



REGULATORY TESTING FROM START TO CERTIFICATE

Intro

Antenna gain documentation required for all FCC Part 15 devices. Must provide either an antenna datasheet/ specification or a test report with gain measurements and plots. This Information cannot be held confidential.

Additionally, proprietary information of the design itself can remain confidential in either the ‘ operational description’ or ‘schematic’.



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Antenna Specification

1. Company: Pasternack
2. Product name: PE51RD1021
3. Antenna description

Antenna type	“Rubber duck” omnidirectional
Antenna manufacturer	if exist; if yes indicate part number
Antenna datasheet	PE51RD1021.pdf
Frequency range	2.4 - 2.5GHz
Modulation	N/A
Antenna gain max (peak)	2.6dBi
Cable loss	N/A
VSWR	2:1
Connector type	RP-SMA

4. Antenna layout
Antenna is external to the device
5. Antenna radiation pattern
Please refer to [appendix A >>](#)



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6. Antenna photo



7. RF-auxiliaries - only for body worn equipment

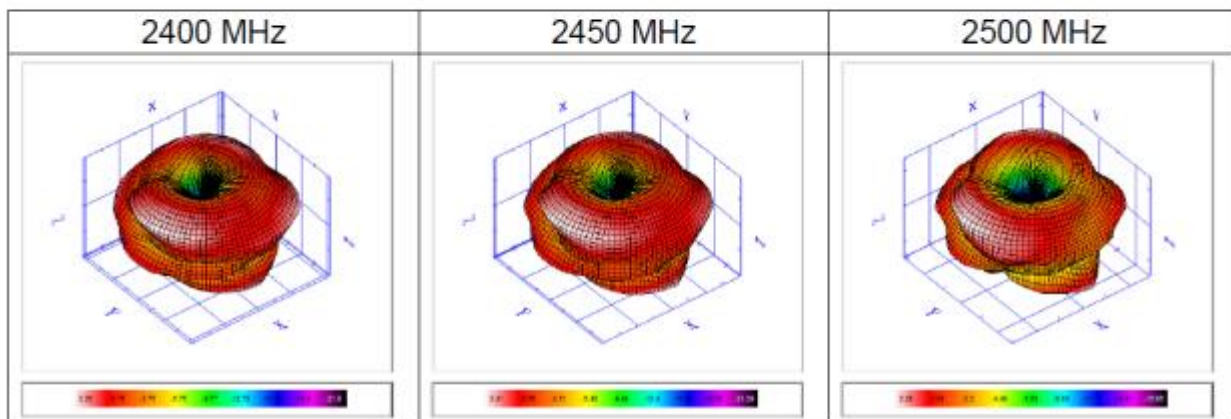
Belt clip

Appendix A - Radiation Pattern

Product Number: PE51RD1021

Product Name: Antenna

Antenna – Radiation Pattern Test Data



Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
TRP (dBm)	-1.59	-1.49	-1.45	-1.42	-1.62	-1.45	-1.62	-1.74	-1.88	-1.84	-1.64
Peak EIRP (dBm)	2.26	2.38	2.6	2.57	2.32	2.41	2.37	2.25	2.03	2.08	2.28
NHPRP +/- 45 (degree)	-2.39	-2.26	-2.21	-2.17	-2.37	-2.2	-2.36	-2.48	-2.61	-2.56	-2.32
NHPRP +/- 30 (degree)	-3.96	-3.85	-3.82	-3.8	-4	-3.83	-4.01	-4.12	-4.28	-4.21	-3.93
E-Theta Peak Gain (dBi)	-6.15	-5.91	-6.3	-6.67	-6.83	-6.66	-6.71	-6.86	-6.87	-7.87	-7.65
E-Phi Peak Gain (dBi)	2.26	2.37	2.59	2.56	2.31	2.31	2.36	2.23	1.96	1.99	2.23
E-Total Peak Gain (dBi)	2.26	2.38	2.6	2.57	2.32	2.41	2.37	2.25	2.03	2.08	2.28
Directivity (dBi)	3.85	3.87	4.04	3.99	3.94	3.86	3.99	3.99	3.91	3.92	3.93
Efficiency (%)	69.39	70.97	71.67	72.17	68.86	71.65	68.91	66.95	64.91	65.39	68.47