

Frequency stability test results

No.24-1-0023901T001_TR1-A202-R01

August 02, 2024

Test Standard(s) NA - NI

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Authorized

Timo Franke
Testing Manager
Radio Labs

NA # Frequency accuracy over temperature and voltage ~

References

TC start	02.08.2024 12:09:07
Ambit temp [°C] humidity [rel%]	not enabled not enabled
System version	5.0.7.6
Standard Version	NA NI
Method	
Description	Frequency Accuracy over Temp. and Voltage
Information	

Equipment

Signal analyzer,Rohde&Schwarz,FSV3030,1330.5000K30/101247,1.90
Switch matrix,cetecom advanced GmbH,USM,D001,1.0.0

Test Parameter

Additional path loss [dB]	-23.1
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/
Switch bits	00000001:00000001:00000000:00000110
Temp Variation enabled Voltage Variation enabled	Yes Yes
Message start	02.08.2024 12:09:09

Equipment

Signal analyzer,Rohde&Schwarz,FSV3030,1330.5000K30/101247,1.90
Power supply,HEWLETT-PACKARD,E3632A,0,1.1-5.0-1.0
Climatic box,Voetsch,VT4002,56604682,LAN

RESULT: Reference power with small filter

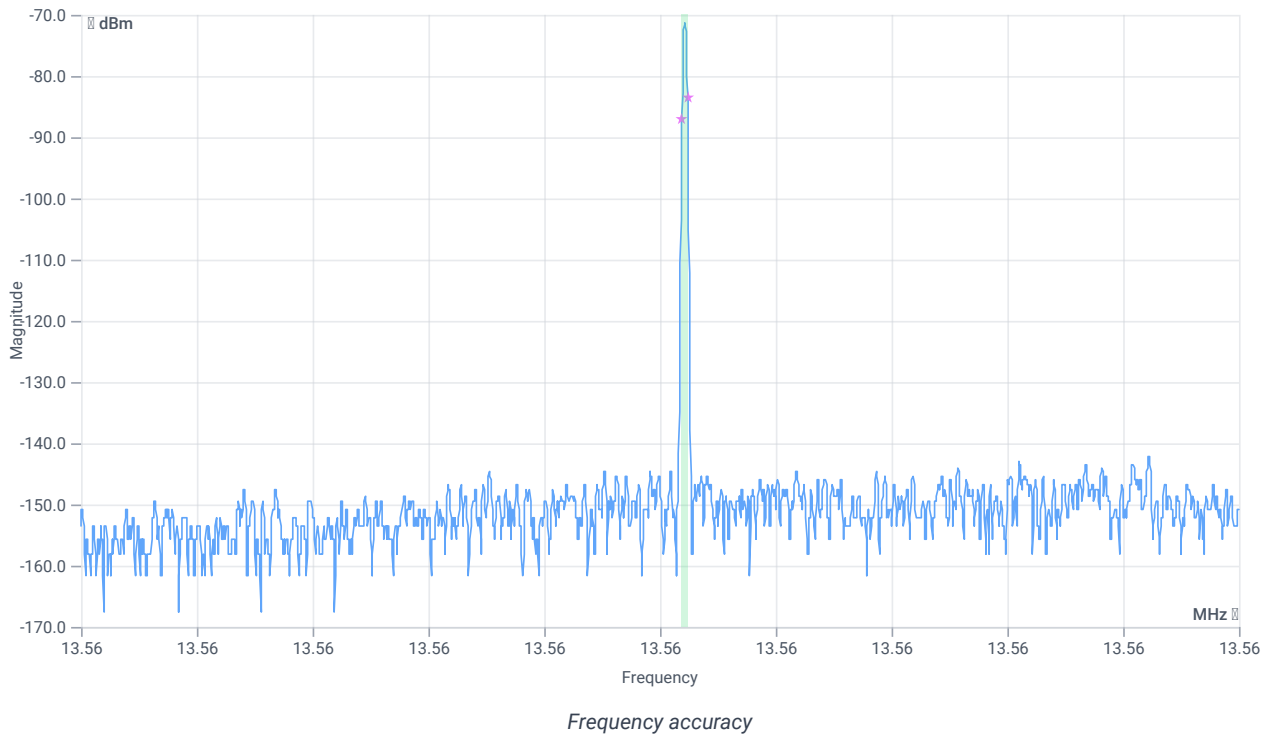
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 0.1MHz/0.1MHz	---	---	-67.76	dBm	INFO
Ref. frequency	---	---	13.561	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-64.76 -22.64 0
Start [MHz] Stop [MHz]	13.558 13.563
RBW [MHz] VBW [MHz]	0.000010 0.000100
Detector TraceMode	POS MAXH

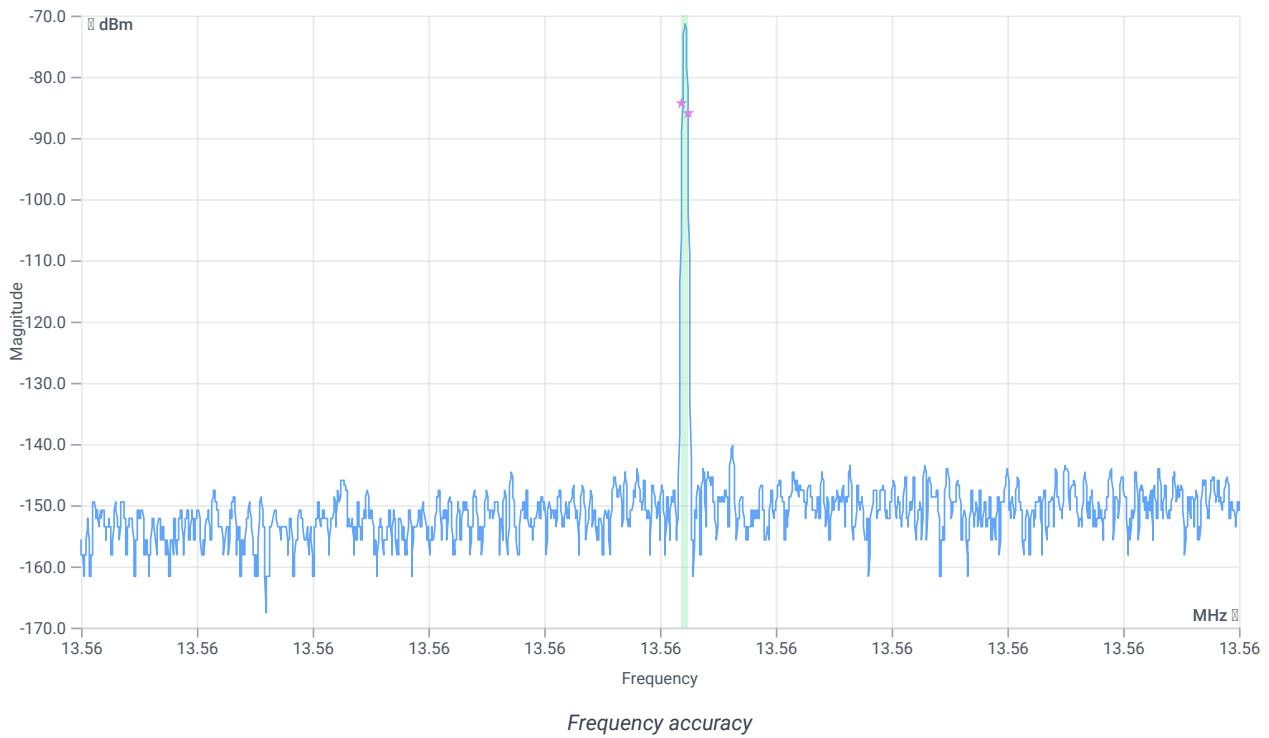
READ SA SETTINGS:

Sweep: time [ms] | count | points per Section | type 7980 | 2 | 3001 | SWE



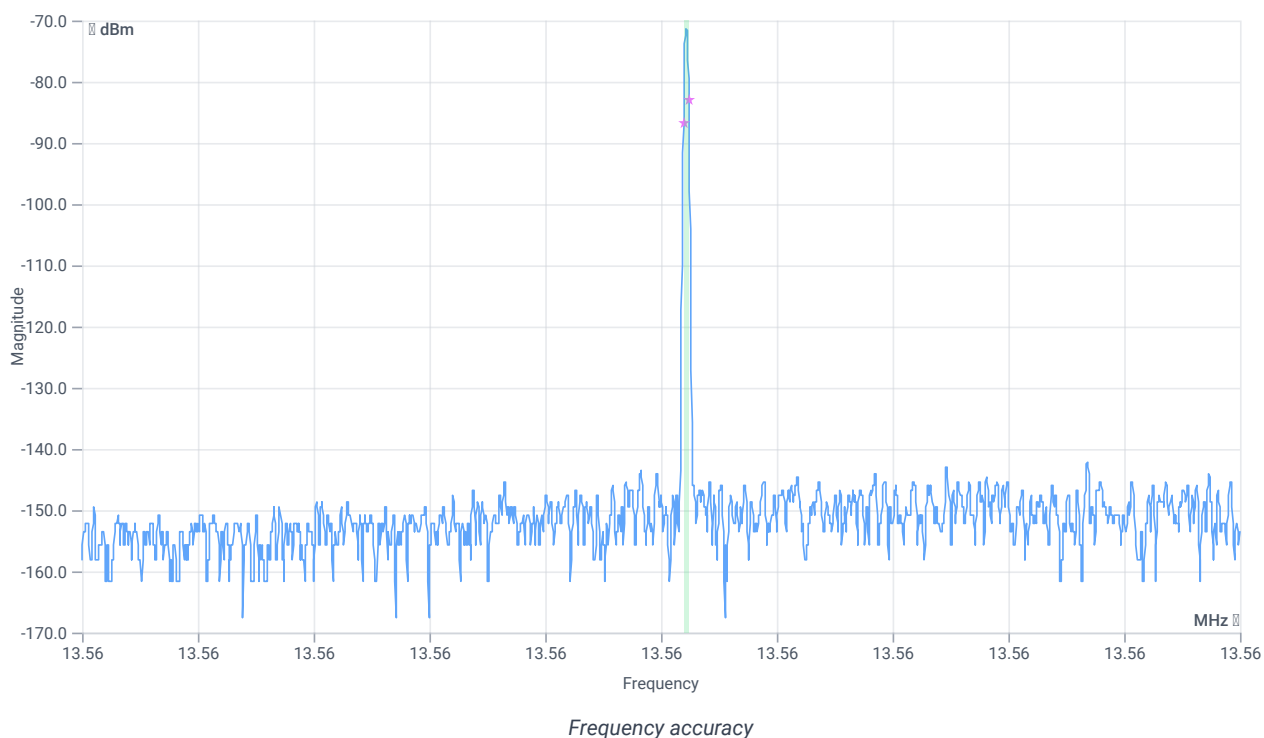
RESULT Temperature [°C]: 20 | Voltage [V]: 3.6

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	0.000	MHz	INFO
T1 99%	---	---	13.5601	MHz	INFO
T2 99%	---	---	13.5601	MHz	INFO
F0	---	---	13.560107	MHz	INFO
Ftarget	---	---	13.560000	MHz	INFO
Foffset	---	---	0.000107	MHz	INFO
Foffset	---	---	0.107	kHz	INFO
Foffset (abs)		100	7.91	ppm	PASS



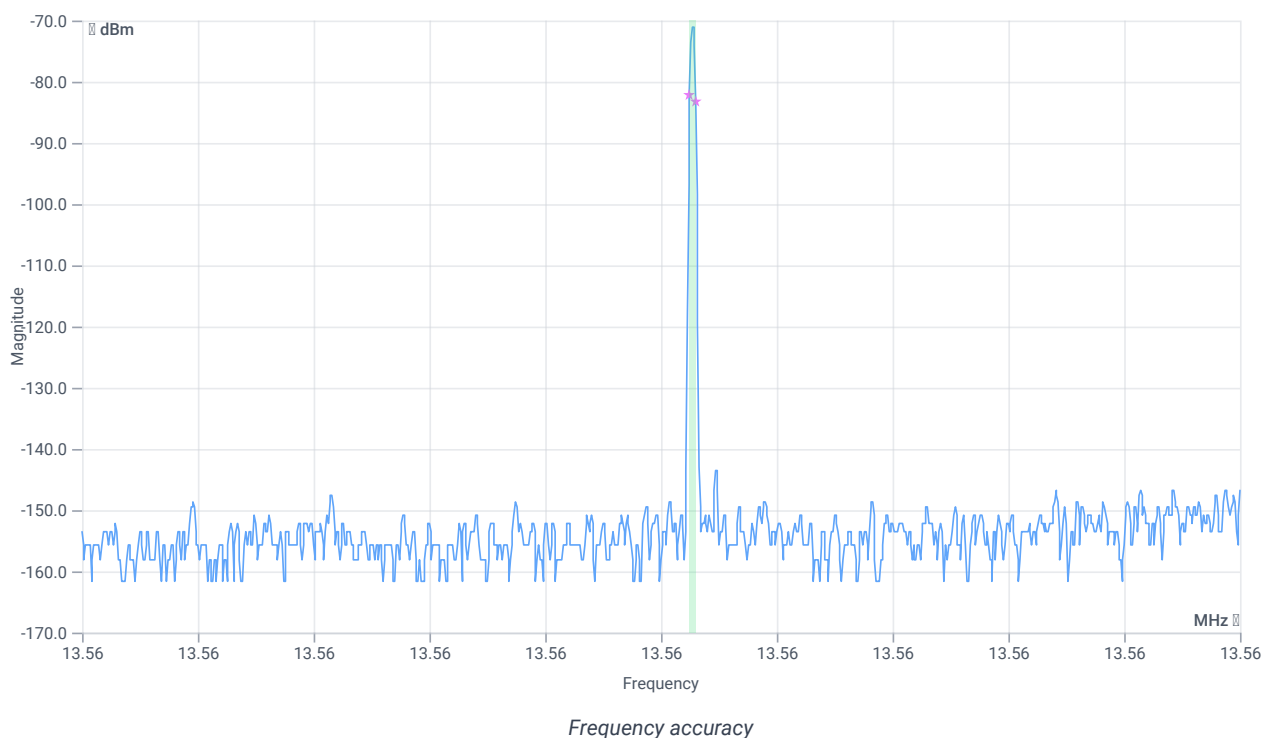
RESULT Temperature [°C]: 20 | Voltage [V]: 3.06

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	0.000	MHz	INFO
T1 99%	---	---	13.5601	MHz	INFO
T2 99%	---	---	13.5601	MHz	INFO
F0	---	---	13.560108	MHz	INFO
Ftarget	---	---	13.560000	MHz	INFO
Foffset	---	---	0.000108	MHz	INFO
Foffset	---	---	0.108	kHz	INFO
Foffset (abs)		100	7.96	ppm	PASS



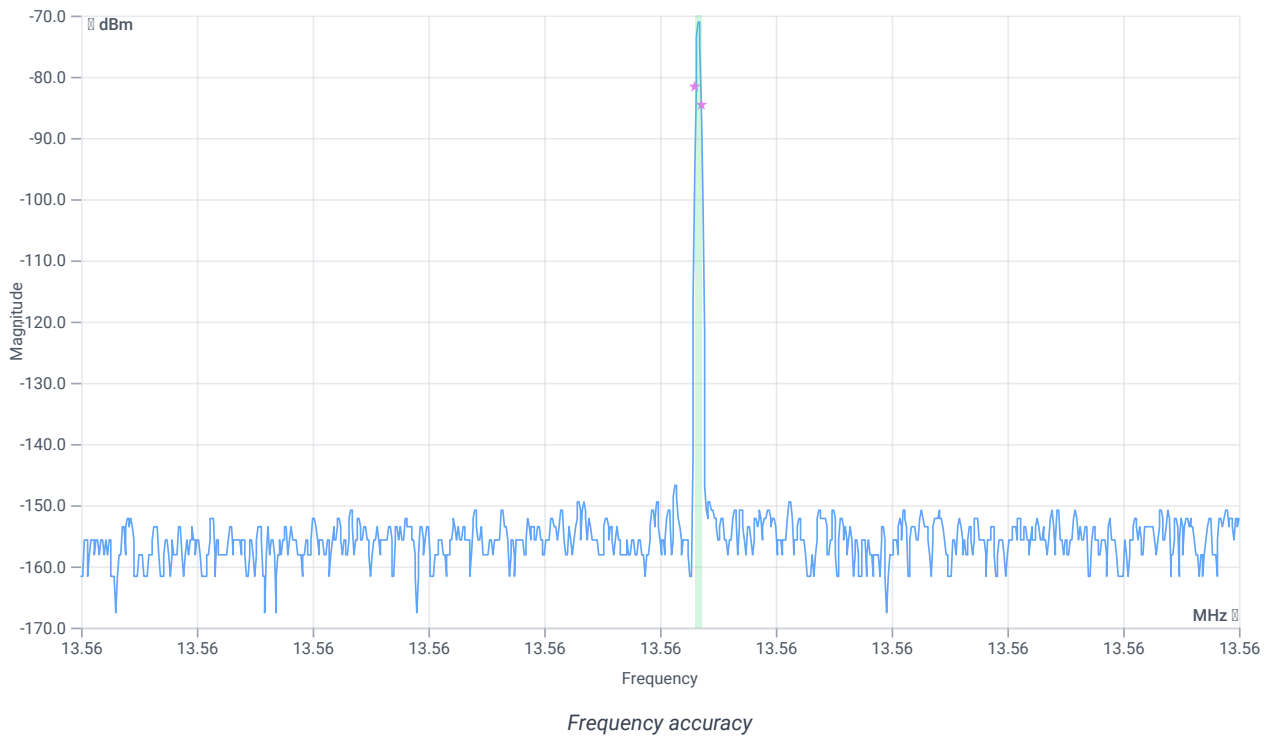
RESULT Temperature [°C]: 20 | Voltage [V]: 4.14

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	0.000	MHz	INFO
T1 99%	---	---	13.5601	MHz	INFO
T2 99%	---	---	13.5601	MHz	INFO
F0	---	---	13.560109	MHz	INFO
Ftarget	---	---	13.560000	MHz	INFO
Foffset	---	---	0.000109	MHz	INFO
Foffset	---	---	0.109	kHz	INFO
Foffset (abs)		100	8.04	ppm	PASS



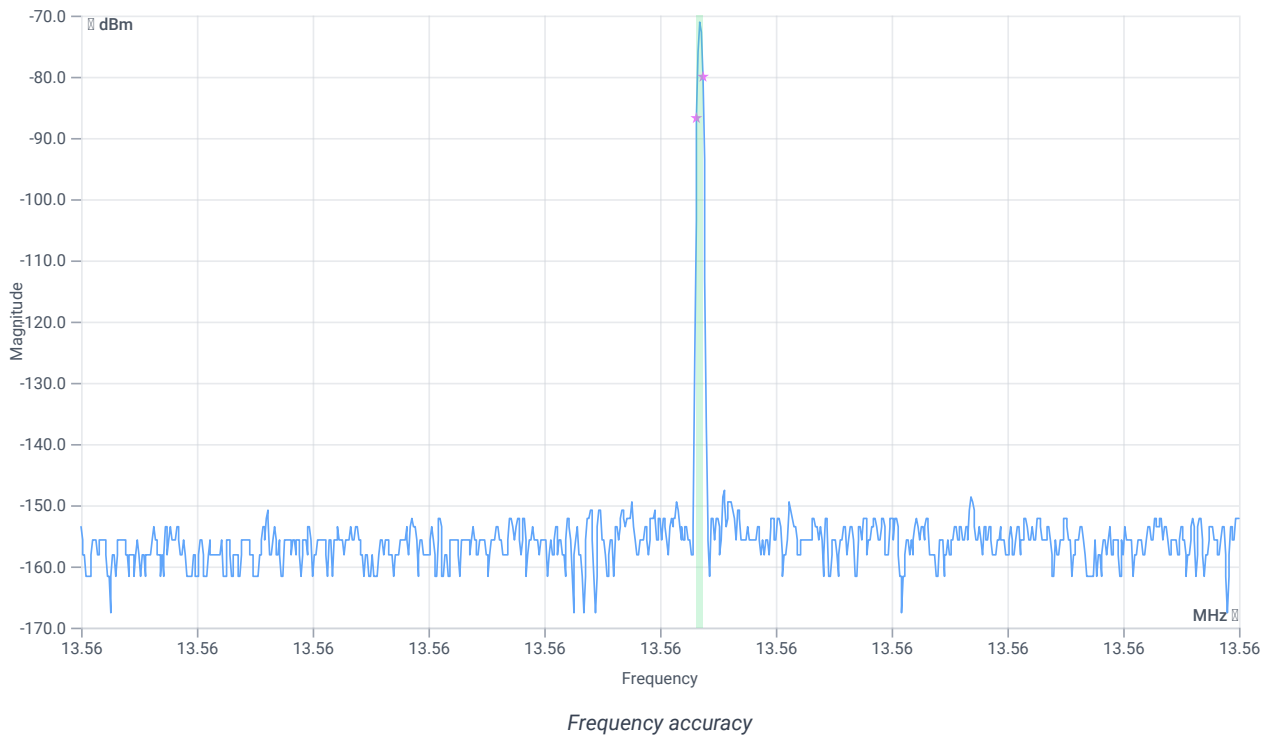
RESULT Temperature [°C]: -20 | Voltage [V]: 3.6

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	0.000	MHz	INFO
T1 99%	---	---	13.5601	MHz	INFO
T2 99%	---	---	13.5602	MHz	INFO
F0	---	---	13.560137	MHz	INFO
Ftarget	---	---	13.560000	MHz	INFO
Foffset	---	---	0.000137	MHz	INFO
Foffset	---	---	0.137	kHz	INFO
Foffset (abs)		100	10.12	ppm	PASS



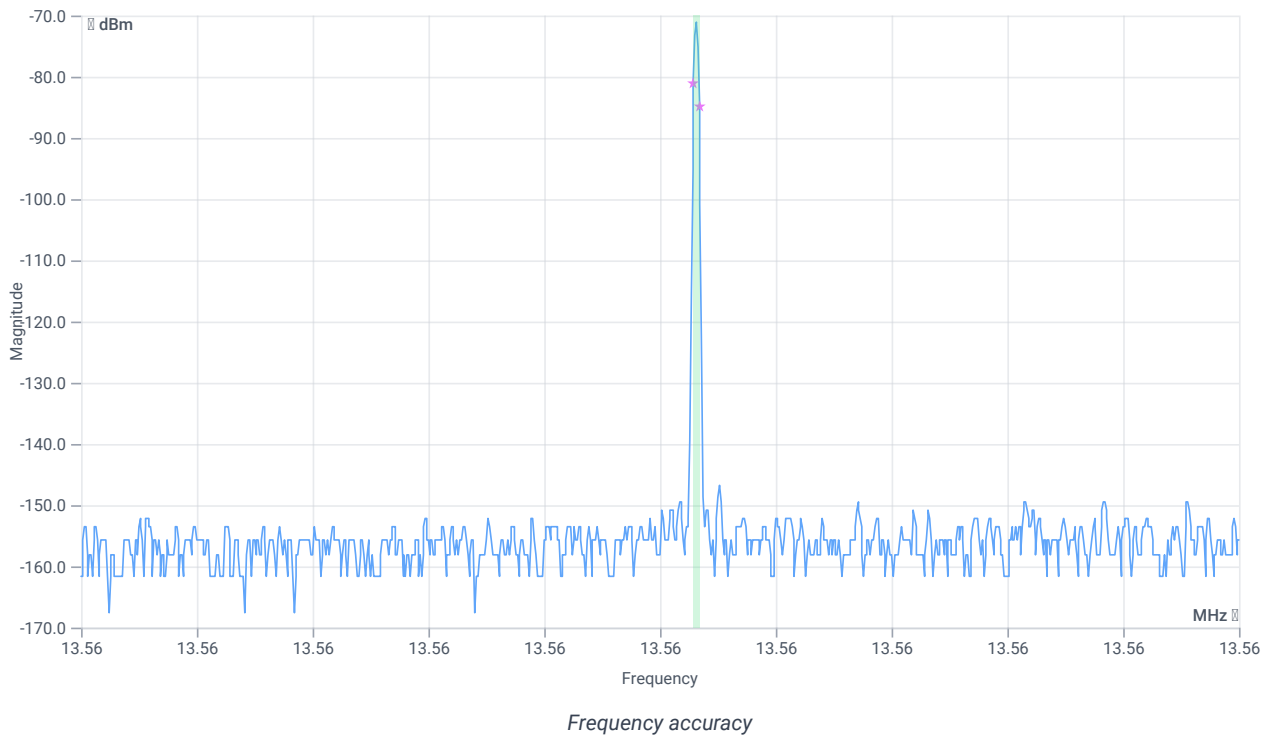
RESULT Temperature [°C]: -10 | Voltage [V]: 3.6

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	0.000	MHz	INFO
T1 99%	---	---	13.5602	MHz	INFO
T2 99%	---	---	13.5602	MHz	INFO
F0	---	---	13.560167	MHz	INFO
Ftarget	---	---	13.560000	MHz	INFO
Foffset	---	---	0.000167	MHz	INFO
Foffset	---	---	0.167	kHz	INFO
Foffset (abs)		100	12.31	ppm	PASS



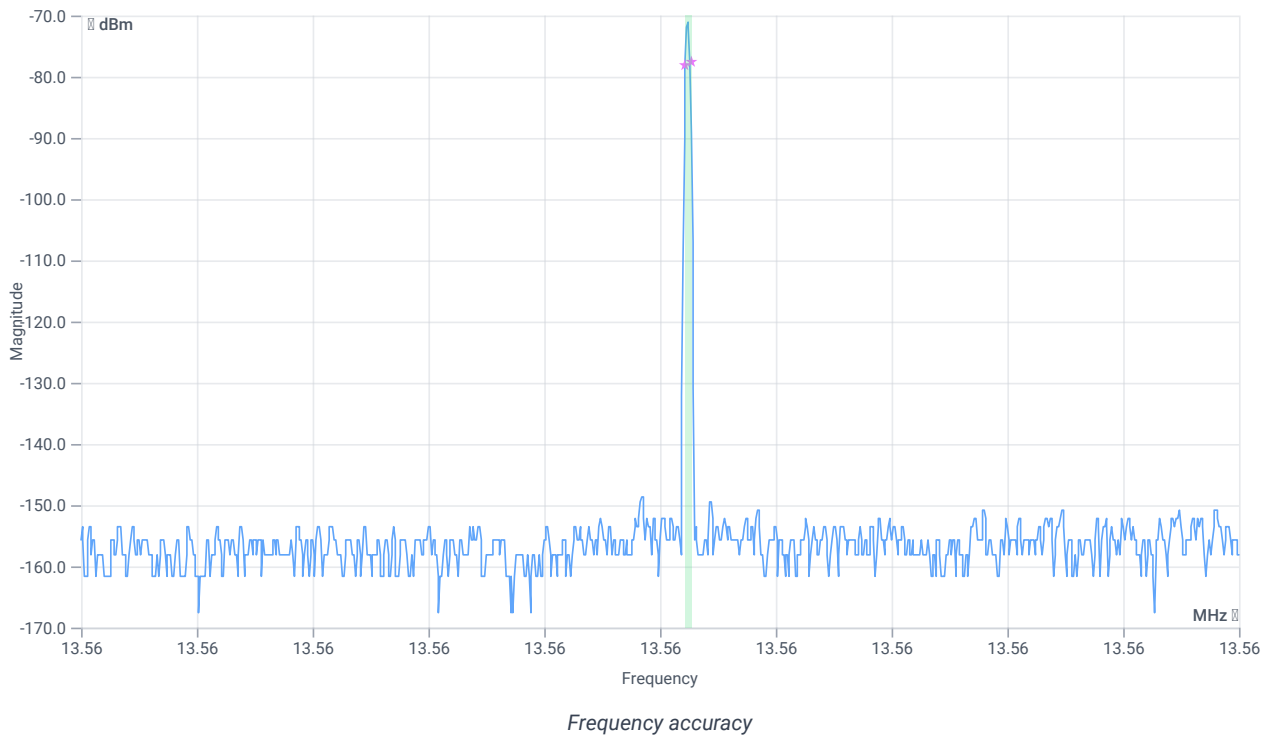
RESULT Temperature [°C]: 0 | Voltage [V]: 3.6

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	0.000	MHz	INFO
T1 99%	---	---	13.5602	MHz	INFO
T2 99%	---	---	13.5602	MHz	INFO
F0	---	---	13.560173	MHz	INFO
Ftarget	---	---	13.560000	MHz	INFO
Foffset	---	---	0.000173	MHz	INFO
Foffset	---	---	0.173	kHz	INFO
Foffset (abs)		100	12.79	ppm	PASS



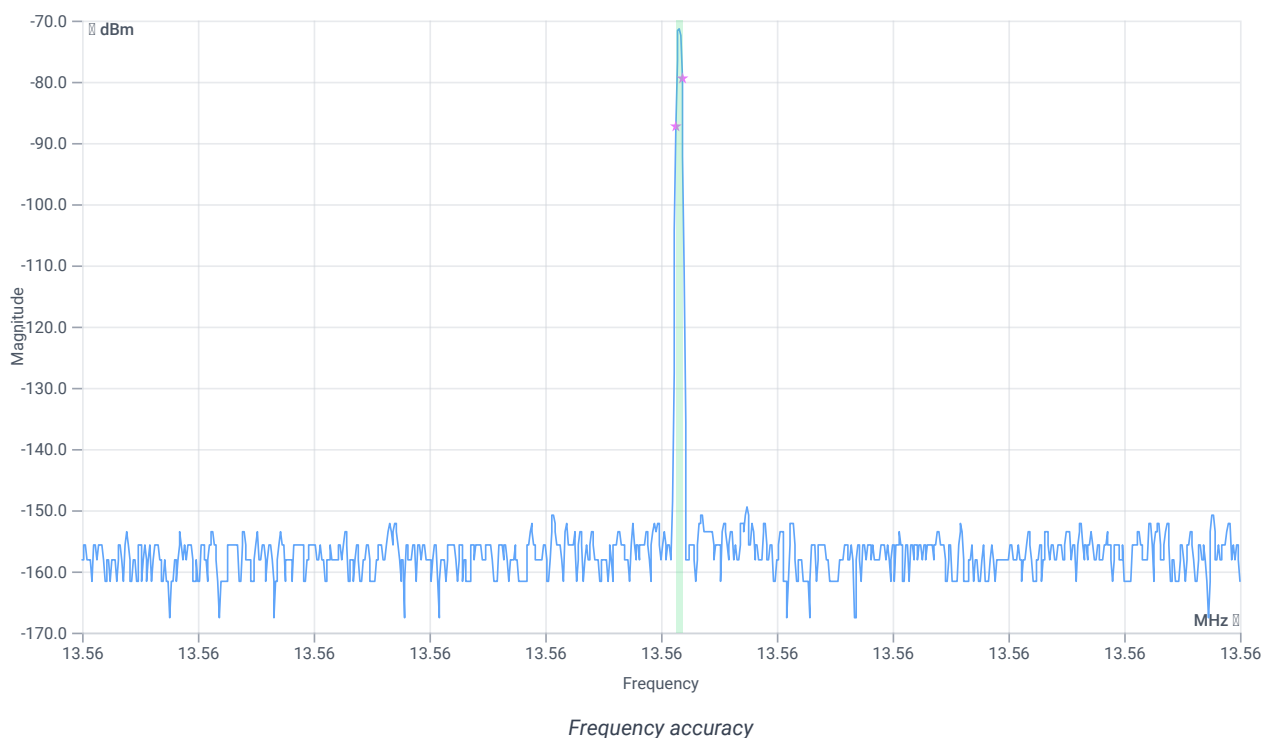
RESULT Temperature [°C]: 10 | Voltage [V]: 3.6

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	0.000	MHz	INFO
T1 99%	---	---	13.5601	MHz	INFO
T2 99%	---	---	13.5602	MHz	INFO
F0	---	---	13.560157	MHz	INFO
Ftarget	---	---	13.560000	MHz	INFO
Foffset	---	---	0.000157	MHz	INFO
Foffset	---	---	0.157	kHz	INFO
Foffset (abs)		100	11.56	ppm	PASS



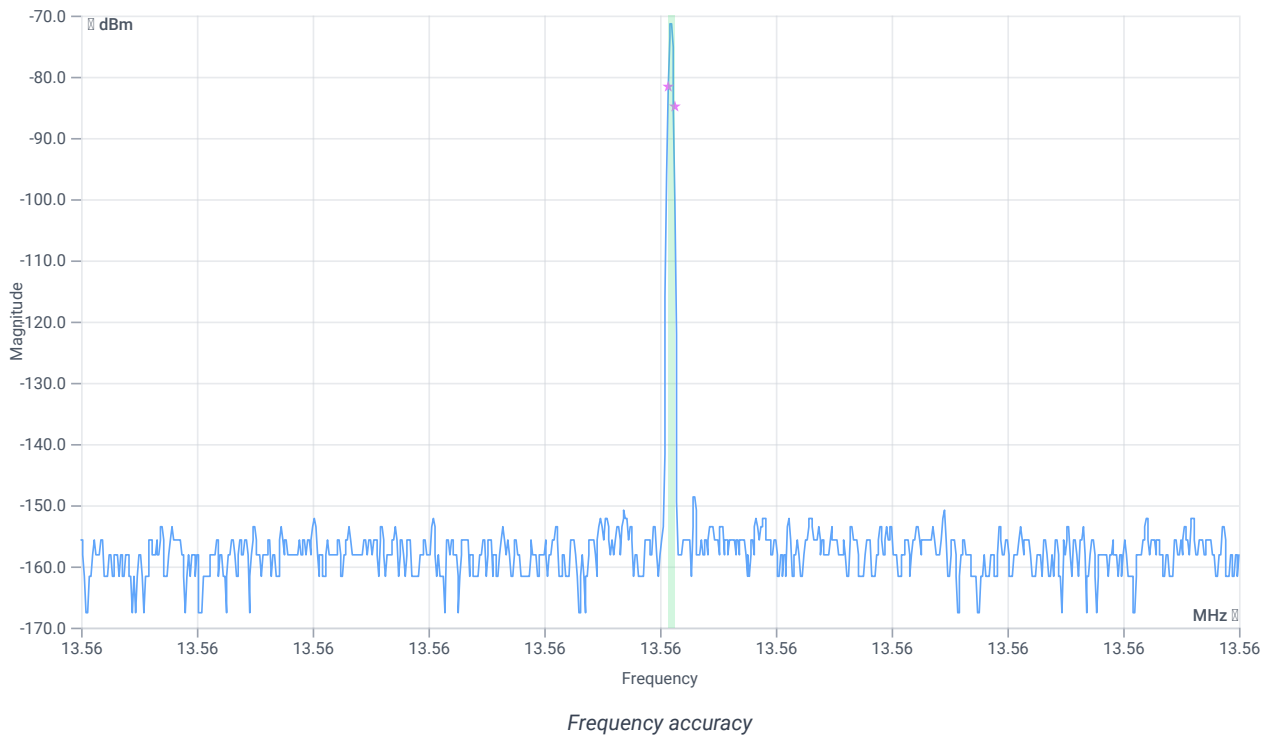
RESULT Temperature [°C]: 20 | Voltage [V]: 3.6

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	0.000	MHz	INFO
T1 99%	---	---	13.5601	MHz	INFO
T2 99%	---	---	13.5601	MHz	INFO
F0	---	---	13.560120	MHz	INFO
Ftarget	---	---	13.560000	MHz	INFO
Foffset	---	---	0.000120	MHz	INFO
Foffset	---	---	0.120	kHz	INFO
Foffset (abs)		100	8.84	ppm	PASS



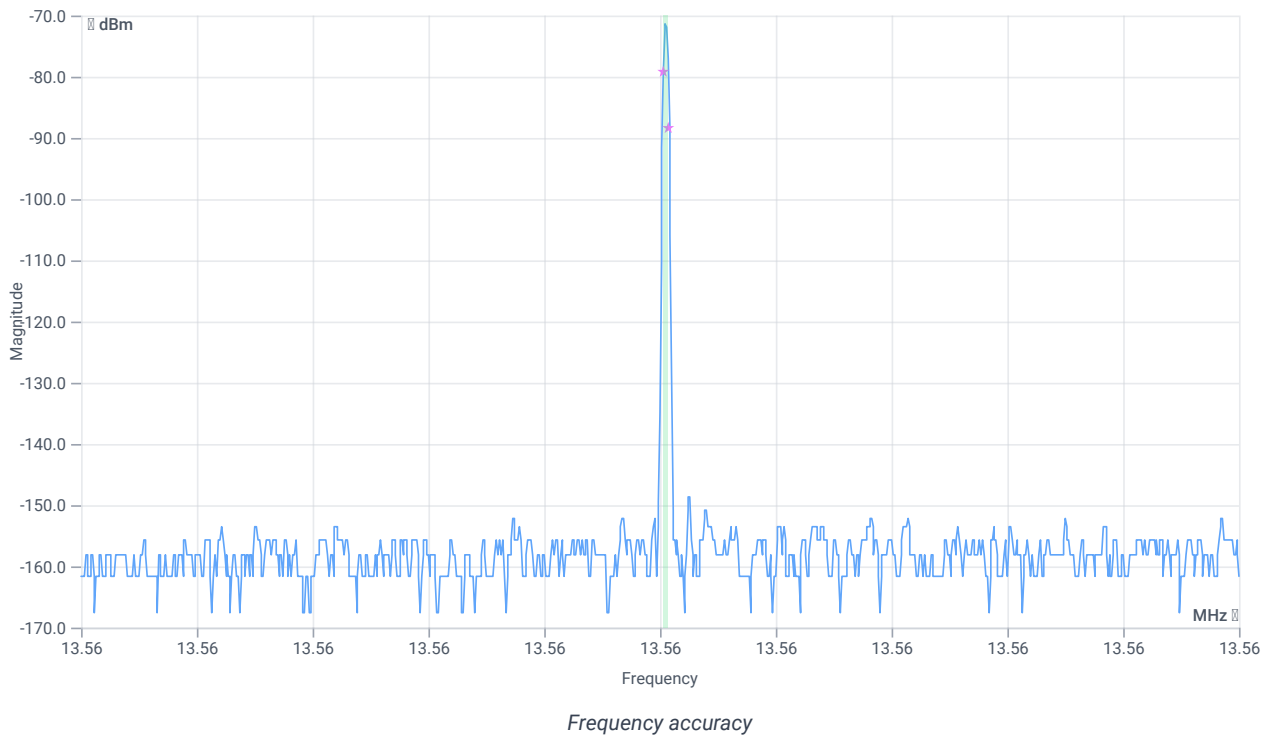
RESULT Temperature [°C]: 30 | Voltage [V]: 3.6

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	0.000	MHz	INFO
T1 99%	---	---	13.5601	MHz	INFO
T2 99%	---	---	13.5601	MHz	INFO
F0	---	---	13.560079	MHz	INFO
Ftarget	---	---	13.560000	MHz	INFO
Foffset	---	---	0.000079	MHz	INFO
Foffset	---	---	0.079	kHz	INFO
Foffset (abs)		100	5.82	ppm	PASS



RESULT Temperature [°C]: 40 | Voltage [V]: 3.6

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	0.000	MHz	INFO
T1 99%	---	---	13.5600	MHz	INFO
T2 99%	---	---	13.5601	MHz	INFO
F0	---	---	13.560047	MHz	INFO
Ftarget	---	---	13.560000	MHz	INFO
Foffset	---	---	0.000047	MHz	INFO
Foffset	---	---	0.047	kHz	INFO
Foffset (abs)		100	3.46	ppm	PASS



RESULT Temperature [°C]: 50 | Voltage [V]: 3.6

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	0.000	MHz	INFO
T1 99%	---	---	13.5600	MHz	INFO
T2 99%	---	---	13.5600	MHz	INFO
F0	---	---	13.560026	MHz	INFO
Ftarget	---	---	13.560000	MHz	INFO
Foffset	---	---	0.000026	MHz	INFO
Foffset	---	---	0.026	kHz	INFO
Foffset (abs)		100	1.89	ppm	PASS

Verdict

INFO

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