

Antenna Spec:

Antenna size 46x3.8mm
Freq range 2.405GHz-2.475GHz
VSWR 2 Max
Gain 0dBi max

Impedance 50ohm

Antenna type Printed antenna

Polarization Linear

Max Power 200mW

Operating temp -20 to +55 deg celcius

Interconnection and cable
assembly

MMCX RF cable connector

Manufacturer:

RALTRON ELECTRONICS ▪ 3075 N.W. 107th Ave ▪
Miami , Florida 33172 ▪ U.S.A. Telephone: +1-305-593-
6033 ▪ Fax: +1-305-594-3973 ▪ e-mail:
sales@raltron.com ▪ web: <http://www.raltron.com>

PN:

RPC-W2A1-4603-5M-W-002

Testing LAB

Hermon labs - <https://hermonlabs.com/>

Manufacturer and address:

Cardo Systems Ltd
101 E Park Blvd Suite 600, Plano. TX75074
United States

Antenna testing laboratory:

Hermon Laboratories Ltd.
66 Hatachana St., POB 23
Binyamina 3055001, Israel

Tester:
Stanislav Sugatov Test Engineer EMC & Radio

stanislav.s@hermonlabs.com
Phone: +972 4 628 8001

Antenna Horn:	HL2432
Manufacturer:	EMC Test Systems
Model:	3115
Date of Calibration:	4/2/2025
Calibration Service Provided:	Hermon Laboratories
Calibration Period:	1 year

EXA Signal Analyzer:	HL5376
Manufacturer:	Keysight Technologies
Model:	N9010B
Date of Calibration:	16-Jan-25
Calibration Service Provided:	Hermon Laboratories
Calibration Period:	1 year

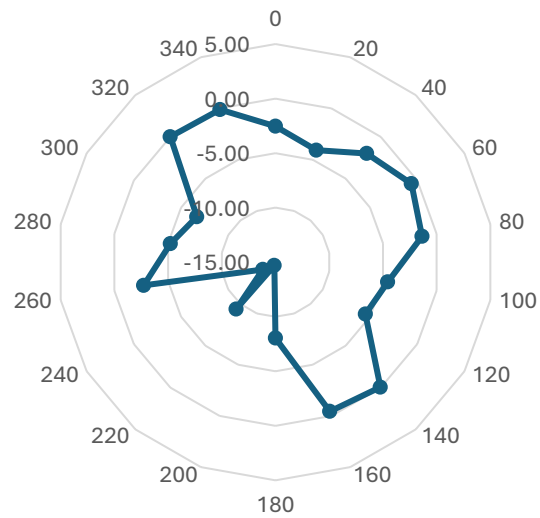
Cable:	HL5668
Manufacturer:	Huber-Suhner
Model:	SF126EA
Date of Calibration:	9/14/2025
Calibration Service Provided:	Hermon Laboratories
Calibration Period:	1 year

	Name and Title	Date	Signature
Tested by:	Mr. S. Sugatov, test engineer, EMC & Radio	13-Jan-26	
Reviewed by:	Mrs. S. Peysahov Sheynin, certification specialist, EMC & Radio	15-Jan-25	

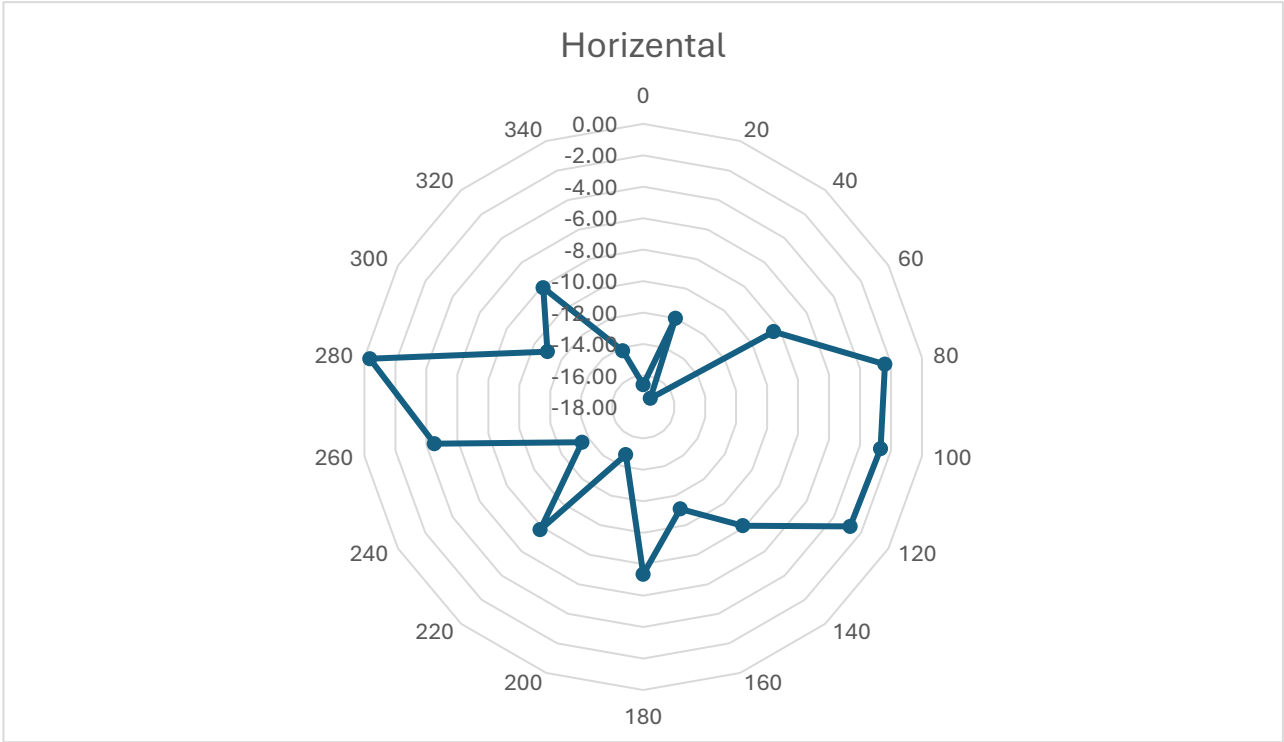
Measurement setup pics:

Vertical			
Frequency: 2405		MHz	
Angle (deg)	Spectrum Analyzer reading (dBuV/m)	EIRP, dBm	Antenna Pattern, dB
0	104.69	9.46	-2.54
20	103.16	7.93	-4.07
40	105.24	10.01	-1.99
60	106.62	11.39	-0.61
80	108.87	13.64	-1.36
100	102.68	7.45	-4.55
120	101.75	6.52	-5.48
140	107.19	11.96	-0.04
160	109.79	14.56	-0.44
180	99.19	3.96	-8.04
200	92.55	-2.68	-14.68
220	97.85	2.62	-9.38
240	93.57	-1.66	-13.66
260	104.50	9.27	-2.73
280	102.01	6.78	-5.22
300	100.56	5.33	-6.67
320	107.24	12.01	0.01
340	112.12	16.89	-0.11

Vertical



Horizontal			
Frequency: 2405		MHz	
Angle (deg)	Spectrum Analyzer reading (dBuV/m)	EIRP, dBm	Antenna Pattern, dB
0	93.64	-1.59	-16.59
20	98.23	3.00	-12.00
40	92.94	-2.29	-17.29
60	101.81	6.58	-8.42
80	107.84	12.61	-2.39
100	107.56	12.33	-2.67
120	107.43	12.20	-2.80
140	102.09	6.86	-8.14
160	99.13	3.90	-11.10
180	102.87	7.64	-7.36
200	95.46	0.23	-14.77
220	102.42	7.19	-7.81
240	96.72	1.49	-13.51
260	105.71	10.48	-4.52
280	109.88	14.65	-0.35
300	99.26	4.03	-10.97
320	102.12	6.89	-8.11
340	96.03	0.80	-14.20

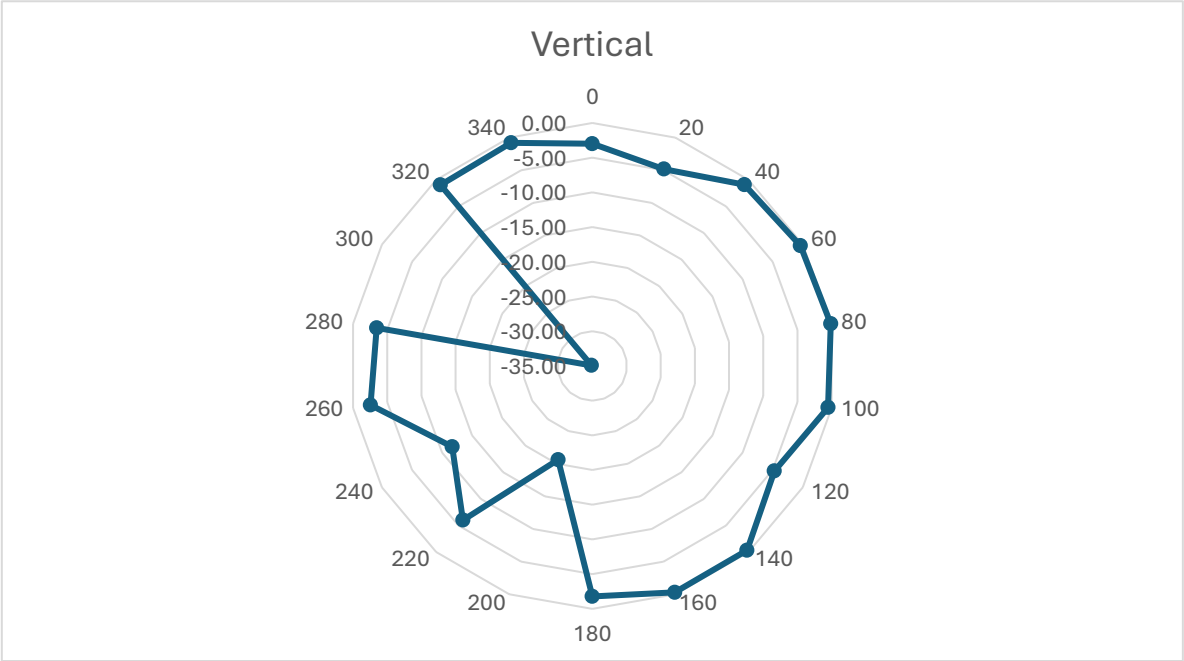


Spectrum Analyzer Data			sweep time 20 ms Substitution
Span	10	MHz	
RBW	1000	kHz	
VBW	3000	kHz	
Ref Level	120	dBuV/m	
SG	0	dBm	
F, MHz	2480	MHz	
SA reading	103.87	dBuV/m	
AG, dBi	10.3	dBi	
Cable Loss	3.17	dB	
Antenna polarization Vertical			
Antenna Horn HL 4474			

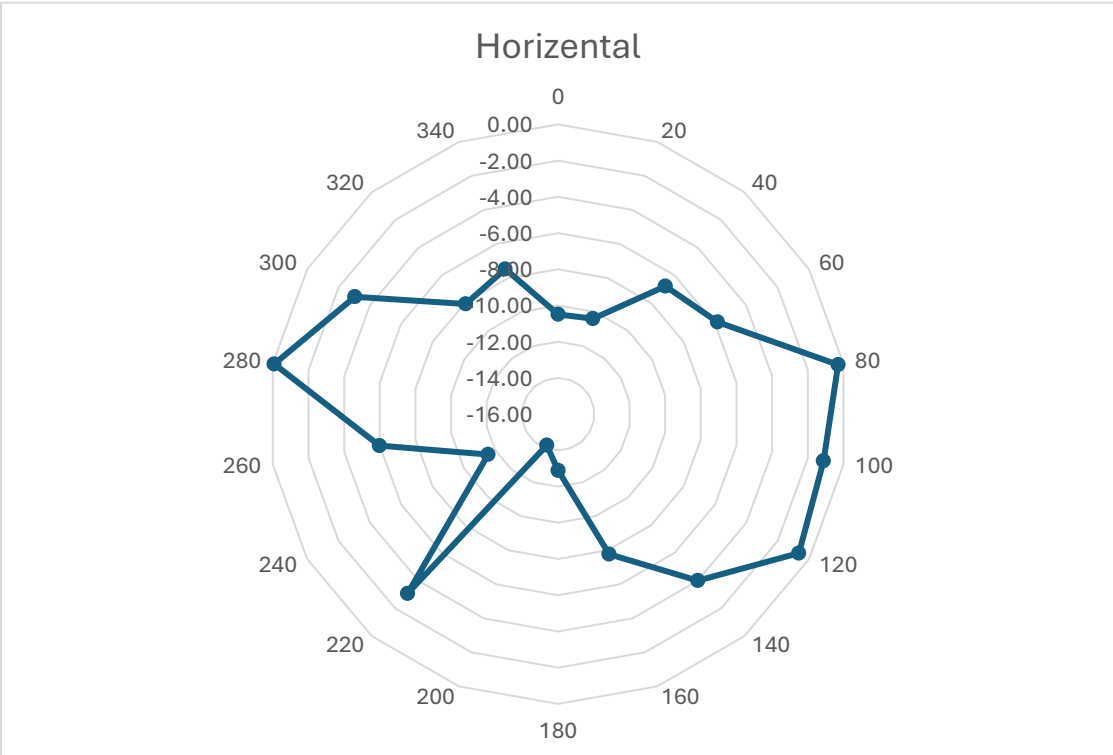
Gain measurement calculation:

=- (Refernce SA reading)+(SA reading of Antenna Power)+(Refernce Signal Generator RF Power)+(Ref Antenna gain)-(Refrence Antenna cable loss)

Vertical			
Frequency: 2440		MHz	
Angle (deg)	Spectrum Analyzer reading (dBuV/m)	EIRP, dBm	Antenna Pattern, dB
0	104.24	9.01	-2.99
20	102.40	7.17	-4.83
40	107.31	12.08	-0.92
60	107.86	12.63	-0.37
80	110.11	14.88	-0.12
100	108.72	13.49	-0.51
120	102.52	7.29	-4.71
140	108.91	13.68	-0.32
160	108.95	13.72	-0.28
180	105.44	10.21	-1.79
200	86.62	-8.61	-20.61
220	101.23	6.00	-6.00
240	95.54	0.31	-11.69
260	104.68	9.45	-2.55
280	103.77	8.54	-3.46
300	72.37	-22.86	-34.86
320	106.27	11.04	-0.96
340	111.43	16.20	-0.80



Horizontal			
Frequency: 2440		MHz	
Angle (deg)	Spectrum Analyzer reading (dBuV/m)	EIRP, dBm	Antenna Pattern, dB
0	96.74	1.51	-10.49
20	96.84	1.61	-10.39
40	100.45	5.22	-6.78
60	101.40	6.17	-5.83
80	106.93	11.70	-0.30
100	108.11	12.88	-1.12
120	108.58	13.35	-0.65
140	103.23	8.00	-4.00
160	99.46	4.23	-7.77
180	94.34	-0.89	-12.89
200	93.06	-2.17	-14.17
220	104.16	8.93	-3.07
240	95.69	0.46	-11.54
260	101.25	6.02	-5.98
280	110.15	14.92	-0.08
300	104.19	8.96	-3.04
320	99.17	3.94	-8.06
340	99.76	4.53	-7.47

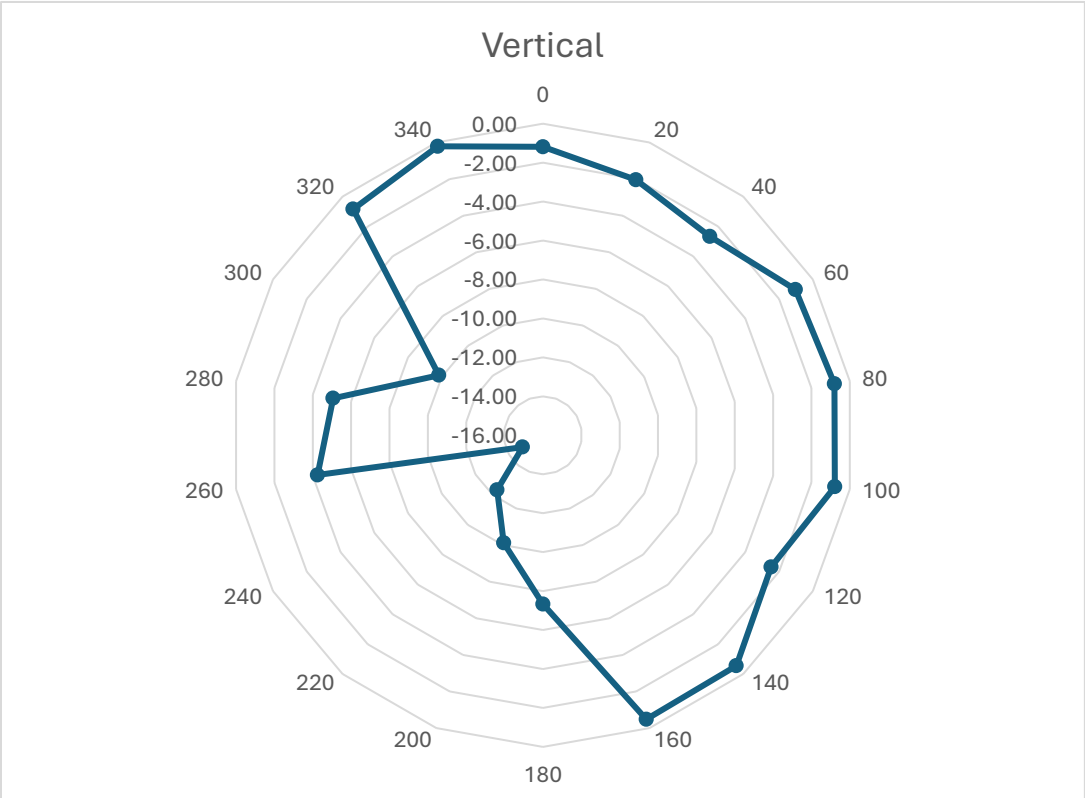


Spectrum Analyzer Data			sweep time 20 ms Substitution
Span	10	MHz	
RBW	1000	kHz	
VBW	3000	kHz	
Ref Level	120	dBuV/m	
SG	0	dBm	
F, MHz	2480	MHz	
SA reading	103.87	dBuV/m	
AG, dBi	10.3	dBi	
Cable Loss	3.17	dB	
Antenna polarization Vertical			
Antenna Horn HL 4474			

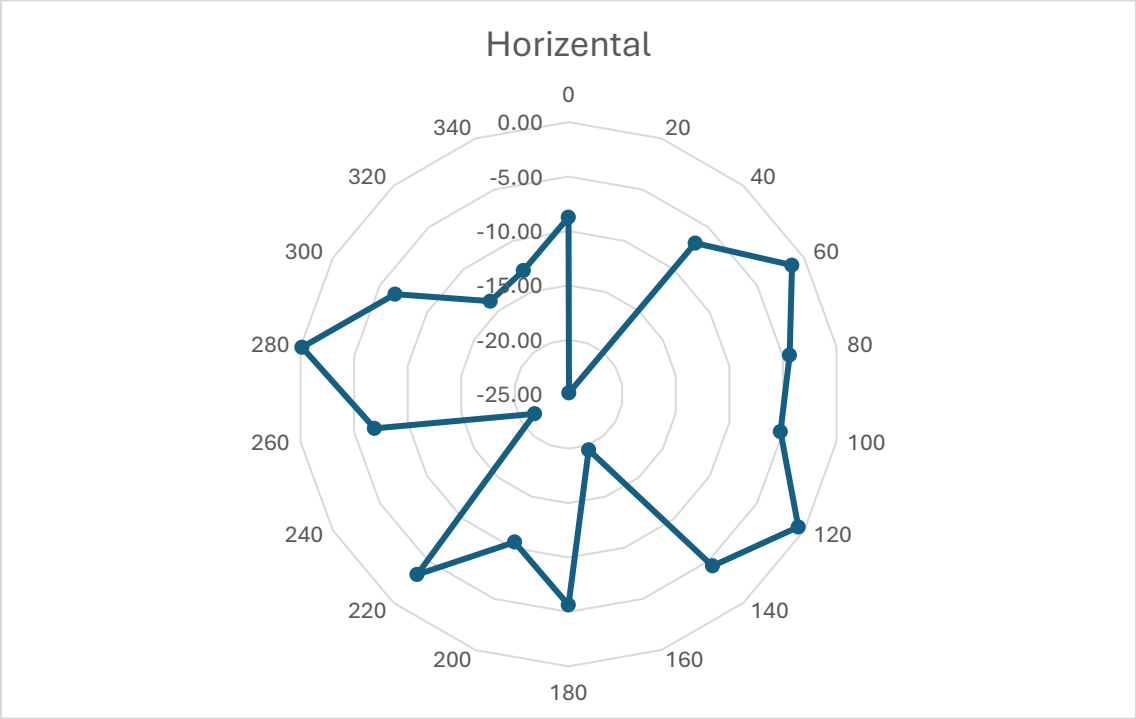
Gain measurement calculation:

$$=-(\text{Reference SA reading})+(\text{SA reading of Antenna Power})+(\text{Reference Signal Generator RF Power})+(\text{Ref Antenna gain})-(\text{Reference Antenna cable loss})$$

Vertical			
Frequency: 2475		MHz	
Angle (deg)	Spectrum Analyzer reading (dBuV/m)	EIRP, dBm	Antenna Pattern, dB
0	106.04	10.81	-1.19
20	105.19	9.96	-2.04
40	104.56	9.33	-2.67
60	109.20	13.97	-1.03
80	111.43	16.20	-0.80
100	107.45	12.22	-0.78
120	104.76	9.53	-2.47
140	106.68	11.45	-0.55
160	107.75	12.52	-0.48
180	99.90	4.67	-7.33
200	97.11	1.88	-10.12
220	94.89	-0.34	-12.34
240	92.44	-2.79	-14.79
260	102.98	7.75	-4.25
280	102.17	6.94	-5.06
300	97.40	2.17	-9.83
320	109.39	14.16	-0.84
340	113.02	17.79	-0.21



Horizontal			
Frequency: 2475		MHz	
Angle (deg)	Spectrum Analyzer reading (dBuV/m)	EIRP, dBm	Antenna Pattern, dB
0	98.49	3.26	-8.74
20	82.36	-12.87	-24.87
40	100.35	5.12	-6.88
60	105.94	10.71	-1.29
80	102.86	7.63	-4.37
100	102.01	6.78	-5.22
120	106.61	11.38	-0.62
140	102.82	7.59	-4.41
160	87.67	-7.56	-19.56
180	101.59	6.36	-5.64
200	96.68	1.45	-10.55
220	103.86	8.63	-3.37
240	85.82	-9.41	-21.41
260	100.32	5.09	-6.91
280	109.08	13.85	-0.15
300	100.62	5.39	-6.61
320	93.39	-1.84	-13.84
340	94.32	-0.91	-12.91



Spectrum Analyzer Data			sweep time 20 ms Substitution
Span	10	MHz	
RBW	1000	kHz	
VBW	3000	kHz	
Ref Level	120	dBuV/m	
SG	0	dBm	
F, MHz	2440	MHz	
SA reading	103.5	dBuV/m	
AG, dBi	10.2	dBi	
Cable Loss	3.12	dB	
Antenna polarization Vertical			
Antenna Horn HL 4474			

Gain measurement calculation:
 =-(Refernce SA reading)+(SA reading of Antenna Power)+(Refernce Signal Generator RF Power)+(Ref Antenna gain)-(Refrence Antenna cable loss)