

TEST REPORT

SV 800 OFDM (MEDIAFLO) EXCITER

FREQUENCY STABILITY OVER TEMPERATURE RANGE

2June 2K8



ROHDE & SCHWARZ

Test report

Project: Sx800
Subject: FCC testing according to part 2.1055
Name: Sx800 - test report FCC part 2.1055

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Date: 28.09.2007

Status: passed

History:
28.09.07 Böhm created



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1 Test setup

1.1 Test setup

The objective of the test is to verify the frequency stability of the Nx8000 transmitter versus temperature. FCC part 2.1055 allows that the test is performed with the frequency determining element only which is the exciter Sx800. The temperature range is from -30 °C to 50 °C in steps of 10 °C. The test frequency is 750 MHz.

For the test the exciter has been operated in a temperature rack without input signal.

The monitoring output of the RF local signal of the synthesizer has been measured with a R&S FSQ spectrum analyzer.

A GPS 10 MHz reference was connected to the reference input of the FSU. A marker was set to the local signal, the signal counter was activated with a resolution of 0.1 Hz.

The synthesizer board was working in internal mode, so not locked to an external reference.

1.2 Test equipment

Device	ID	Serial No.
Spectrum Analyzer FSQ 8	1155.5001.88	200280
Digital Thermometer R&S PTM	336.8010.02	891981/009

1.3 Device under test

Gerät / Baugruppe	ID	Ser.-Nr.
Sx800 exciter	2095.1502.60	100035

1.4 Software version of exciter

software version of exciter: 01.83



2 Test results

2.1 Test results

No.	Date	Time	nominal Temperature	measured Temperature	Frequency / Hz	Difference / Hz
1	27.09.2007	16:00	20,0 °C	20,7°C	749999999,6	-0,4
2	28.09.2007	09:00	-30,0 °C	-30,5°C	750000002,3	2,3
3	28.09.2007	10:00	-20,0 °C	-20,2°C	750000001,7	1,7
4	28.09.2007	11:00	-10,0 °C	-10,8°C	750000001,2	1,2
5	28.09.2007	12:00	0,0 °C	0,5°C	750000000,8	0,8
6	28.09.2007	13:00	10,0 °C	9,8°C	750000000,4	0,4
7	28.09.2007	14:00	20,0 °C	20,8°C	750000000,0	0
8	28.09.2007	15:00	30,0 °C	29,9°C	749999999,5	-0,5
9	28.09.2007	16:00	40,0 °C	40,3°C	749999999,0	-1
10	28.09.2007	17:00	50,0 °C	49,8°C	749999998,4	-1,6

Remark:

The exciter was switched on at 20 °C from 27.09.2007 11:00 to 27.09.2007 16:00 and was cooled down to -30°C while switched on after 27.09.2007 16:00.

