

FIRMWARE VERSION HISTORY of R&S Broadcast Test System SFU

VERSION 01.90 / 2008-08-06 / Manual D11 or E11

Note: -

Known problems:

- Fading: Entering doppler frequencies in 2 path dynamic mode may cause wrong fading results. Please use Fading/Settings/REFERENCE SPEED instead.

New features:

- AM/FM (SFU-K170) supported
- Fading: Path table visibility is improved
- Fading: Zoom of fading table is realized
- 8VSB: Center frequency is realized with baseband shift
- BERT: Gating time selectable
- File selector: Recent list available
- ISDB-T: Improved MER of central carrier
- Dynamic warnings of any application are visible in all applications
- Remote: RAW TCP/IP is supported
- Remote: TsGen: Read position is readable
- TX: Digital IQ IN indicates input symbol rate
- SFU-K223: (DAB PLUS STREAMS) supported
- SFU-K224: (ISDB-T STREAMS) supported
- TsGen: Interact with the progress bar cursor possible
- Noise AWGN: Eb/N0 is only shown when Signal Source = DTV

Bug fixes:

- DVB-S2: PCR jitter improved
- T-DMB/DAB: Level of TII correct
- ATSC: Sporadic errors due to PRBS fixed
- After repeated presets or enter with rotary knob the soft keys are working correctly
- DTMB: Synchronization error after constellation change fixed.
- Focus loss pressing <0> and <ESC> solved
- MediaFLO: Remote: MED:NAT DEF works correct
- Value ADJUSTMENT FREQUENCY is restored after adjustment of synthesis

VERSION 01.84 / 2008-06-17 / Manual D10 or E10

Note: Bug fixes only.

Bug fix: Remote Control command [SOURCE]:FSIMulator{1:2}:STANdard[?] is loading a fading profile correctly

Bug fix Version 01.82 included.

Known problems: Copying a table to the Favorites may cause problems

BUGFIX VERSION 01.82

Bug fix: FinishSetup copies SFU Icon from Desktop to StartUp to fix problem with error message after autostart of SFU

VERSION 01.82 / 2008-05-15 / Manual D10 or E10

Note: Bug fixes only.

Known problems: Copying a table to the Favorites may cause problems

Bug fix: FinishSetup can overwrite files with read only flag

VERSION 01.80 / 2008-05-06 / Manual D10 or E10

Note: OSS is part of this document

Known problems: Copying a table to the Favorites may cause problems

- A-VSB (SFU-K14) is supported
- MediaFLO: Channel Bandwidth 7 and 8 MHz is supported
- Fading: Split mode is supported
- HD Radio Waveforms (SFU-K357) supported
- Interferer: Level setting acc. to MBRAI (IEC62001)
- Phase Noise SFU-K41: Phase noise profile from K108 included
- External RF Calibration is available
- RF: Frequency Sweep: Mode STEP is supported
- CUSTOM OFDM (ARB) (SMU-K15) is supported
- Bug fix: ARB: Preset value of clock frequency harmonized with preset file
- Bug fix: Memory size for ARB and video generator is indicated correctly
- Singapore DV- and ATV-Libs supported
- ATV-VIDEO: Additional signals
- Bug fix: ATV Predef.: M/N PREDEF. works correct
- Bug fix: ATV: Video disturbance, by switching the SOUND MODEs, fixed.
- Bug fix: ATV-VIDEO: Field jitter of NTSC works correct
- Bug fix: ATV-VIDEO: Frequency response of SINx/x is repaired
- Bug fix: AtvVideoBasic: Color burst length and field jitter are correct
- Bug fix: AtvVideoBasic: PAL M: Color error in picture fixed.
- Fading: Execution time at changing parameters of "2 path dynamic delay" is decreased
- Bug fix: FADING profiles gauss+doppler, gauss(0.1fd), gauss(0.08fd) do not require a K32
- Bug fix: Fading: After PRESET and SET TO DEFAULT, the insertion loss of the fader is shown correctly
- Bug fix: Fading: Common dopplershift all path with CONSTANT PHASE profile works correct
- ISDB-T: coder extension for "sync + 187 payload" in test TS mode
- Bug fix: ISDB-T PRBS before convolutional encoder works correctly
- Menu SETUP/CONTROLLER removed
- Setup Communications: After editing is finished menu data are updated again
- Setup Communications: Network address settings are changeable
- Bug fix: Recall of APPL does not result in a deadlock
- Bug fix: SAVE / RECALL APPL with ARB file works correct
- Remote: Subsystem Identifier "IQCoder:" is optional
- Remote: IQC:DVBS:ROLL works correct
- Remote: ISDBt:ACD2 works correct
- T-DMB: Zero test sequence in subchannel available
- Bug fix: STC/SSTC table handled correctly with missing ETI signal at start-up
- TsGen: After PRESET TsGen is in running state
- TsGen: New Softkey "Open File"
- TsGen: Warning: "TSGEN: MISSING SW OPTION <option>" is indicated
- Bug fix: TS Record: ETI input sensitivity is improved
- Bug fix: TsGen: In record mode and recording T10 files, the record time is indicated correctly.
- Bug fix: TsGen: Repeatedly switching between START and STOP works

- Bug fix: DTMB: Missing constellations in SFN-mode added
- Bug fix: DVB-T: MER improved (central carrier)
- Bug fix: I/Q analog output overdrives I/Q analog inputs
- Bug fix: 8VSB: Special setting PRBS before mapper works correct
- Bug fix: Fading: Basic delay is set correctly after start of application
- Bug fix: Fading: FD30 and FD50 configurations show exact delays
- Bug fix: After Preset and pressing the rollkey (as enter) the softkeys are working again

VERSION 01.72 / 2008-02-08 / Manual D9 or E9

Note: Bug fixes only.

Known problems: see V01.70

- Bug fix: DVB-S2, timing problem with some units solved
- Bug fix: TS Libs DV-xxx, decryption working correctly again

VERSION 01.70 / 2007-10-31 / Manual D9 or E9

Note: TSGEN: ETI output only available when Transmission Standard is set to T-DMB/DAB.

Known problems:

TRP PLAY: Window Play with loaded DAB_C and FLO_C Files results in corrupt transport stream data output.

FADING: After Preset and Fading/Set to default/Fading ON the insertion loss of the fader is indicated wrong. This may lead to a wrong level of an interferer if fading is active.

Switching Insertion Loss mode to LOW ACP and back to Normal solves this problem.

FADING: Common Dopplershift all path = ON: Use of a Constant Phase or Static Path as path 1-1 may result in inconsistent. Dopplershift settings.

DMB-T (SFU-K7): Pilot Data setting may be wrong, especially when switching from DTMB (K12) to DMB-T (K7). Solution: Turn Special Settings on, Turn Pilot Data off, Turn Pilot Date on.

New:

- ISDB-TSB is supported
- ISDB-T: Status messages are shown
- Power Sensor (SFU-K55) is supported
- TsGen: Recording of ETI streams is supported
- SFU-K222: MediaFLO transport streams are supported
- BERT: Handling of high data rates improved
- DMB-TH: Support of released Chinese terrestrial DTV standard
- DMB-TH: Name changed to DTMB
- DTMB: PRBS 2⁹-1 no longer available
- Bug fix: DTMB: Error-Message 'CODER: USEFUL DATARATE TOO HIGH' appears if true
- ATV REALTIME: SFU-K193 M/N: Residual carrier was increased
- ATV: Korean stereo sound system supported
- ATV: SFU-K193 M/N: FM deviation is increased
- ATV REALTIME: New NICAM Signals supported
- MULTI-ATV PREDEFINED SFU-K199: Additional signals available
- Bug fix: ATV K199: All Std. I Predefines work correct.
- Bug fix: ATV: Sound mode no longer change the vision picture from video generator
- Bug fix: ATV: No longer influence between long video sequences and NICAM data
- SFU-K354: Digital Interferers: Additional signals available
- SFU-K356: Cable Interferers are supported

- SFU-K41: Phase noise: New Profile DVB-S2 A2 available
- Bug fix: Phase Noise Mask DVB-S2 P1 improved
- Bug fix: Phase Noise Mask DVB-S2 P2 improved
- Level: Additional unit dBmV is supported
- Remote: VXI-11 firewall exception is customer friendly supported
- Remote: Guard interval 1/4 is correct readable
- Remote: Preset does not change GPIB address
- Remote: Set default computer name is supported
- Remote: Improved OPC handling
- Remote: ISDB-T: [SOURce]:IQCoder:ISDBt[:SPECial]:SEGMENTS[:STATe] extended with [:SPECial]
- Bug fix: Remote: IQC:DVB-T:USED:BAND? is correct documented
- Bug fix: Remote: SYST:KLOC ON and OFF works correct
- Bug fix: Remote: *SAV works correct
- Bug fix: Remote: UNIT:VOLT switches unit for LEVEL in GUI
- DVB-S2: short FECFRAMEs supported
- DVB-S2: ACM mode supported
- DVB-S2: CCI mode no longer supported
- Bug fix: DVB-S2, DirecTV: File recall no more hangs
- Bug fix: Level and C/N inaccuracy in some rare cases of DVB-S2 fixed
- T-DMB: Test signal available
- MediaFLO: Limits of sinusoid test frequency are depending on channel bandwidth
- Fading: PI, PO, VU, MR profiles are realized as fading predefines
- Fading: Change of CONFIGURATION switches STANDARD to USER
- Bug fix: Fading: Single K32 enables gaussian fading profiles
- MediaFLO: Improvement of system clock accuracy
- STATUS: Menu is available
- Bug fix: IQ-Digital output select box entries correct
- Bug fix: Shut down of SFU is not interrupted by timeout
- Bug fix: No more system error while closing application
- Bug fix: Toggling by +/- key works correct
- Bug fix: SFU starts correctly after restore
- Bug fix: Key response is no longer broken by file recall

VERSION 01.60 / 2007-02-16 / Manual D1.60 or E1.60

Note: Due to extensive calculations at PATH TABLE 'PATH DYNAMIC DELAY' the setting times are significantly longer than at other fading path tables.

The use of '*OPC?' with fading commands in remote operation is recommended.

- Known problems:

FADING configuration FINE DELAY50: even and odd path GAUSDAB profile alternation is not correct.

INTERFERER MANAGEMENT: The use of I/Q DIGITAL IN or I/Q ANALOG IN as INTERFERER

SOURCE together with corresponding external signals can lead to faulty level settings. Level check is recommended.

- ATV-D/K, -I, -M/N (SFU-K191..193) supported
- ATV-L (SFU-K194) supported
- ATV: NICAM supported
- ATV: External VIDEO and AUDIO supported
- ATV-VIDEO library supported
- ATV without DTV and ATVPredef modulations possible
- ATV: Bandwidth coupling available
- Bug Fix: ATV: Special settings available after reboot
- DVB-S2: Enhanced features (Symbol rates, MODCODs 16/32APSK)

- Bug fix: DVB-S2: GUI field "USER1" no longer get lost
- Bug fix: Switching transmission standard from DirectTV to DVB-S2 works correct
- ISDB-T: supporting configuration via transport stream (compliant to ARIB STD-B31 Version 1.5)
- MediaFLO: supports 5 MHz bandwidth setting
- ARB: MediaFLO waveforms (SFU-K355) supported
- Fading: SFU-B31 (40 paths) supported
- Fading: Settings Reference = DopplerFreq available
- Fading: IEC62002_Portable Profile realized as predefine
- Fading: Fine delay profiles are only selectable with K30
- Fading: Remote: Query commands are working correct while FSIM:STATE = Off
- Fading: Remote: New command: FSIMulator:CONFig[?]
BIRThdeath|DELay|D30Fine|D50Fine|MDELay|P2Dyn
- Bug fix: Fading: Insertion loss reading with MODE=USER works properly
- Bug fix: Fading: Coupled parameters can only be read by SCPI
- Bug fix: Fading: RC20_ANX_B predefined profile is correct
- T-DMB/DAB: Setting of TII available
- DMB-TH (SFU-K12): Single Carrier Mode is supported
- DMB-TH (SFU-K12): Default constellation changed
- Bug fix: DMB-TH: Restore of parameters in CODING \ SPECIAL menu works correct
- Remote: Full File\Save, Recall, Load is supported, Save Noise to D:\NOISE moved
- TsGen: Using roll key for cursor setting
- Channel tables are supported
- Noise: C/N resolution expanded to 0.01dB
- Level: Resolution of output power in steps of 0.01dB
- Documentation: Error and warning messages are explained
- Save Now is supported
- File Box treats MB as 1024 * 1024 Bytes
- Bug fix: Hexadecimal input of PID in settings menu
- Controller FMR7 is supported
- 8VSB: Center frequency input not realized with a baseband shift
- Bug fix: 8VSB: output signal with small pilot values is correct
- Bug fix: No more system error after changing unit and value
- Bug fix: Attenuator fixed range up to date
- Bug fix: Attenuator fixed range setting is after start up correct
- Bug fix: Change of C/N without signal interrupts supported
- Bug fix: DVB-T/H USED BANDWIDTH values for predefined channels are correct
- Bug fix: DVB-C/-S: rare error in output signal at changement of constellation @ low symbolrates solved

VERSION 01.50 / 2006-08-18 / Manual D1.50 or E1.50

Note: Due to extensive calculations at PATH TABLE 'PATH DYNAMIC DELAY' the setting times are significantly longer than at other fading path tables.

- Known problems:

DIRECTV: Switching from DIRECTV (SFU-K9) to DVB-S2 is not working properly.

Interim Solution: After a PRESET of the instrument DVB-S2 is fully able to work again.

FADING INSERTION LOSS: Mode USER is not working properly.

- ISDB-T (SFU-K6) is supported
- Option DV-ISDBT is supported
- ATV-B/G (SFU-K190) is supported
- Extended ATV Predef (SFU-K199) is supported
- ATV Predef: K199 extended with NTSC split color bars with pluge
- DVB-T/H: Smart input stuffing is available

- ARB: trigger input and marker output signals available
- Channel tables are supported
- Fading: Profiles GAUS1, GAUS2, GAUSDAB are supported
- Fading: Extended delay ranges for birth/death and moving propagation are supported
- Fading: Moving Propagation and Birth Death: Minimum increment with speed unit mph and km/h works correct
- Bug fix: Fading: Lognormal with static path works correct
- TsGen: GTS Play: Shift of progress bar markers while player is paused works correct
- TsGen: Layout improved
- Bug fix: TsGen: Understandable warning messages are shown
- Bug fix: TsGen: Data rates at 100kBit are recordable
- Bug fix: TsGen: Manual stop of recording does not cause StopDelay and File Write Error
- Remote: BERT: Reading values simultaneously
- Remote: Network parameters are readable
- Bug fix: Remote: No longer ScpiKernelMassMem errors
- Bug fix: Remote: UNIT:VOLTage is used by setting VOLTage
- "Remote operation" is signaled during operation via TCP/IP
- DVB-S2: backwards compatible mode (H8PSK) no longer supported
- Bug fix: ASI/stuffing off compatible with DVB-S2
- J.83/B: Improvement of shoulder distance at roll off = 0.12
- Bug fix: 1024QAM sync trailer sequence works correct
- Assign to Info: Filenames (TsGen, ARB) can be assigned to Info
- Help of VISA and LabView drivers are visible

VERSION 01.44 / 2006-05-15 / Manual D1.44 or E1.44

- Automatic SW installation supported
- Phase noise, AWGN or impulsive noise simultaneously
- Impulsive noise covers ATSC A/74 Norm
- MediaFLO (SFU-K10): Improved pre-release is supported
- DMB-TH is supported
- SW Option SFU-K353 (DRM-Waveforms) supported
- SW Option SFU-K354 (DTV/MBRAI-Interferer) supported
- TsGen: Option K22 is independent of option K20
- Fading: brazil fading profiles added to standard fading profiles
- Fading: MBRAI Portable Profile is based on 360° reference
- Parameter names extended when assigned to favorites
- Optional shorten parameter names for user info field
- DVB-T/H: Range of used bandwidth enlarged to 1 .. 10 MHz
- DVB-T/H: Stuffing ON/OFF with input TS Player possible
- DVB-T/H: IFFT SYNCOUT signal is available
- Bug fix: DVB-T/H hierarchical coding: HP and LP is synchronized in DEMUX
- Bug fix: Fading: Basic delay after loading of fading profiles is correct
- Bug fix: ARB ON works if ARB is not selected in TX
- Bug fix: Interferer attenuation with signal source = ARB is correct
- Bug fix: All DVB standards: SPECIAL\RS=OFF works correct
- Bug fix: DVB-C/-S: rare error in output signal at symbol rates below 1MS/s solved
- Bug fix: BERT recognizes All Ones signals
- Bug fix: DVB-S2: Internal synchronization at PRBS signal works correct
- Bug fix: Fading: MBRAI portable profile is correct
- Bug fix: ATT. FIXED RANGE is updated after change of MODULATOR LEVEL
- Bug fix: Remote level read out after noise only is correct

VERSION 01.42 / 2006-03-16 / Manual D1.40 or E1.40

- MediaFLO (SFU-K10): Pre-release is supported
- PEP value of RF signal is indicated
- ARB: Pulse generator simulation is available as waveform
- ARB: File loading progress is shown with a continuous bar

VERSION 01.40 / 2006-02-15 / Manual D1.40 or E1.40

Note: If the instrument is operated with ALC = ON and ATTENUATOR MODE = FIXED perform ADJUSTMENT:LEVEL calibration for highest accuracy.

- T-DMB/DAB Transmission Standard is supported
- Hardware Option B11 (External ETI Input) is supported
- TsGen: TRP Play (SFU-K22) is available
- Stream Library DV-H264 is supported
- SW Option SFU-K221 (T-DMB Streams) is available
- SW Option SFU-K352 (DVB-H Waveforms) is supported
- DIRECTV: Code rate 1/2 is supported
- BERT: Ability to handle bursty signals (e.g. DVB-H)
- TsRec: T10 Mode with 204 Packets and DVALID = 188 functional
- ARB: Readout of header data for waveform files is supported
- Default value of Level/ALC/State changed to ON
- Adjustment parameters are not saved with application
- Hardware for multi noise is supported
- Bug fix: Remote: DVB-T: Setting long strings to disabled carriers no longer crash system
- Bug fix: After switching between applications ARB clock frequency is correct
- Bug fix: Startup works with MOD=OFF and NOISE=ON
- Bug fix: Fading: Set to default works correct
- Bug fix: Fading: Fine delay 30/50 mode: Static path does not respond to a constant phase input
- Bug fix: Remote: Queries of floats deliver full resolution
- Bug fix: Recall works with MOD=OFF and NOISE=ON
- Bug fix: Remote: Display off works correctly
- Bug fix: Remote: All queries return short form (SCPI compliant)
- Bug fix: DVB-C, DVB-S very low input data rate: Messages are correct
- Bug fix: TsGen: BIN mode of recorder is working
- Bug fix: ATV Predef: NICAM has correct impulse shaping
- Bug fix: ATV Predef: Level is vision carrier power
- Bug fix: Database error "Condition: m_childTAList.find >=0" fixed
- Bug fix: Switching applications after changing real-time clock is possible
- Bug fix: Fast sweep no longer crashes SW due to memory protection fault
- Bug fix: No more memory leaks during sweep

VERSION 01.30 / 2005-12-06 / Manual D1.30 or E1.30

Note: If the instrument setting was stored with Noise=ON or if the instrument was switched off with Noise=ON, a RECALL or switching on the instrument forces Modulation=ON.

- Known problems:
RECALL APPL: Opening old instrument setups which were stored with an older FW version can cause problems (wrong preset values and default values). Solution: Do not use old instrument setups.
DVB-T: seldom sync problems with QPSK CR=5/6

- Enhanced Fading (SFU-K30) supported
- 8VSB (SFU-K4) supported
- J.83B (SFU-K5) supported
- DIRECTV legacy Mode (SFU-K9) supported
- T-DMB-ARB-Files (SFU-K351) supported
- ATV Predefined (SFU-K199) supported
- Interferer management (SFU-K37) supported
- Remote commands TSGEN/TSREC supported
- Automatic setting of base band gain can be disabled for seamless level setting
- SFU-B10 is exchangeable to SFU-B1
- Fading: Delay units in μ s
- Fading settings: insertion loss and clipped samples are visible
- Fading settings: insertion loss modes USER / LOW ACP are available
- File box: File size > 4GByte is supported
- DVB-S2: Progress bar is improved
- Favorites in user area are supported
- Mouse clicks can start trigger events
- Mouse wheel is supported
- In Modulation/Signal Source = I/Q Analog, Over range of the AD-Converter generates warnings
- TSGEN: Player data rate under 300 kBit/s work correct
- TSGEN: Unit keys MHz/KHz also work for unit Bytes in BIN mode
- TSGEN: TRP Play: Shift of progress bar markers while player is paused works correct
- ARB: Header information IQ SWAP in waveform files is supported
- New Parameter FREQUENCY:SWEEP:STATE supported
- IP address and full computer name are shown at Setup\Communication
- Signal Info / Statistics is supported
- Stuffing Off available with Input ASI
- Remote state is correct indicated
- Bug fix: Phase noise level offset corrected
- Bug fix: Base band impairments are working correctly
- Bug fix: erroneous PLL UNLOCK message suppressed
- Bug fix: File Dialog Box: Sorting by size and date works correct.
- Bug fix: File box: New directories are shown
- Bug fix: adjustment of vector modulation is working in state modulation off
- Bug fix: Fading: Speed unit is not changed after loading profiles
- Bug fix: DVB-S2 correct spectrum at Special Settings = Off
- Bug fix: DVB-T hierarchical SPI Stuffing off is available on both SPI inputs.
- Bug fix: DVB-T: Channel bandwidth VARIABLE is not selectable
- Bug fix: Missing 12.8MHz REF also shown in the Warnings after new boot of the SFU
- Bug fix: remote operation of FREQUENCY:SWEEP:MODE is working
- Bug fix: Remote: State queries are SCPI compliant (0/1 instead of OFF/ON)
- Bug fix: soft key "SET TO STANDARD" works correct
- Bug fix: SFU starts up normally after changing date and time properties
- Bug fix: File Save/Load is compatible to former SW versions
- Bug fix: TSGEN: In TRP mode the TS-Data rate is correct.
- Bug fix: TSGEN: BIN-File mode of TS-Player is working correct

VERSION 01.22 / 2005-08-19 / Manual D3 or E3

- Known problems:
 - Focus can seldom be lost, Solution: Pressing home key.
 - At use of a mouse the input can be seldom blocked when editing the fading path table, Solution: Pressing the Preset key.

Adjustment fails if MOD=OFF

- Bug fix: Timing problems (results in MER degradation) on some DA-Converterboards solved
- Bug fix: Fading Doppler Freq updated on the display after changing the RF
- Bug fix: Settling times Freq/Level with fading improved
- Bug fix: SCPI command SYST:SERR? works correct
- Sweep supported again

VERSION 01.20 / 2005-06-30 / Manual D3 or E3

- Known problems:

SWEEP:

- Sweep disabled.

FADING:

- Long settling times at Freq and Level if fading is installed.
- Doppler Freq not updated on the display after changing the RF, change speed, freq. ratio or speed unit for display update.
- Focus is seldom lost, Solution: Pressing home key.

- Fading (SFU-B30) supported
- DVB-S (SFU-K3) supported
- TS-Recorder (SFU-B21) supported
- Phase Noise (SFU-K41) supported
- Impulsive Noise (SFU-K42) supported
- Help context sensitive
- Improved File dialog with File Manager
- LCD screen saver supported
- DVB-S2 CCI-Mode supported
- DVB-S2 (AMC-DIRECTV) extended test signals
- External Mod-Calibration for I/Q supported
- Automatic update of work view

- Bug fixes in all applications

VERSION 01.12 / 2005-02-16 / Manual D2 or E2

- DVB-S2: Input Signal Source = Test Signal supported
- DVB-S2: AMC=DIRECTV: Signal Source = Test signal supported
- Bug fix: DVB-S2 data rate dependent on pilots
- Bug fix: DVB-S2 pilots are handled correctly

- Bug fix: DVB-T hier. / Stuffing with ext. Clock works correct
- Bug fix: DVB-T Test signal (PRBS 2-15 / PID) works correct
- Bug fix: TEST SIGNAL with DVB-T hierarchical works correct
- Bug fix: DVB-T/H hier. coding: problems with some combinations of SOURCE (HP), SOURCE (LP)
- Bug fix: DVB-T/H hier. coding - SOURCE (LP) = TS PLAYER
- Bug fix: DVB-T/H: PID TEST PACKET works correct

- Bug fix: TS Player Play/Stop/Pause problem solved
- TS Player: Restart after switching off/on the instrument

VERSION 01.10 / 2004-12-14 / Manual D2 or E2

- DVB-T/H (SFU-K1) supported
 - TS-Generator (SFU-K20) supported
 - DVB-S2(SFU-K8, SFU-B1) supported
 - AMC-option)SFU-K108) supported
 - High Power (SFU-B90) supported
 - Extended I/Q (SFU-K80) supported
 - Simple File dialog supported
 - Favorites supported
 - Option Management
- Bug fixes in all applications

VERSION 01.00 / 2004-10-11 / Manual D1 or E1

- DVB-C (SFU-K2) supported
- BER (SFU-K60) supported
- Noise (SFU-K40) supported
- DMB-T (SFU-K7, SFU-B1) supported

1 Open Source Acknowledgement

This instrument firmware makes use of valuable open source software packages. The most important of them are listed below together with their corresponding open source license. The verbatim license texts are provided in the following chapters.

| Package | Link | License |
|--------------------------|--|-----------------------------------|
| FileZilla Server | http://sourceforge.net/projects/filezilla/ | GNU General Public License |
| VLC | http://www.videolan.org/vlc/ | GNU General Public License |
| VNC | http://www.realvnc.com/ | GNU General Public License |
| Net-SNMP | http://www.net-snmp.org | Net-SNMP |
| Tomcat | http://tomcat.apache.org/ | Apache License |
| Java Runtime Environment | http://java.sun.com/javase | Sun Java License |
| jFreeChart | http://www.jfree.org | GNU Lesser General Public License |
| apache-net | http://commons.apache.org/net | Apache License |
| SNMP4J | http://www.snmp4j.org/ | Apache License |
| ONC-RPC | http://www.plt.rwth-aachen.de/index.php?id=258 | Sun RPC License |
| OpenSSL | http://www.openssl.org/ | OpenSSL / SSLeay |
| ResizableLib | http://www.geocities.com/ppescher | Artistic License |
| BOOST-Library | http://www.boost.org | Boost License |
| ZLib | http://www.zlib.net | ZLib License |
| Xalan, Xerces | http://xalan.apache.org/ - http://xerces.apache.org | Apache License |

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com) and software written by Tim Hudson (tjh@cryptsoft.com).

Rohde & Schwarz would like to thank the open source community for their valuable contribution to embedded computing. The source code of the open source packages is available on request.

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Version 2, June 1991

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