

Radiated test results

No.24-1-0040201T001_TR1-A201-R01

February 24, 2025

Test Standard(s)

Systems FCC.ISED - NI

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Authorized

Al-Amin Hossain

Testing Manager
Radio Labs

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Systems FCC.ISED # Frequency stability over temperature & voltage ~ RADAR Active 57 - 61.56 GHz 57000-61560 MHz

References

TC start	16.10.2024 09:08:06
Ambit temp (test rack) [°C] humidity [rel%]	not enabled not enabled
System version	5.0.8.7
Standard Version	Systems FCC.ISED NI
Method	
Description	Systems FCC ISED Freq stability over temp/volt
Information	

Equipment

Signal analyzer,Rohde&Schwarz,FSW-67,1312.8000K67/104023,6.00
Power supply,HEWLETT-PACKARD,E3632A,0,1.2-5.0-1.0
Climatic box,Voetsch,VT4002,04682,LAN

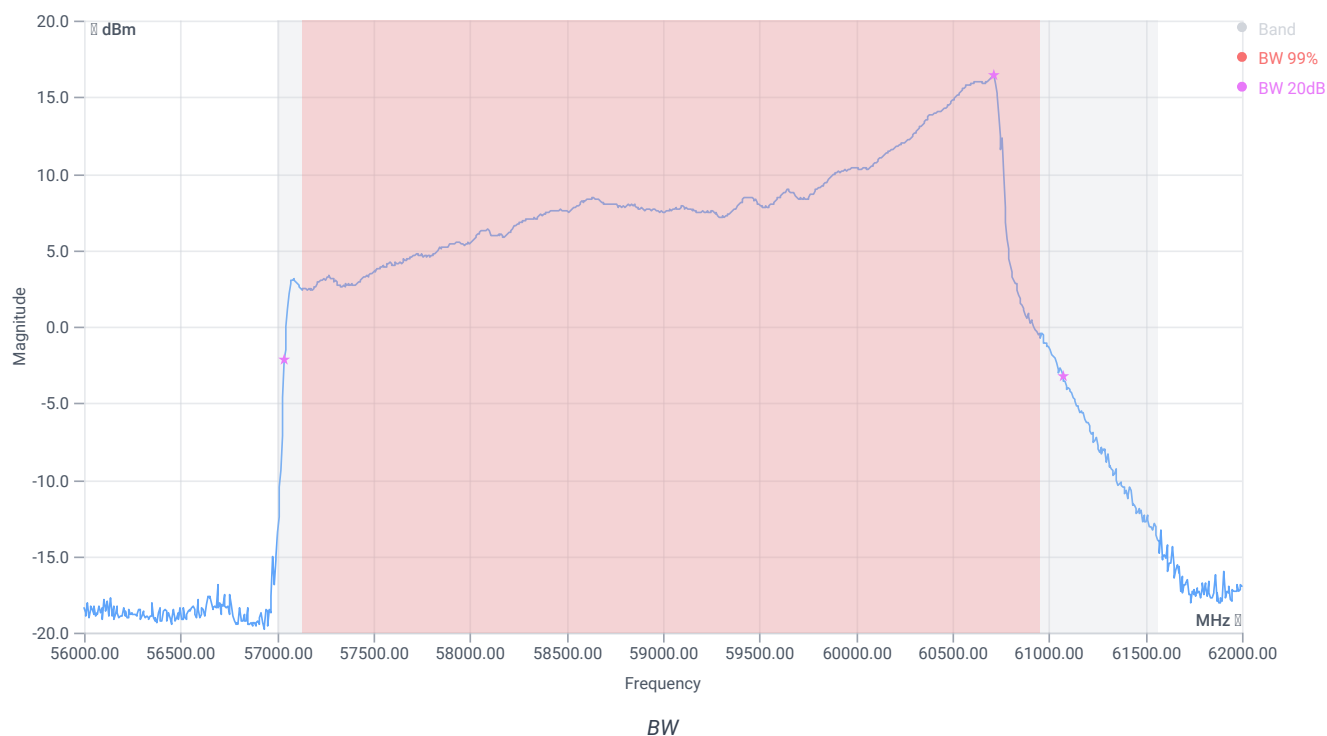
Test Parameter

EUT port	
Temperature	var
Voltage	var
Auto control enabled power supply Climatic Box	Yes Yes
Full path type	
Full path name	
Switch bits	

Test for temperature[°C]: 20 | voltage [V]: 18

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3825.956	MHz	INFO
T1 99%	57000	---	57127.8813	MHz	PASS
T2 99%	---	61560	60953.8373	MHz	PASS

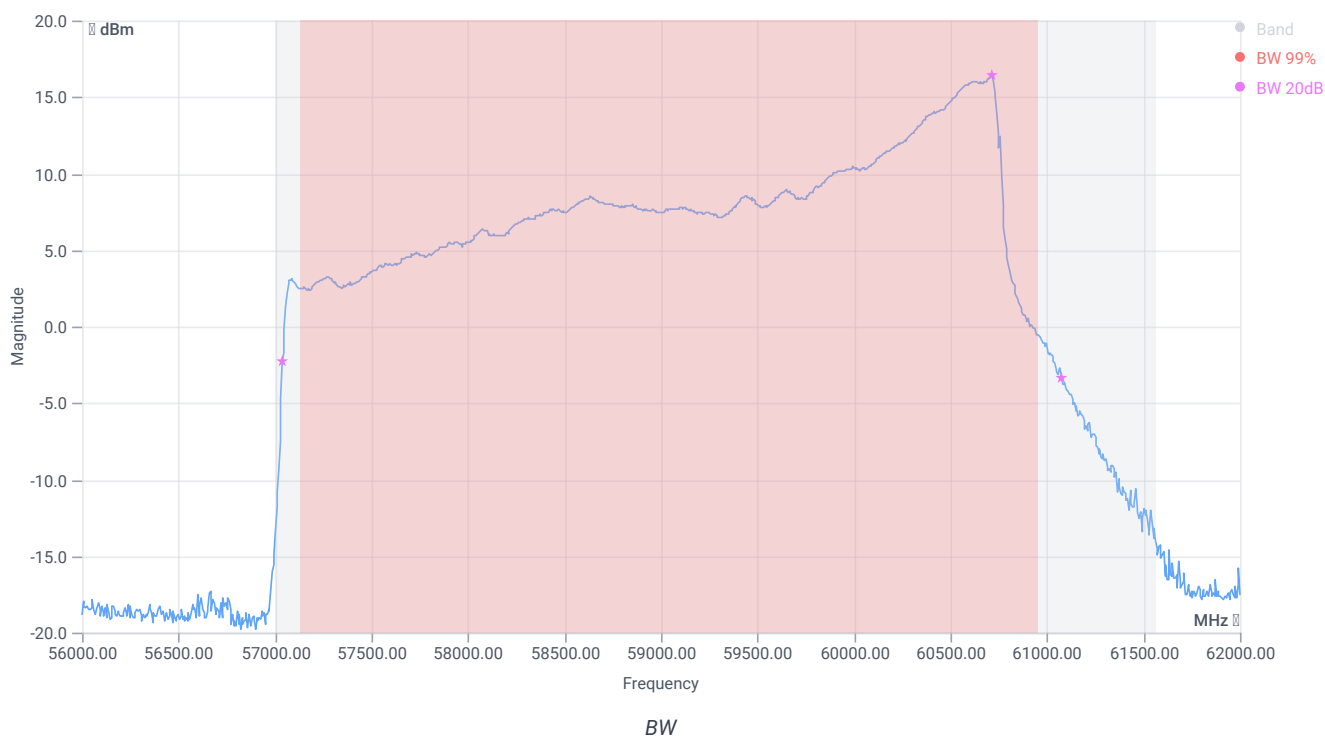
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4032	MHz	INFO
Reference freq.	---	---	60710	MHz	INFO
T1 20dB	57000	---	57038.0000	MHz	PASS
T2 20dB	---	61560	61070.0000	MHz	PASS

Test for temperature[°C]: 20 | voltage [V]: 15.3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3826.390	MHz	INFO
T1 99%	57000	---	57127.9581	MHz	PASS
T2 99%	---	61560	60954.3485	MHz	PASS

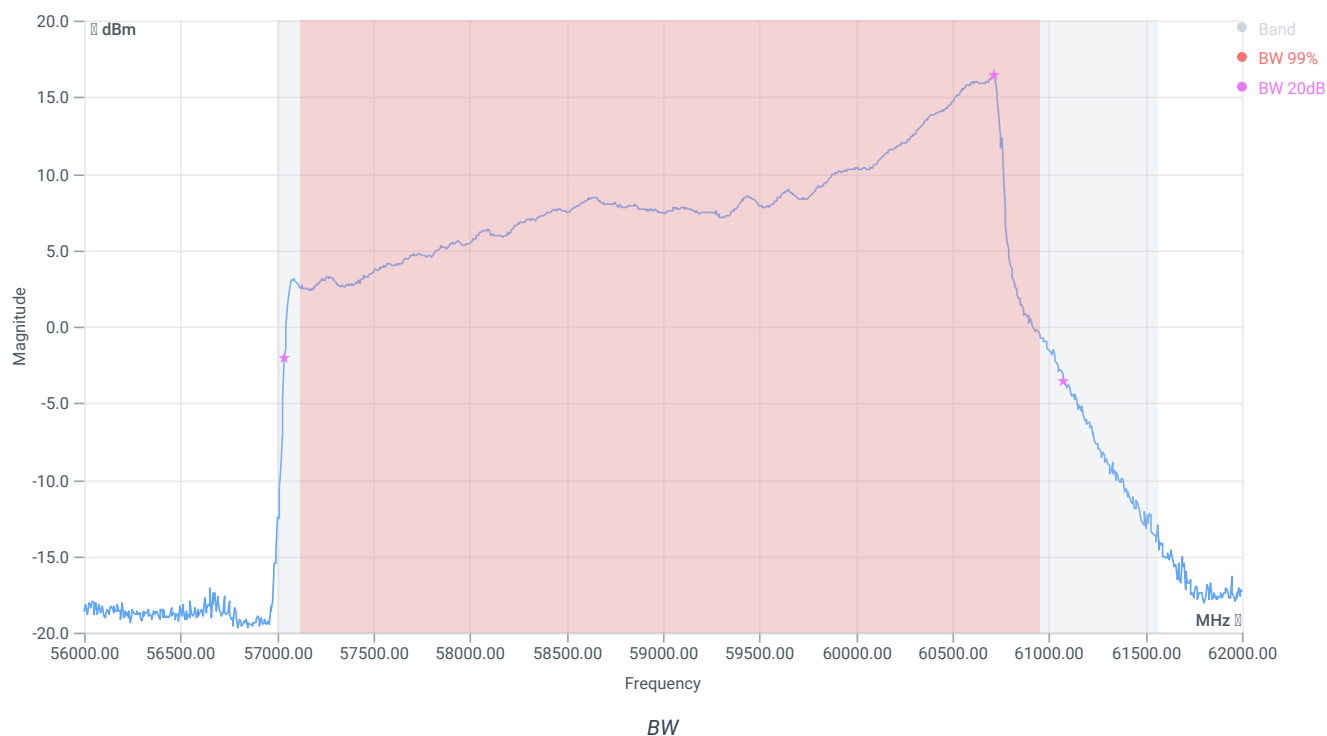
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4038	MHz	INFO
Reference freq.	---	---	60710	MHz	INFO
T1 20dB	57000	---	57038.0000	MHz	PASS
T2 20dB	---	61560	61076.0000	MHz	PASS

Test for temperature[°C]: 20 | voltage [V]: 20.7

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3829.608	MHz	INFO
T1 99%	57000	---	57126.4357	MHz	PASS
T2 99%	---	61560	60956.0434	MHz	PASS

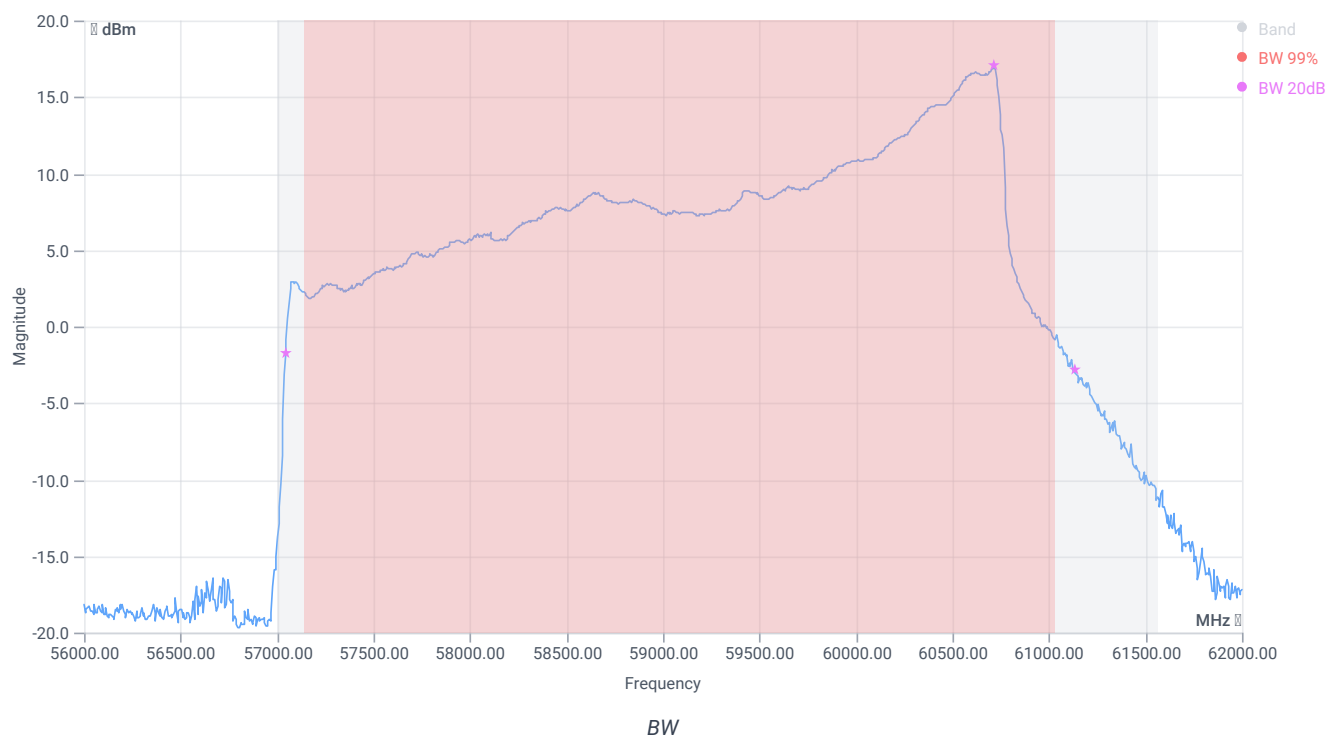
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4038	MHz	INFO
Reference freq.	---	---	60710	MHz	INFO
T1 20dB	57000	---	57038.0000	MHz	PASS
T2 20dB	---	61560	61076.0000	MHz	PASS

Test for temperature[°C]: -20 | voltage [V]: 18

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3886.374	MHz	INFO
T1 99%	57000	---	57141.6813	MHz	PASS
T2 99%	---	61560	61028.0549	MHz	PASS

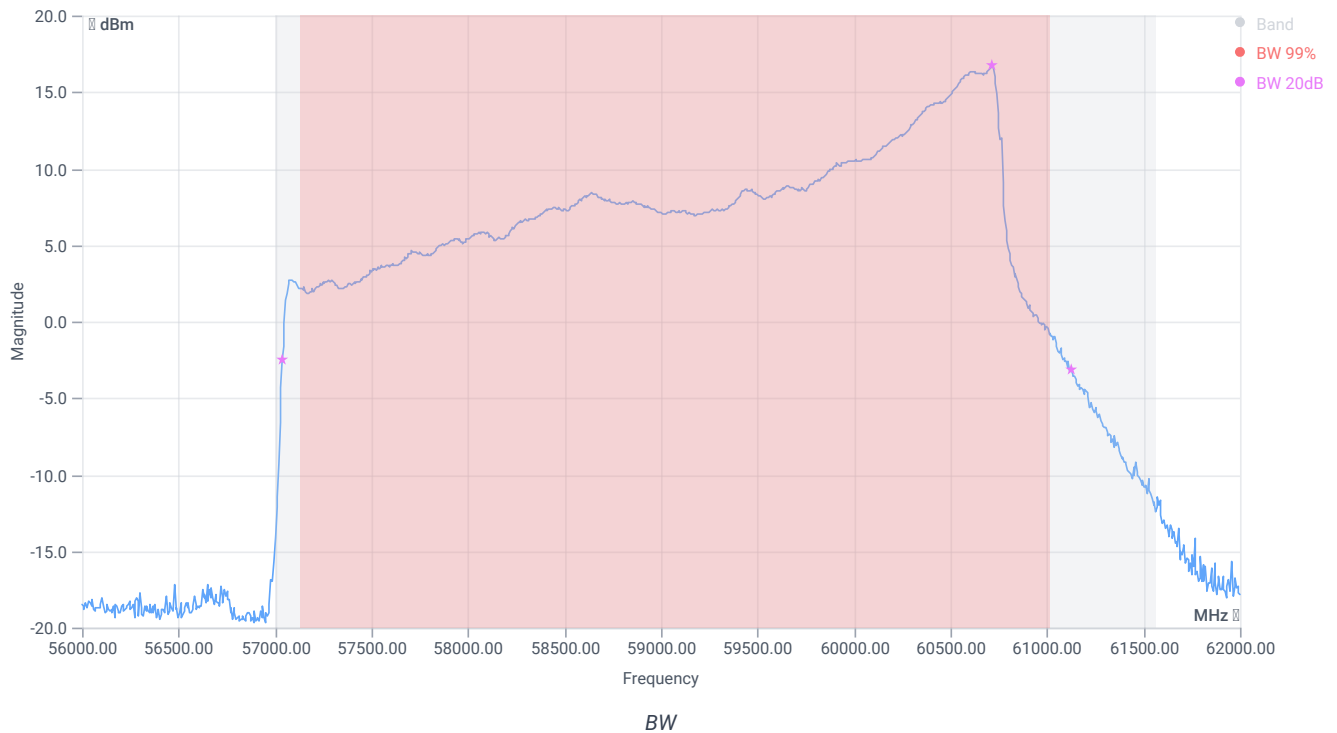
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4086	MHz	INFO
Reference freq.	---	---	60716	MHz	INFO
T1 20dB	57000	---	57044.0000	MHz	PASS
T2 20dB	---	61560	61130.0000	MHz	PASS

Test for temperature[°C]: -10 | voltage [V]: 18

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3876.868	MHz	INFO
T1 99%	57000	---	57135.1995	MHz	PASS
T2 99%	---	61560	61012.0679	MHz	PASS

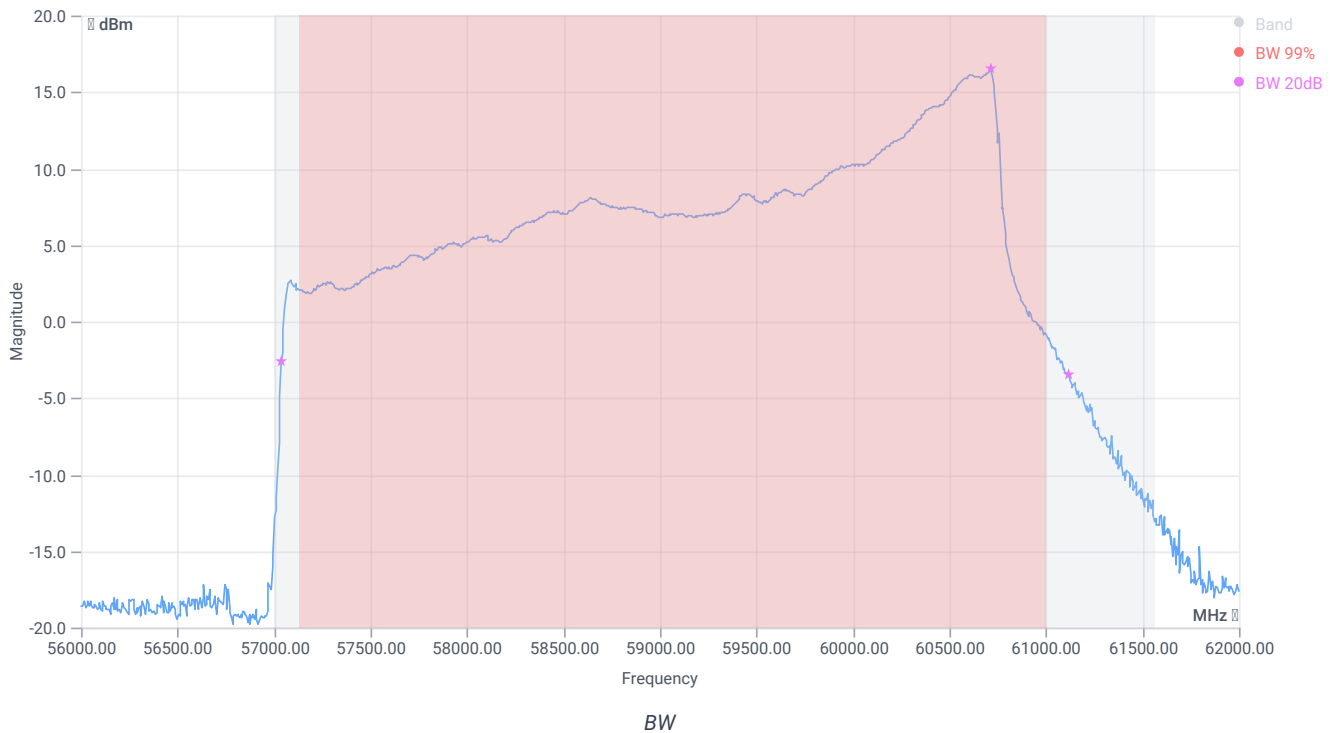
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4086	MHz	INFO
Reference freq.	---	---	60716	MHz	INFO
T1 20dB	57000	---	57038.0000	MHz	PASS
T2 20dB	---	61560	61124.0000	MHz	PASS

Test for temperature[°C]: 0 | voltage [V]: 18

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3863.861	MHz	INFO
T1 99%	57000	---	57133.7094	MHz	PASS
T2 99%	---	61560	60997.5700	MHz	PASS

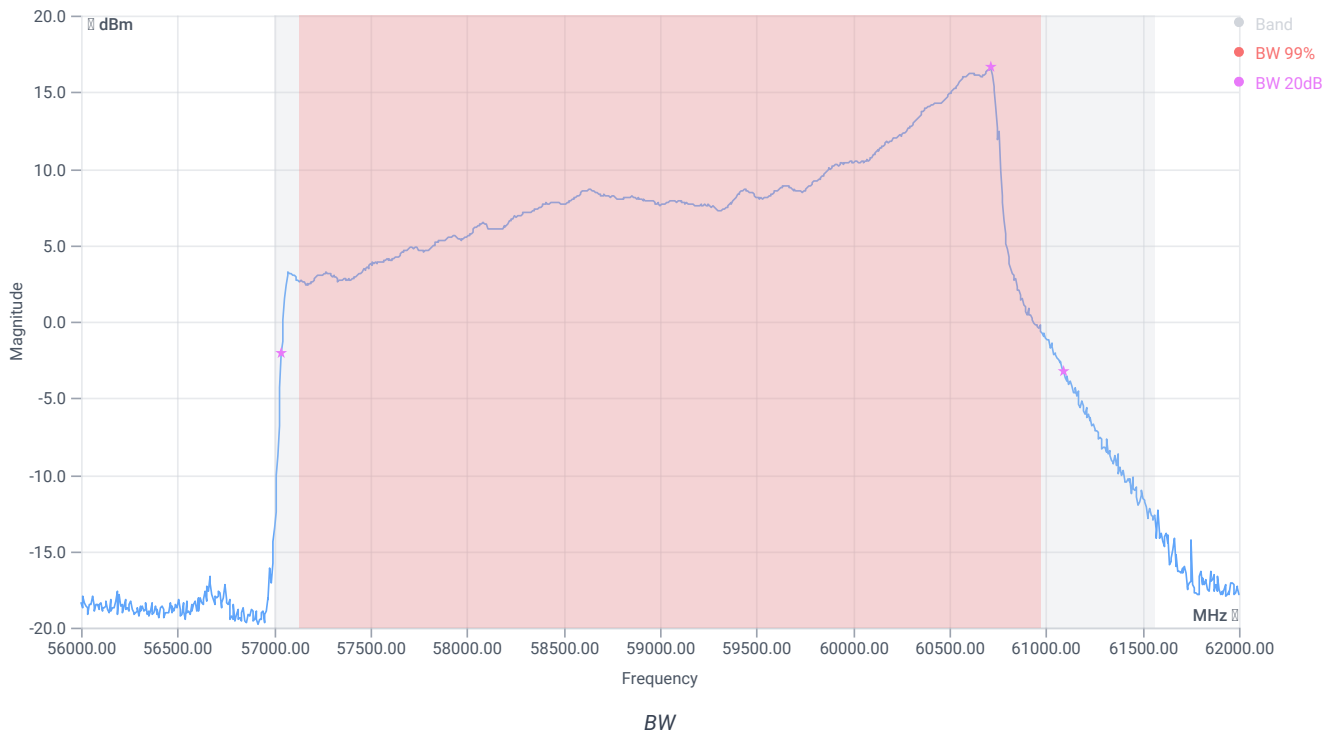
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4080	MHz	INFO
Reference freq.	---	---	60710	MHz	INFO
T1 20dB	57000	---	57038.0000	MHz	PASS
T2 20dB	---	61560	61118.0000	MHz	PASS

Test for temperature[°C]: 10 | voltage [V]: 18

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3842.753	MHz	INFO
T1 99%	57000	---	57128.0357	MHz	PASS
T2 99%	---	61560	60970.7882	MHz	PASS

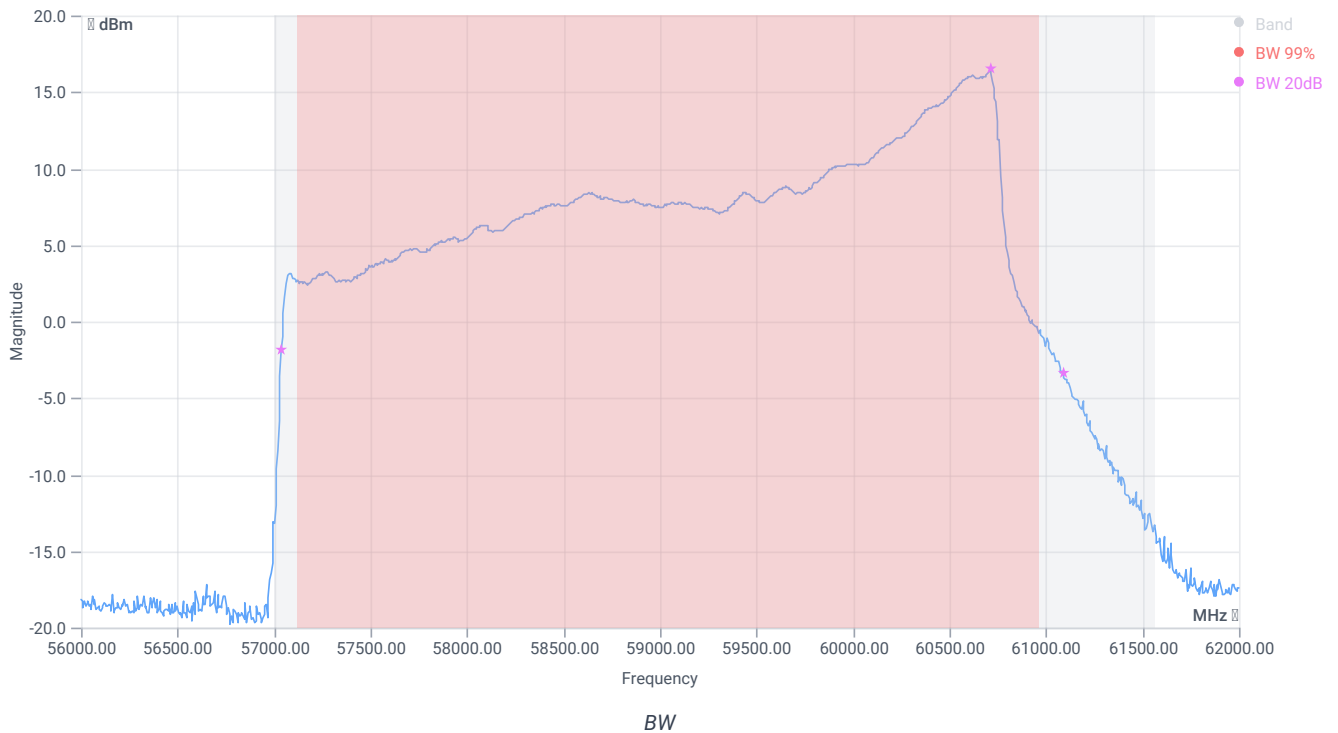
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4056	MHz	INFO
Reference freq.	---	---	60710	MHz	INFO
T1 20dB	57000	---	57038.0000	MHz	PASS
T2 20dB	---	61560	61094.0000	MHz	PASS

Test for temperature[°C]: 20 | voltage [V]: 18

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3836.178	MHz	INFO
T1 99%	57000	---	57124.7550	MHz	PASS
T2 99%	---	61560	60960.9332	MHz	PASS

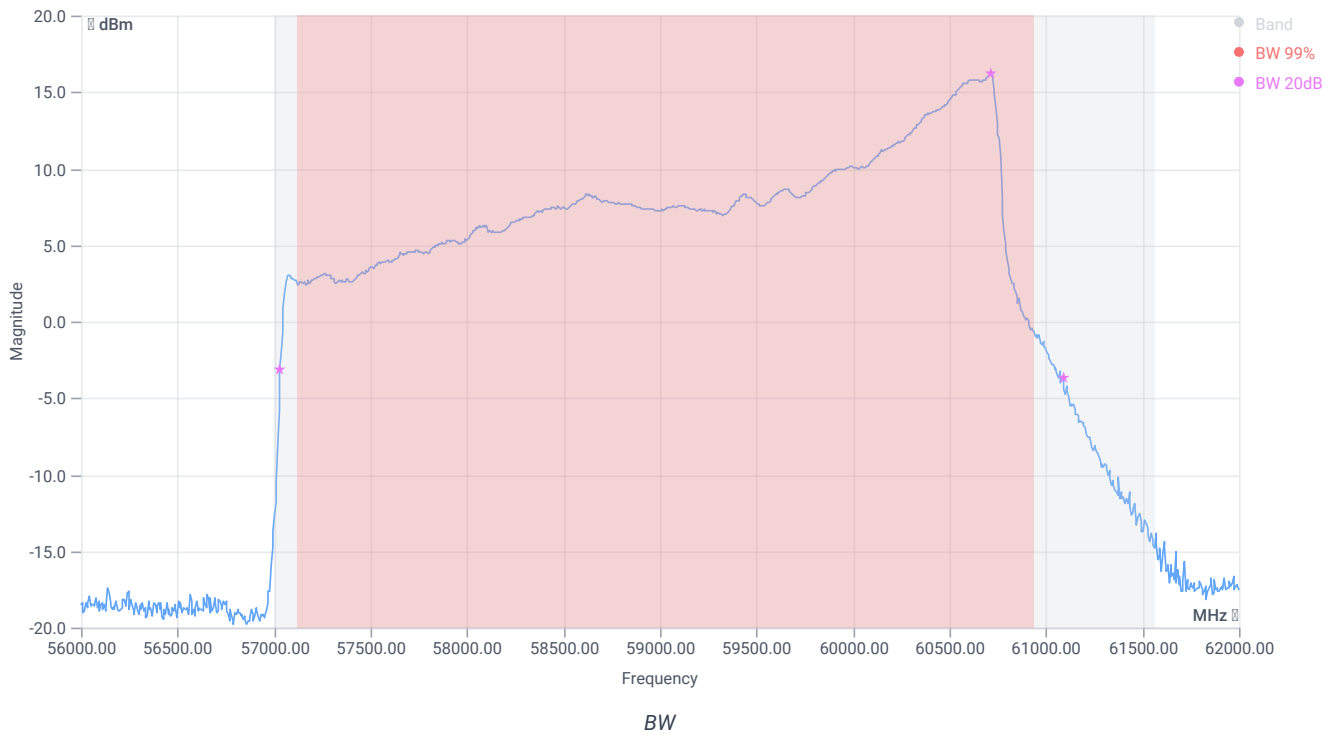
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4050	MHz	INFO
Reference freq.	---	---	60710	MHz	INFO
T1 20dB	57000	---	57038.0000	MHz	PASS
T2 20dB	---	61560	61088.0000	MHz	PASS

Test for temperature[°C]: 30 | voltage [V]: 18

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3820.252	MHz	INFO
T1 99%	57000	---	57120.4238	MHz	PASS
T2 99%	---	61560	60940.6755	MHz	PASS

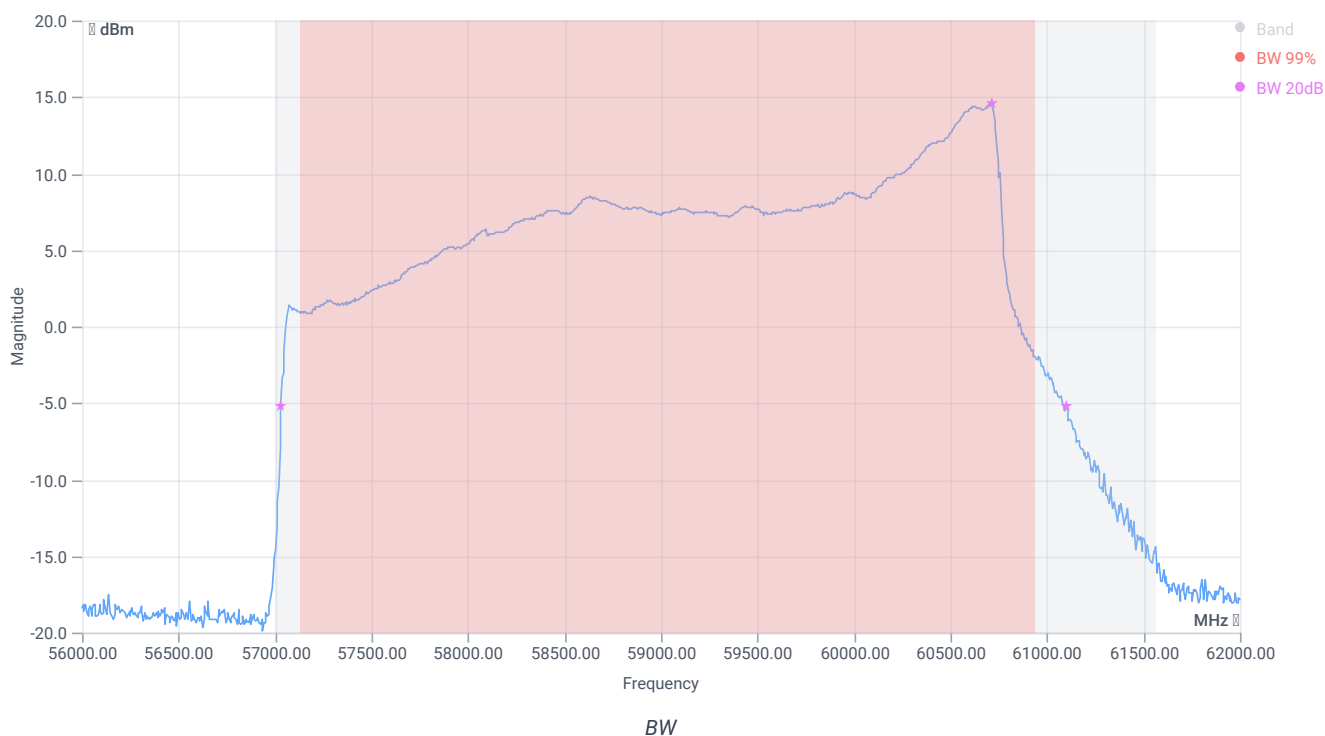
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4056	MHz	INFO
Reference freq.	---	---	60716	MHz	INFO
T1 20dB	57000	---	57032.0000	MHz	PASS
T2 20dB	---	61560	61088.0000	MHz	PASS

Test for temperature[°C]: 40 | voltage [V]: 18

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3802.540	MHz	INFO
T1 99%	57000	---	57133.3822	MHz	PASS
T2 99%	---	61560	60935.9225	MHz	PASS

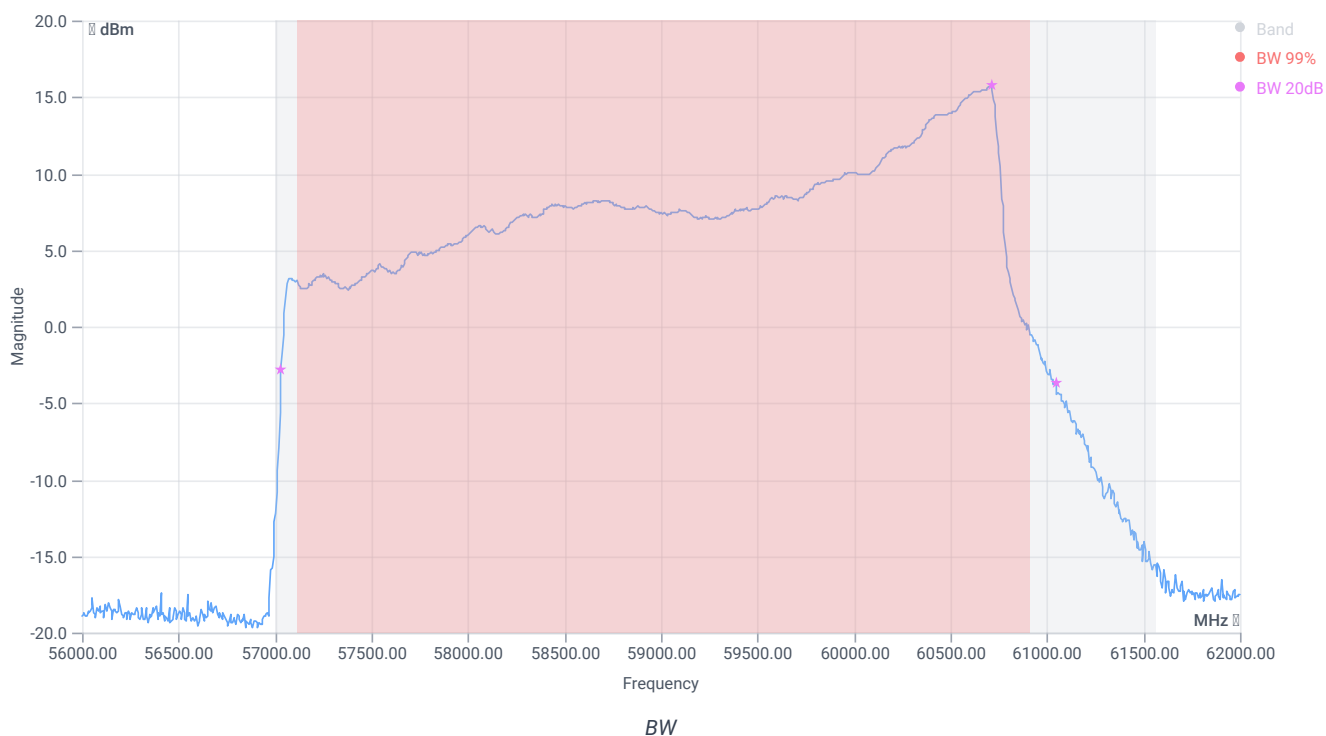
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4068	MHz	INFO
Reference freq.	---	---	60710	MHz	INFO
T1 20dB	57000	---	57032.0000	MHz	PASS
T2 20dB	---	61560	61100.0000	MHz	PASS

Test for temperature[°C]: 50 | voltage [V]: 18

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3799.617	MHz	INFO
T1 99%	57000	---	57114.6027	MHz	PASS
T2 99%	---	61560	60914.2193	MHz	PASS

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4014	MHz	INFO
Reference freq.	---	---	60710	MHz	INFO
T1 20dB	57000	---	57032.0000	MHz	PASS
T2 20dB	---	61560	61046.0000	MHz	PASS

Verdict

PASS

Systems FCC.ISED # Bandwidth 20dB ~ RADAR Active 57 - 61.56 GHz 57000-61560 MHz

References

TC start	16.10.2024 08:55:02
Ambit temp (test rack) [°C] humidity [rel%]	not enabled not enabled
System version	5.0.8.7
Standard Version	Systems FCC.ISED NI
Method	
Description	Systems FCC ISED Bandwidth 20dB
Information	

Equipment

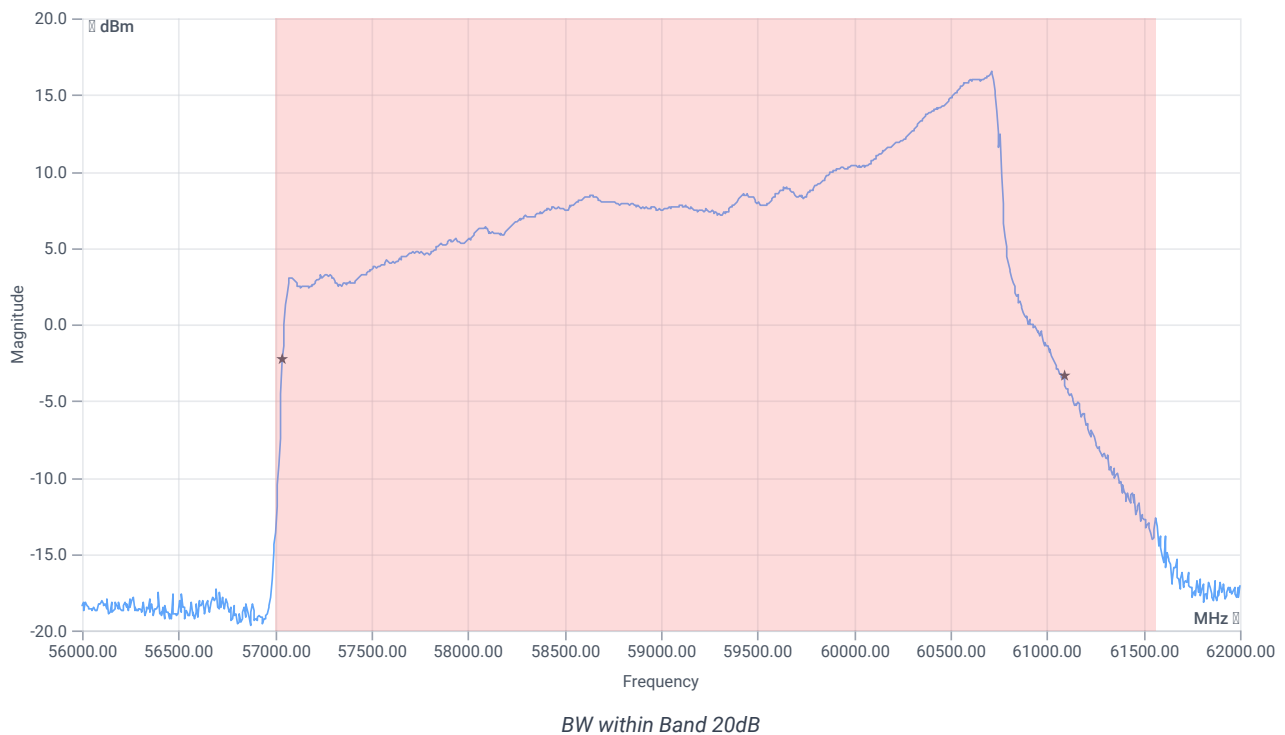
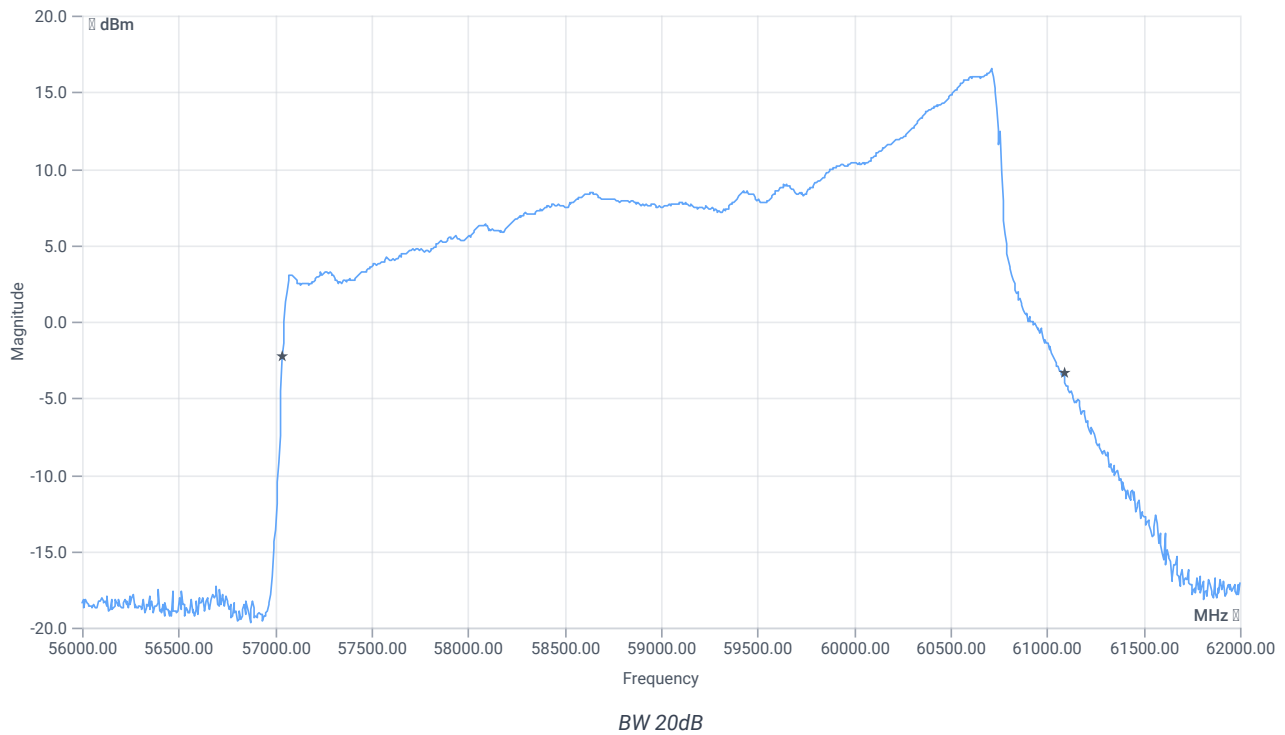
Signal analyzer,Rohde&Schwarz,FSW-67,1312.8000K67/104023,6.00
Power supply,HEWLETT-PACKARD,E3632A,0,1.2-5.0-1.0
Climatic box,Voetsch,VT4002,04682,LAN

Test Parameter

EUT port	1
Temperature	nom
Voltage	nom
Auto control enabled power supply Climatic Box	Yes Yes
Full path type	
Full path name	
Switch bits	

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	4050	MHz	INFO
T1 20dB	57000.000000	---	57038.0000	MHz	PASS

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T2 20dB	--	61560.000000	61088.0000	MHz	PASS

Verdict

PASS

Systems FCC.ISED # Bandwidth 99pct ~ RADAR Active 57 - 61.56 GHz 57000-61560 MHz

References

TC start	16.10.2024 08:31:16
Ambit temp (test rack) [°C] humidity [rel%]	not enabled not enabled
System version	5.0.8.7
Standard Version	Systems FCC.ISED NI
Method	
Description	Systems FCC ISED Bandwidth 99pct
Information	

Equipment

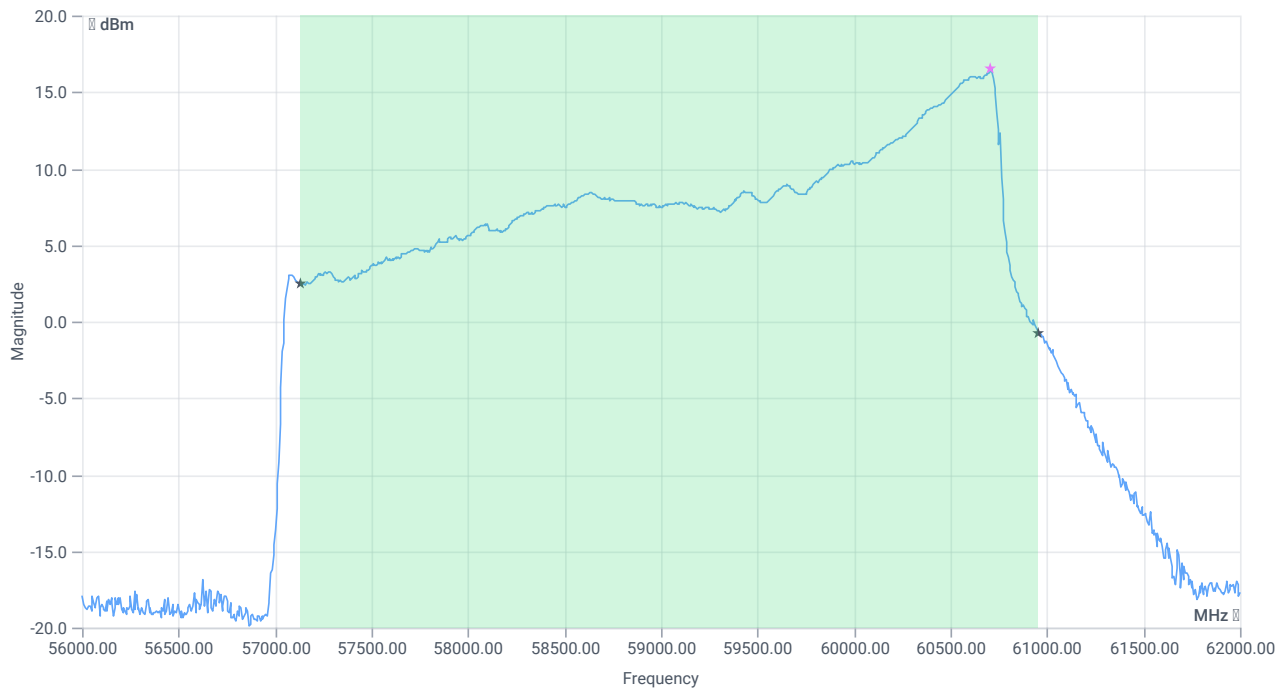
Signal analyzer,Rohde&Schwarz,FSW-67,1312.8000K67/104023,6.00
Power supply,HEWLETT-PACKARD,E3632A,0,1.2-5.0-1.0
Climatic box,Voetsch,VT4002,04682,LAN

Test Parameter

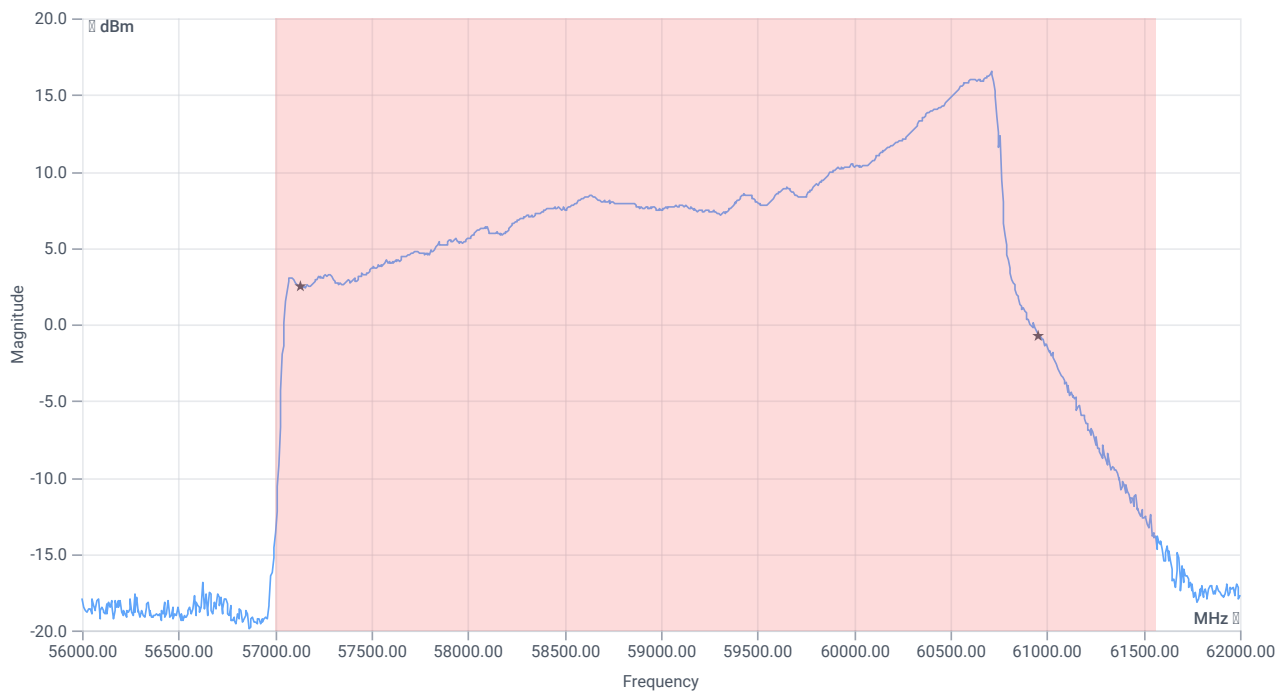
EUT port	1
Temperature	nom
Voltage	nom
Auto control enabled power supply Climatic Box	Yes Yes
Full path type	
Full path name	
Switch bits	

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-6.00 3.3 1
Start [MHz] Stop [MHz]	56000.000 62000.000
RBW [MHz] VBW [MHz]	50.000000 80.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	100000 1 1001 SWE



BW 99PCT



BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	3826.81	MHz	INFO
T1 99%	57000.00	---	57127.74	MHz	PASS

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T2 99%	---	61560.00	60954.54	MHz	PASS
Max value @ 60708.3 MHz	---	---	16.55	dBm	INFO

Verdict

PASS

- END OF DOCUMENT -