



F2 Labs
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ANTENNA MEASUREMENTS

Manufacturer: SECO S.p.A.
Via Achille Grandi 20
Arezzo 52100 ITALY

Applicant: Same As Above

Antenna: Chandler Custom PCB Trace Antenna

Testing Commenced: 2026-05-11

Testing Ended: 2026-05-11

Note: Test report reflects antenna measurements to support
FCC ID: 2ALZB-PN5180.

Evaluation Conducted by:

Erik Tobin, EMC Engineer

Report Reviewed by:

Ken Littell, Vice President of Operations

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1 ADMINISTRATIVE INFORMATION

1.1 Measurement Location:

F2 Labs in Middlefield, Ohio. Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

1.2 Measurement Procedure:

All measurements were performed according to ANSI C63.10 and recommended FCC procedure of measurement.

1.3 Document History

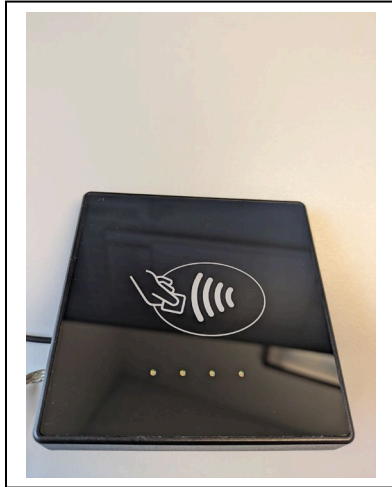
Document Number	Description	Issue Date	Approved By
F2X369998-C1-03E	First Issue	2026-05-11	K. Littell



2 EUT INFORMATION AND DATA

2.1 Equipment Under Test:

Antenna: SECO S.p.A. 4GH903-0657RE-01P PCB Trace



2.2 Accessories:

Device	Manufacturer	Model Number	Serial Number
KarL4 MDB FCC ID: 2ALZB-PN5180	SECO S.p.A.	KarL4 Contactless Payment Controller LTE USA	04884662



3 LIST OF MEASUREMENT INSTRUMENTATION

Equipment Type	Asset Number	Manufacturer	Model	Serial Number	Calibration Due Date
Shielded Chamber	CL166-E	Albatross Projects	B83117-DF435-T261	US140023	2027-05-07
Receiver	CL151	Rohde & Schwarz	ESU40	100319	2027-04-08
Low Loss Cable Set	CL315 / CL318	Fairview Microwave	FMC0202914-72/FMC0202914-240	None Spec.	2027-04-10
18" Active Loop	CL194	AH Systems, Inc.	SAS-562B	281	2026-05-15
Software:	Tile Version 3.4.B.3.		Software Verified: 2026-05-01		
Temp/Hum Rec	CL297	Extech	445703	0721	2027-10-08



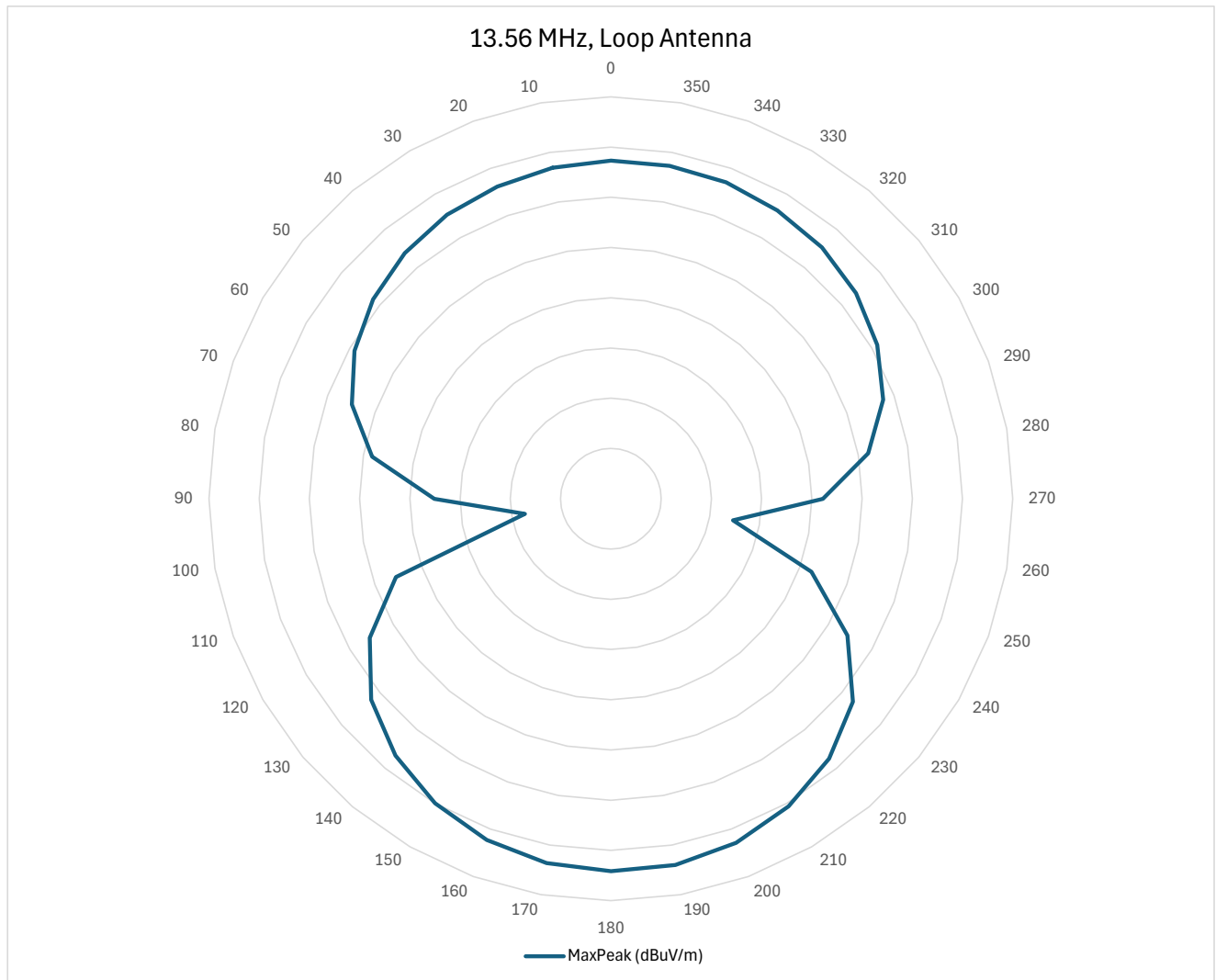
4 MEASUREMENTS

Test Date(s):	2026-05-11	Test Engineer:	E. Tobin
Relative Humidity:	35%	Air Temperature:	22.9°C

Note: Loop was checked in all three orthogonal orientations to ensure Worst-case and measurements were made in the worst-case orientation axis.

Loop Antenna

Frequency (MHz)	Azimuth (deg)	MaxPeak (dBμV/m)	Delta
13.560000	0	33.651	3.42
13.560000	350	33.631	3.44
13.560000	340	33.521	3.55
13.560000	330	33.131	3.94
13.560000	320	32.671	4.4
13.560000	310	31.841	5.23
13.560000	300	30.621	6.45
13.560000	290	28.841	8.23
13.560000	280	26.011	11.06
13.560000	270	21.111	15.96
13.560000	260	12.341	24.73
13.560000	250	21.241	15.83
13.560000	240	27.191	9.88
13.560000	230	31.441	5.63
13.560000	220	33.771	3.3
13.560000	210	35.351	1.72
13.560000	200	36.441	0.63
13.560000	190	37.011	0.06
13.560000	180	37.071	0
13.560000	170	36.821	0.25
13.560000	160	36.131	0.94
13.560000	150	34.991	2.08
13.560000	140	33.361	3.71
13.560000	130	31.141	5.93
13.560000	120	27.701	9.37
13.560000	110	22.761	14.31
13.560000	100	8.691	28.38
13.560000	90	17.571	19.5
13.560000	80	24.131	12.94
13.560000	70	27.441	9.63
13.560000	60	29.451	7.62
13.560000	50	30.881	6.19
13.560000	40	31.921	5.15
13.560000	30	32.631	4.44
13.560000	20	33.051	4.02
13.560000	10	33.451	3.62



5 EUT SETUP PHOTOGRAPH(S)

Radiated Measurement Test Setup

