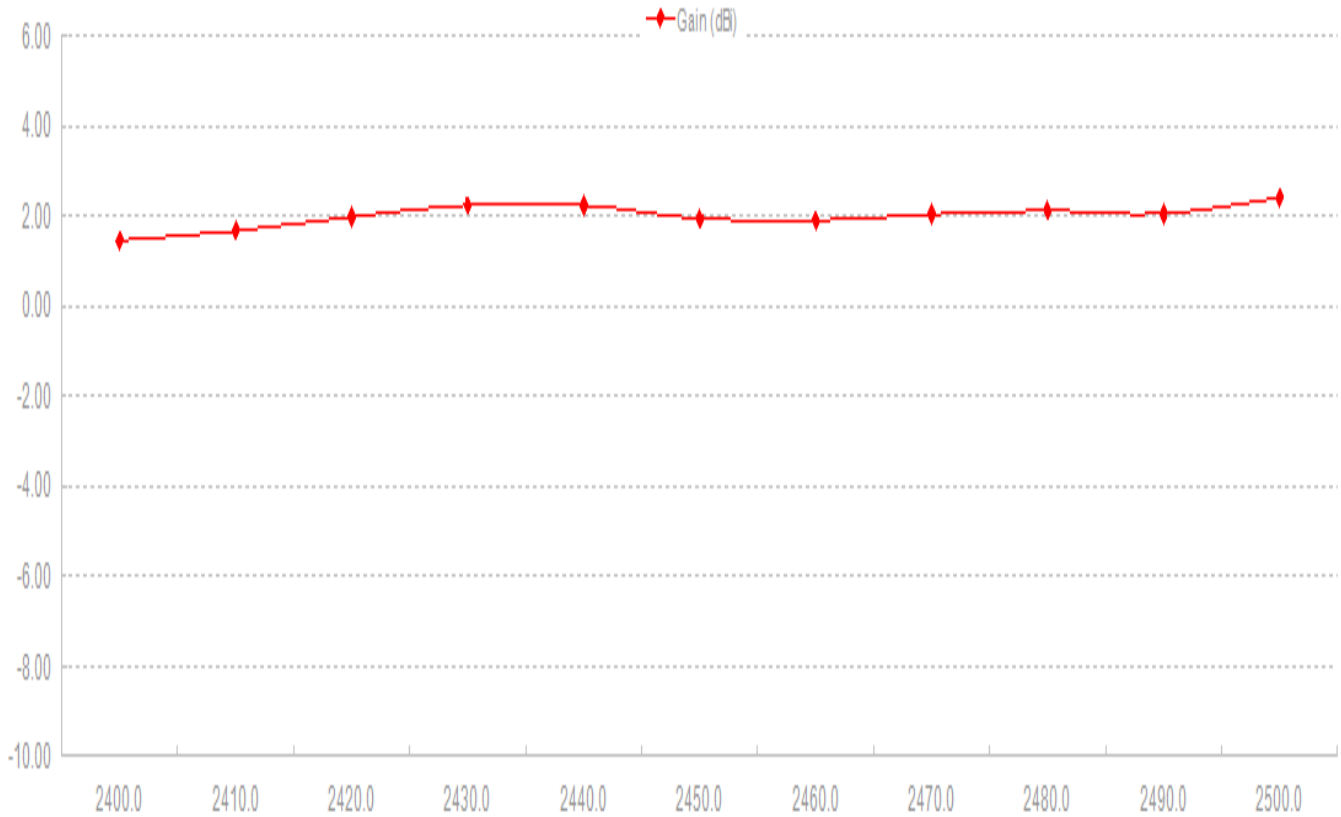


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Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-2.69	-2.52	-2.23	-2.04	-1.95	-2.28	-2.44	-2.49	-2.60	-2.83	-2.45
Peak EIRP (dBm)	1.46	1.67	1.98	2.24	2.24	1.94	1.91	2.04	2.12	2.05	2.41
Directivity (dBi)	4.15	4.19	4.21	4.28	4.19	4.22	4.36	4.52	4.72	4.87	4.86
Efficiency (dB)	-2.69	-2.52	-2.23	-2.04	-1.95	-2.28	-2.44	-2.49	-2.60	-2.83	-2.45
Efficiency (%)	53.80	56.00	59.80	62.50	63.80	59.20	57.00	56.40	55.00	52.20	56.90
Gain (dBi)	1.46	1.67	1.98	2.24	2.24	1.94	1.91	2.04	2.12	2.05	2.41
NHPRP ±Pi/4 (dBm)	-3.69	-3.36	-2.92	-2.52	-2.55	-2.92	-3.24	-3.47	-3.56	-3.59	-2.96
NHPRP ±Pi/6 (dBm)	-4.35	-4.03	-3.59	-3.20	-3.23	-3.60	-3.92	-4.14	-4.22	-4.26	-3.65
NHPRP ±Pi/8 (dBm)	-4.96	-4.64	-4.21	-3.82	-3.85	-4.21	-4.53	-4.75	-4.83	-4.88	-4.29
Upper Hem. PRP (dBm)	-5.17	-4.93	-4.58	-4.35	-4.22	-4.52	-4.66	-4.67	-4.76	-4.96	-4.55
Lower Hem. PRP (dBm)	-6.30	-6.22	-6.01	-5.89	-5.85	-6.22	-6.43	-6.51	-6.65	-6.93	-6.61
Upper Hem. PRP (%)	30.38	32.14	34.79	36.77	37.80	35.31	34.18	34.09	33.41	31.88	35.06
Lower Hem. PRP (%)	23.45	23.85	25.03	25.78	26.03	23.90	22.78	22.33	21.60	20.29	21.82