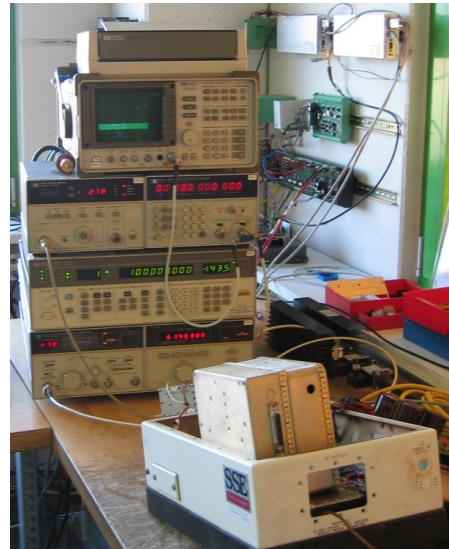


SatService Company facilities and equipment

The company SatService GmbH is working in a two floor building with more than 400m² working space. The space is divided in office rooms and two laboratories for software and hardware development and testing. In its RF/Microwave laboratory SatService owns all necessary RF and microwave test instruments. These give SatService the possibility to develop, test and verify all satellite ground stations and its related equipment. The following table gives an overview of some of the available measurement instruments at SatService. At the end of this chapter you see also some impressions of the measurement instrument in the SatService laboratory.

RF Analyser and Measurement equipment

Vectorial Network Analyser	Wiltron model 360
Scalar Network Analyser	HP8756A and HP 8341A
Microwave Link Analyser	W&G RM5 / RM5S
Noise Figure Meter	HP8970A
Spectrumanalyser 3GHz	Advantest R3131
Spectrumanalyser 26.5GHz	HP8563E
Synthesizer 3GHz	HP8648B
Synthesizer 2060 MHz	HP8657B
Synthesizer 18 GHz	HP8672A
Synthesizer	HP 8341A
Frequency Sweep Oscillators with different plug-ins from 2 to 18GHz	HP 8620C
Powermeter	HP436A with HP8481A and HP8484A
Oscilloscope	HP54503A
Oscilloscope	HP54645A
Bit-error-Analyzer 20 KBit	Wandel & Goltermann PF-20
Bit-error-Analyzer 64 KBit	Wandel & Goltermann DF-64
Bit-error-Analyzer 2 MBit	Wandel & Goltermann PF-2
Digital Transmission Analyser 140 MBit	HP 3764 A
Radio Link Measurement Set for amplitude and group delay measurement	RMS-5 and RME-5



Logic Analyser	HP 1630
Two climatic exposure test cabinet	-30° to 80° C
Analysier	HP8563E
Multimeters	HP 3478
Frequency Counter 18 GHz	HP5342A
Frequency Counter 1 GHz	HP5384A

Audioanalyzer

Audio ozylator	Lindows LA101
Audio Measurement Set	Lindows LA102

Stability Test Equipment



Software development

Programming Language

Java / Eclipse Platform

sat-nms M&C software (Client / Server)

Automatic Measurement software

Delphi

Automatic Measurement software

Simulations

C/C++

Beck IPC microcontroller with integrated web server applications

Computer Aided Engineering

For its development activities SatService makes use of the well known analogue CAE simulation tool GENESYS from Eagleware, one of the leading suppliers of CAE simulation software for RF and microwave developments. This software was selected by SatService GmbH as it does not only allow the simulation of any analogue circuit between DC up to the microwave frequency bands but also allows the seamless generation of layouts for the printed circuit board production.

