



Shenzhen Yu Sheng Communications Electronics co., LTD

TEL: +86 0755-28640107

FAX: +86 755 28694967

APPROVAL

REV: A1

Customer:

DESCRIPTION: 2.4G built-in PCB antenna

PART NO.: YS030-0101

CUS PART NO.:

D A T E: 2021-8-6

Submit sample signature:

ENGINEERING DEPARTMENT	Q C DEPARTMENT	SALES DEPARTMENT
Hongliang Tian	Qing Tian	Yulong Nie

Customer acknowledges signature :

ENGINEERING DEPARTMENT	Q C DEPARTMENT	PURCHASING DEPARTMENT

✱ Customer confirmation sample attached column:

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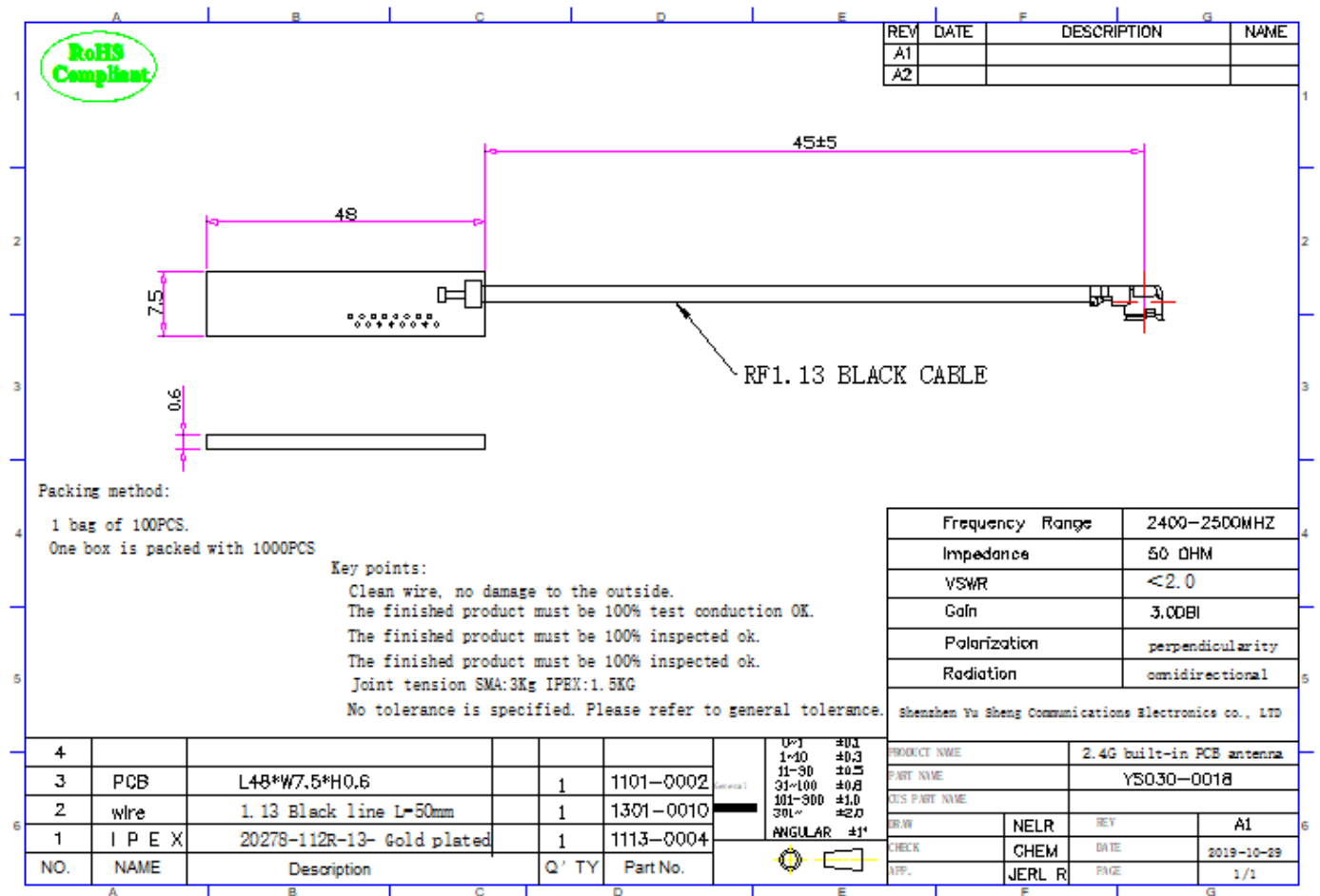
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Technical parameters of electrical apparatus	
Electrical Specifications	
Frequency Range	2400-2500MHZ
VSWR	≤ 2.0
GAIN	2DBI
Input Impedance	50 Ω
Mechanical Specifications	
Antenna Color	BLACK
Input connector	IPEX
Working Temperature	-40°C~+85°C
Working Humidity	20~80%

Product picture:



Specification drawing:

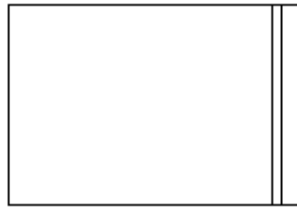


Package drawing:

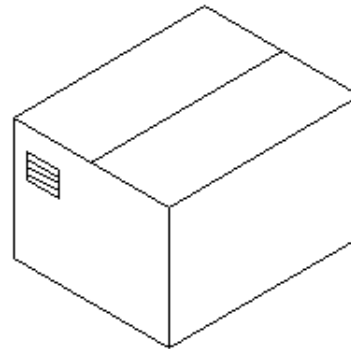
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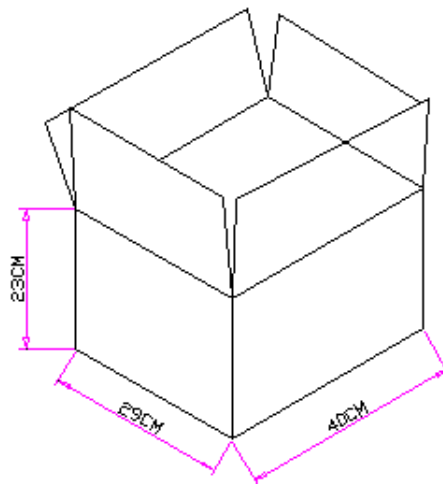
RoHS
Compliant




100PCS/1 bag
Put product labels on each bag



5000PCS/1 box
Label each case with the product



REV	DATE	DESCRIPTION	NAME
A1			
A2			

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<div>tolerance</div> <div></div>	D-F1	F11	
	1~10	±0.3	
	10~30	±0.5	
	31~100	±0.8	
	101~300	±1.0	
	301~	±2.0	
	ANGULAR	±1°	
	DR/WR	NELR	REV.
	CHEK	CHEM	DATE
	APP.	JERL R	PAGE
			2013-10-29
			1/2



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Environmental performance test:

Item	Test condition	specification
Storage environment	Test temperature, humidity, and air pressure without specifying the following: 1. The temperature is $-30^{\circ}\text{C}\sim+80^{\circ}\text{C}$ 2. The relative humidity is 45%-85% 3. The air pressure is 86kpa-106kpa	Electrical and mechanical properties are normal
High and low temperature test	The appearance quality is checked after 5 cycles between 70°C and 40°C , and then 1-2H under normal conditions.	Dimensions shall meet the requirements and shall be satisfied with mechanical and electrical properties.
Resistance to constant damp heat test	The relative humidity was $95\pm 3\%$, and the test temperature was 40°C . After 2H treatment, the electrical properties were measured within 5min after the samples were taken out, and the appearance quality of the samples was checked under normal conditions for 1-2H.	Dimensions shall meet the requirements and shall be satisfied with mechanical and electrical properties.
Vibration test	Vibration frequency range 10-55HZ, displacement amplitude: 0.35MM, acceleration amplitude: 50.0M/S, frequency sweep cycle: 30 times.	Electrical and mechanical properties are normal.
Drop test	Free fall 3 times at 1M altitude in the direction of perpendicular axes.	Electrical and mechanical properties are normal.

Sample test:

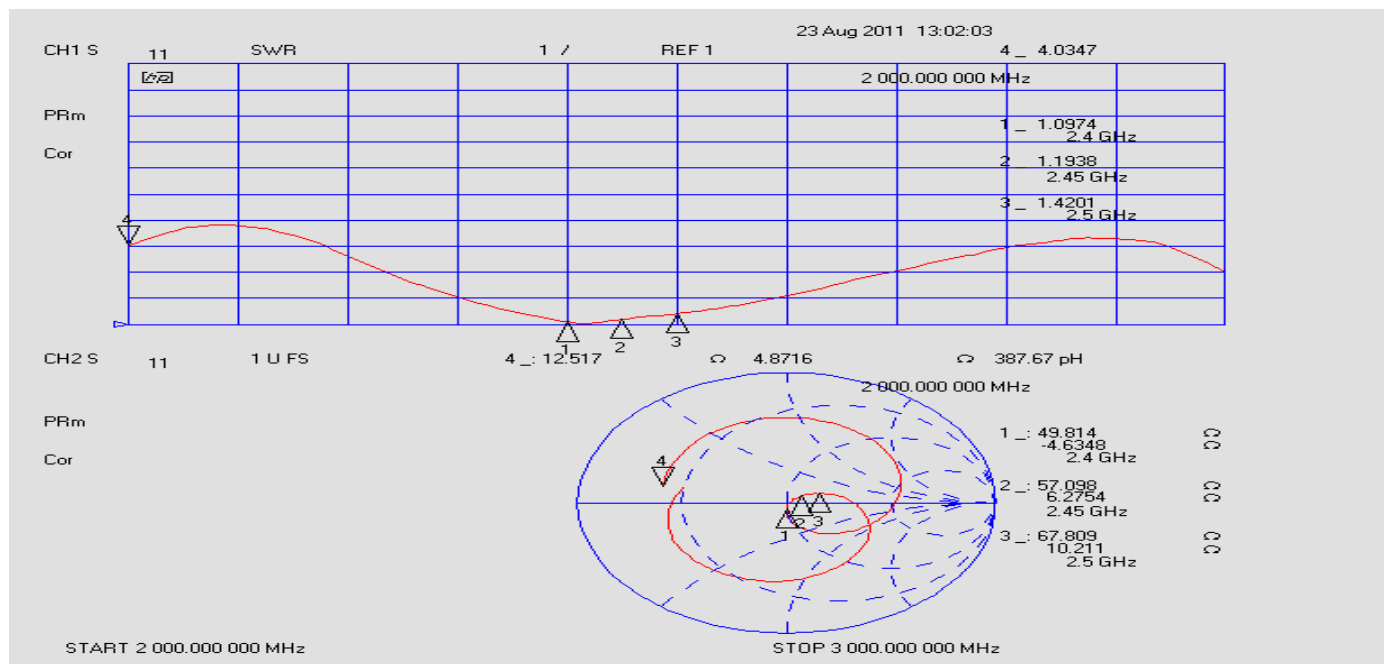
Factory address: Floor 3-4, No. 102, Ao West Road, Ao Bei Yi Village, Henggang Town, Longgang District, Shenzhen



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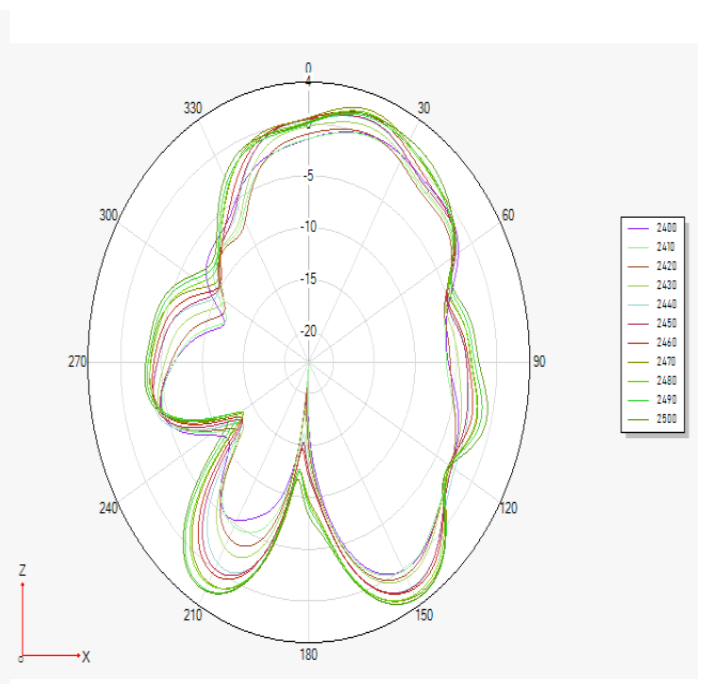
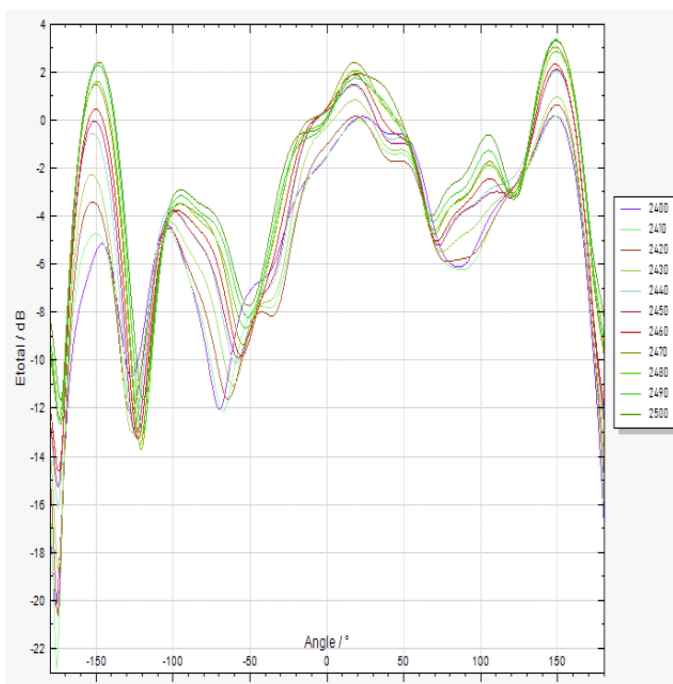
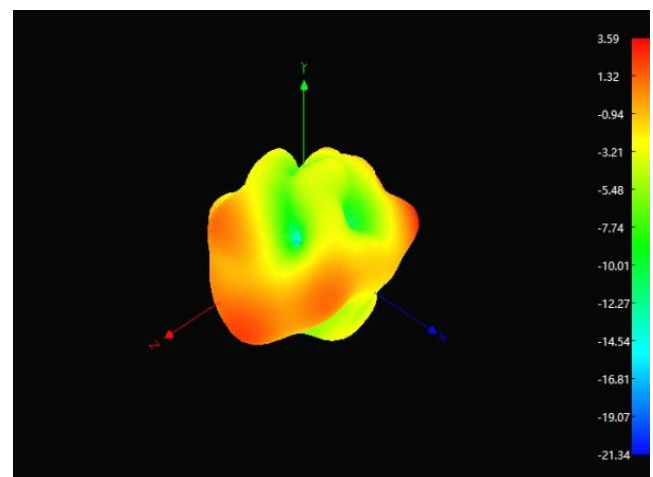
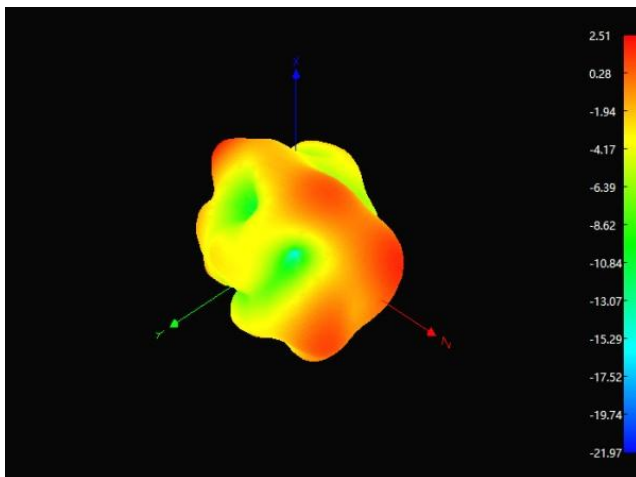
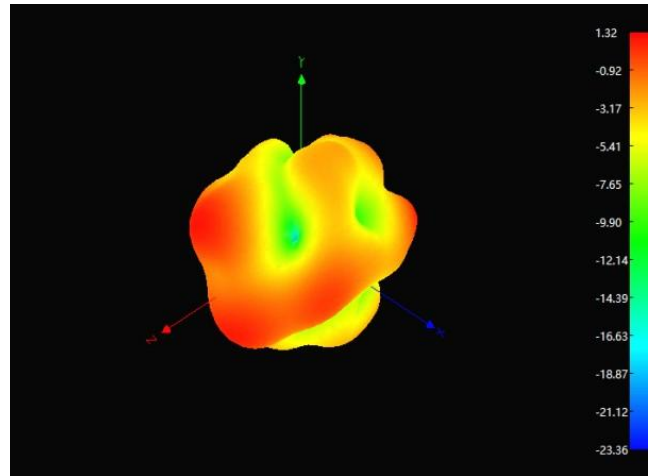
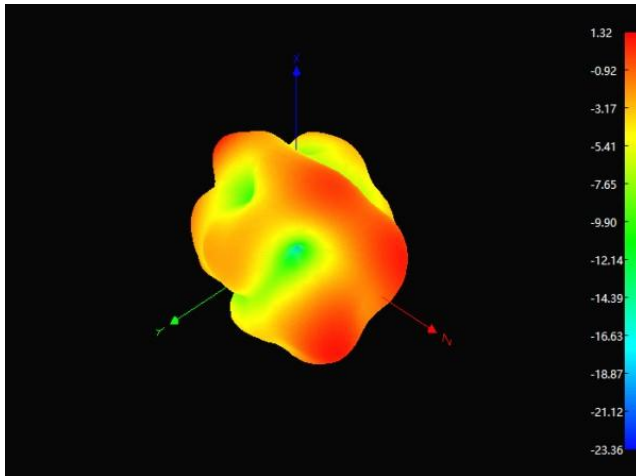


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Gain test:



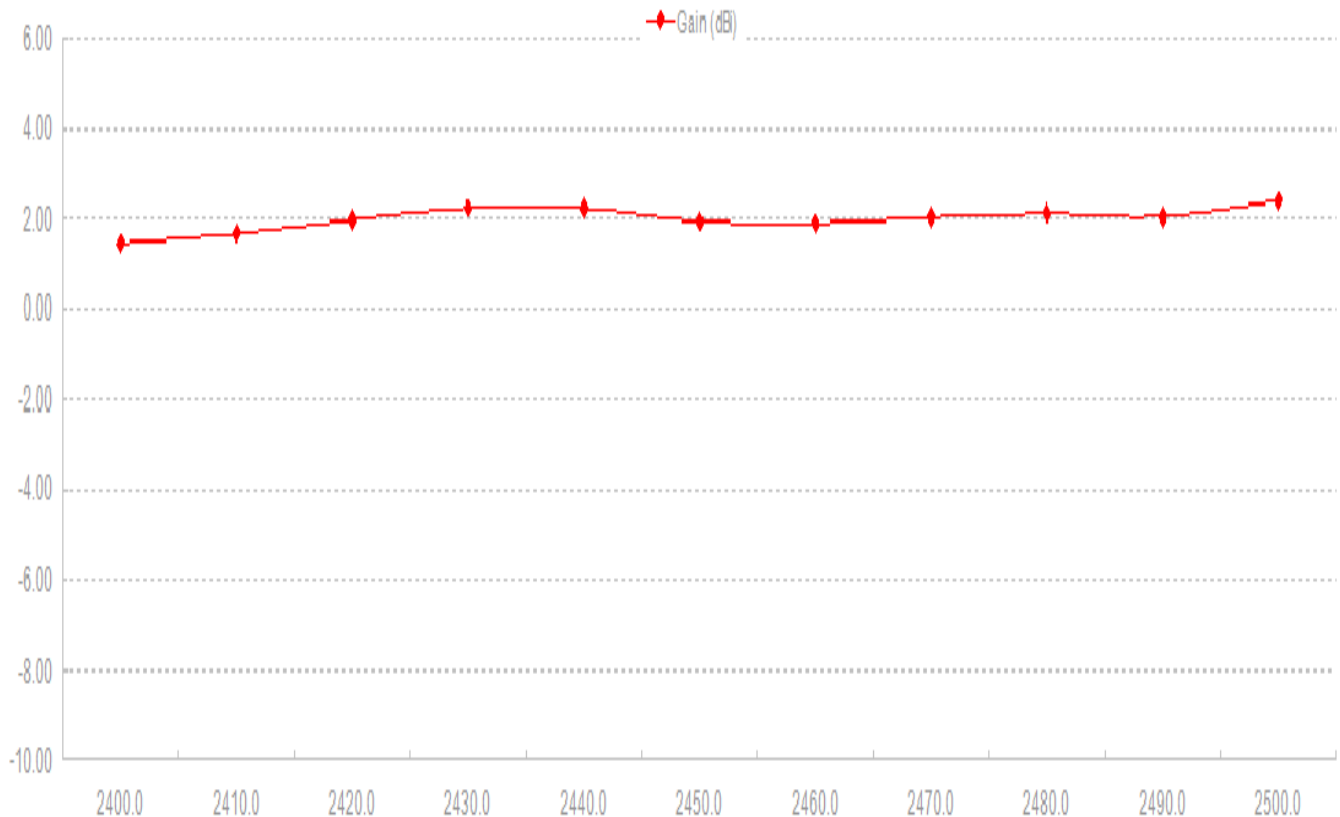
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Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (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 $\pm\pi/4$ (dBm)	-3.69	-3.36	-2.92	-2.52	-2.55	-2.92	-3.24	-3.47	-3.56	-3.59	-2.96
NHPRP $\pm\pi/6$ (dBm)	-4.35	-4.03	-3.59	-3.20	-3.23	-3.60	-3.92	-4.14	-4.22	-4.26	-3.65
NHPRP $\pm\pi/8$ (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

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