

Frequency Stability

No.1-5965/23-02-02_MR1

November 28, 2023

Test Standard(s)

Systems FCC - NI

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Authorized

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EUT Information

EUT DEFINITION

Manufacturer	Baumer
Type	R600V
Serial Number	700009971046
Setup Number	1.0
Version SW	NI
Version FW	NI
Version HW	NI
Comment 1	DUT1 - normal mode 5ms cycle time
Comment 2	
Temperature [°C] Min	-40
Temperature [°C] Nom	20
Temperature [°C] Max	70
Voltage [V] Min	9
Voltage [V] Nom	12
Voltage [V] Max	16

Frequency stability over temperature & voltage

References

TC start	27.11.2023 17:12:54
Ambit temp [°C] humidity [rel%]	not enabled not enabled
System version	4.7.1.4
Standard Version	Systems FCC NI
Method	
Description	Systems FCC Freq stability over temp/volt
Information	

Test Parameter

Switched Path	none
Temp Variation enabled Voltage Variation enabled	Yes Yes
Additional Information	

Equipment

Signal analyzer,Rohde&Schwarz,FSW-50,1331.5003K50/101332,5.20
Power supply,Agilent Technologies,N5767A,US14J1569P,B.00.06,REV:F
Climatic box,Voetsch,VT4002,58566046820010,NI

Test for Temperature[°C]: 20 | Voltage [V]: 12

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.00 42.51 0
Start [MHz] Stop [MHz]	121800.000 123200.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	7000 1 1401 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	964.155	MHz	INFO
T1 99%	116000	---	122028.8575	MHz	PASS
T2 99%	---	123000	122993.0126	MHz	PASS

Test for Temperature[°C]: 20 | Voltage [V]: 10.2

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.00 42.51 0
Start [MHz] Stop [MHz]	121800.000 123200.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	7000 1 1401 SWE



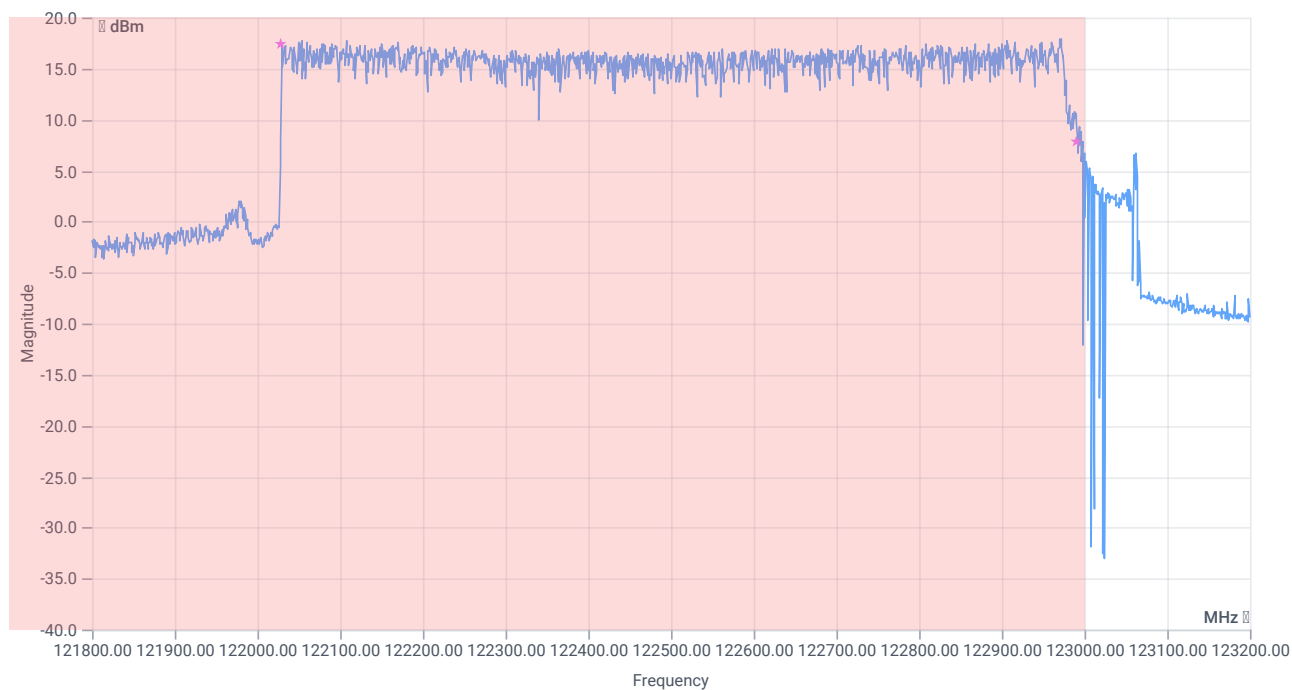
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	968.053	MHz	INFO
T1 99%	116000	---	122028.6153	MHz	PASS
T2 99%	---	123000	122996.6685	MHz	PASS

Test for Temperature[°C]: 20 | Voltage [V]: 13.8

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.00 42.51 0
Start [MHz] Stop [MHz]	121800.000 123200.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	7000 1 1401 SWE



Frequency stability

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	961.432	MHz	INFO
T1 99%	116000	---	122028.9977	MHz	PASS
T2 99%	---	123000	122990.4295	MHz	PASS

Test for Temperature[°C]: -20 | Voltage [V]: 12

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.00 42.51 0
Start [MHz] Stop [MHz]	121800.000 123200.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	7000 1 1401 SWE



Frequency stability

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	974.549	MHz	INFO
T1 99%	116000	---	122016.9818	MHz	PASS
T2 99%	---	123000	122991.5307	MHz	PASS

Test for Temperature[°C]: -10 | Voltage [V]: 12

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.00 42.51 0
Start [MHz] Stop [MHz]	121800.000 123200.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	7000 1 1401 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	975.119	MHz	INFO
T1 99%	116000	---	122018.9867	MHz	PASS
T2 99%	---	123000	122994.1061	MHz	PASS

Test for Temperature[°C]: 0 | Voltage [V]: 12

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.00 42.51 0
Start [MHz] Stop [MHz]	121800.000 123200.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	7000 1 1401 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	969.360	MHz	INFO
T1 99%	116000	---	122026.3306	MHz	PASS
T2 99%	---	123000	122995.6906	MHz	PASS

Test for Temperature[°C]: 10 | Voltage [V]: 12

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.00 42.51 0
Start [MHz] Stop [MHz]	121800.000 123200.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	7000 1 1401 SWE



Frequency stability

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	965.706	MHz	INFO
T1 99%	116000	---	122028.2059	MHz	PASS
T2 99%	---	123000	122993.9120	MHz	PASS

Test for Temperature[°C]: 20 | Voltage [V]: 12

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.00 42.51 0
Start [MHz] Stop [MHz]	121800.000 123200.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	7000 1 1401 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	963.948	MHz	INFO
T1 99%	116000	---	122028.9699	MHz	PASS
T2 99%	---	123000	122992.9181	MHz	PASS

Test for Temperature[°C]: 30 | Voltage [V]: 12

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.00 42.51 0
Start [MHz] Stop [MHz]	121800.000 123200.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	7000 1 1401 SWE



Frequency stability

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	962.750	MHz	INFO
T1 99%	116000	---	122029.3061	MHz	PASS
T2 99%	---	123000	122992.0558	MHz	PASS

Test for Temperature[°C]: 40 | Voltage [V]: 12

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.00 42.51 0
Start [MHz] Stop [MHz]	121800.000 123200.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	7000 1 1401 SWE



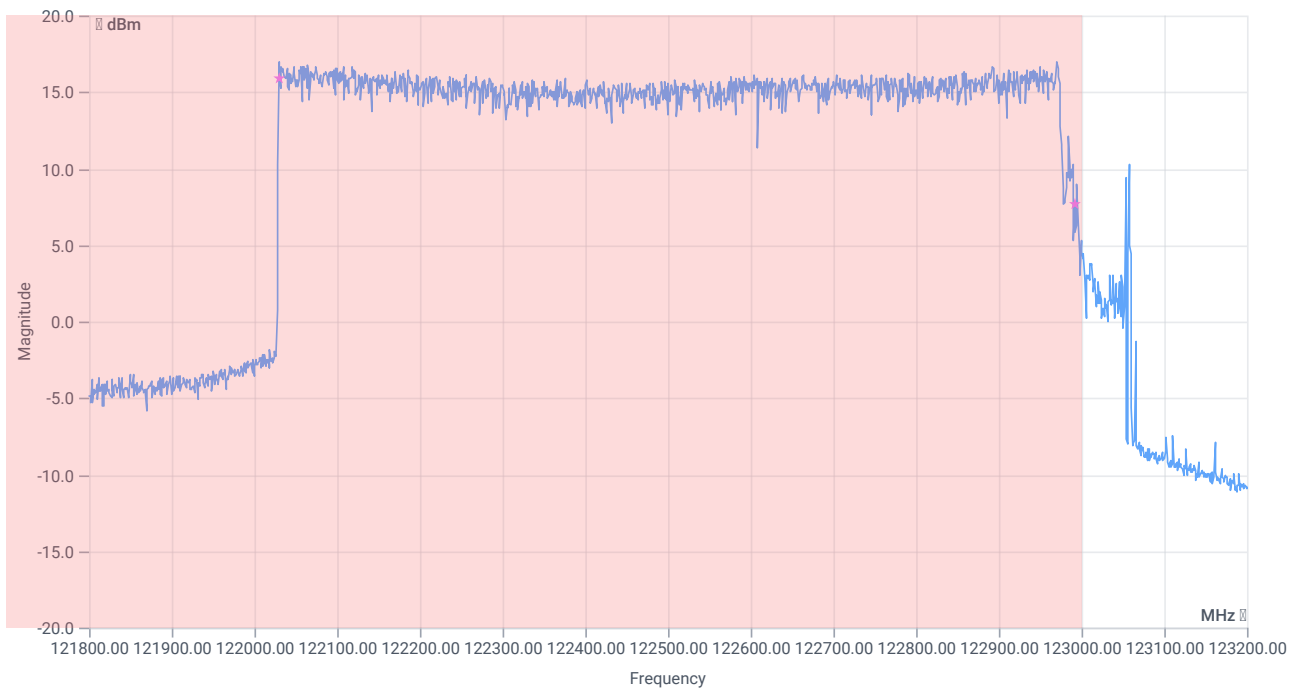
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	958.580	MHz	INFO
T1 99%	116000	---	122030.3605	MHz	PASS
T2 99%	---	123000	122988.9407	MHz	PASS

Test for Temperature[°C]: 50 | Voltage [V]: 12

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.00 42.51 0
Start [MHz] Stop [MHz]	121800.000 123200.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	7000 1 1401 SWE



Frequency stability

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	961.076	MHz	INFO
T1 99%	116000	---	122030.0040	MHz	PASS
T2 99%	---	123000	122991.0797	MHz	PASS

Verdict

PASS

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