



Chameleon Software 2.4.3 release notes

Innehåll

1. Software 2.4.3; Bug fix release	2
2. Software 2.4.2; Internal streaming in GN50, SDI in to analogue out	2
3. Software 2.4.1; Bug fix release	2
3.1 Bug fixes	2
4. Software 2.4 ; LATAM digital	2
4.1 ISDB-T modulation.....	3
4.2 J.83 Annex B and J.83 Annex C modulation (released in SW1.8.2)	3
4.3 AFD handling	3
4.4 IP input redundancy bit rate threshold	3
5. Software 2.3; Analogue LATAM, Service release integration and corrections	4
5.1 New UI look-n-feel, and UI enhancements	4
5.2 Analogue LATAM support.....	4
5.3 HD-SDI, DTMB code rates, IP FEC out, Pro:Idiom encryption	5
5.4 New tuner inputs: J.83 Annex B, J.83 Annex C, ISDB-T	5
5.5 ASI 204 bytes and SNMP version 3.....	5
5.6 Corrections	5
6. Software 2.1.3; NIT generation and PID allocation corrections	5
6.1 Bug fix for NIT generation, NIT update and EIT update	5
6.2 PID allocation correction	5

1. Software 2.4.3; Bug fix release

The software 2.4.3 resolves some bugs from previous releases.

- Improved EIT performance and stability.
- Improved scaling of OSD and subtitles.
- Fix that solves communication problem with Tuner067.
- Video group delay pre-correction setting added for Analogue output.
- Added software option for operation mode SDI to Analogue.
- Fix problem with AC-3 sound on input.
- Fix for zebra lines in DVB subtitles.

2. Software 2.4.2; Internal streaming in GN50, SDI in to analogue out

The SW2.4.2 contains the SDI input (via BNC connector) to analogue output. Further, with the SW2.4.2, the Chameleons installed in a GN50 base unit will be able to use streaming between the Chameleons without having the GNSTR SW option. For external streaming, in and out of the GN50, GNSTR is still required in each Chameleon.

3. Software 2.4.1; Bug fix release

The SW2.4.1 resolves some bugs from previous releases.

3.1 Bug fixes

- Teletext subtitling: A previous requirement to reboot the module after changing the teletext subtitling settings has been fixed
- SNMP traps: Sending of double SNMP traps for some configurations has been fixed
- Analogue output: A previous requirement to have the SDI (GNxSDI) SW option to be able to configure a new analogue output has been removed
- IP input regulator: Fix for better handling "low quality" IP inputs
- Service loss: Fix for some cases when input indicates no services after several days up-time

4. Software 2.4 ; LATAM digital

The SW2.4 includes the "digital LATAM" outputs QAM J.83 Annex B, QAM J.83 Annex C and ISDB-T. The meta data handling for these outputs is PSI/SI. The QAM J.83 Annex B and QAM J.83 Annex C modulations were released in SW1.8.2.

Tuner capability has been upgraded for reception of DVB-S2 16APSK and 32APSK (specific for tuner067).

Other added functionality:

- AFD handling
- Bit rate threshold for IP input redundancy
- Subtitling bug fixes
- Usability enhancements

4.1 ISDB-T modulation

The SW2.4 includes a single ISDB-T modulator. ISDB-T out requires the GNISMOD SW option and running operation mode ISDB-T you can configure one ISDB-T output. The meta data supported is DVB-PSI/SI.

4.2 J.83 Annex B and J.83 Annex C modulation (released in SW1.8.2)

The J.83 Annex B (up to 2 outputs) and the J.83 Annex C (up to 4 outputs) released with SW1.8.2 complements the digital outputs for Latin America . Along with these modulations there are the Operation Modes J.83 Annex B and J.83 Annex C, and these modulations are enabled with the SW options GNCMOD, GNDCMOD, GNTCMOD an GNQCMOD (same SW options as for DVB-C modulation). The modulations comply with the IUT-T J.83 Annex B and J.83 Annex C respectively. It should be noted that the meta data supported is DVB-PSI/SI.

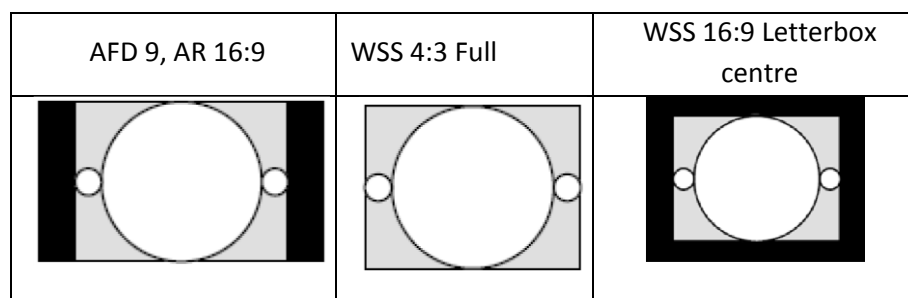
4.3 AFD handling

The Software 2.4 includes handling of a subset of AFD (Active Format Description) signalling. In FW2.3srB1, a sub-set of the AFD codes defined in ETSI TS 101 154 are handled;

- 1000 (8) as coded frame
- 1001 (9) 4:3 active picture
- 1010 (10) 16:9 active picture

The source AFD signalling will be used for calculating the outgoing WSS signalling if the WSS configuration is set to Auto, and the Video conversion to Auto or Letterbox.

An example of AFD usage is when the source video has aspect ratio 16:9, but the AFD is signalling that the active part of the video frame is “the middle 4:3 part”. The resulting calculated WSS signalling allows 4:3 TV sets to display the active part of the video frame over the whole display. If AFD is not taken into account, the 16:9 frame with black left and right bars would be letterboxed to “stamp” size for 4:3 TV sets.



4.4 IP input redundancy bit rate threshold

The IP input redundancy in software 2.4 includes a trigger setting based on input bit rate.

Redundancy mode	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF
Linger time (seconds)	<input type="text" value="5"/>
Latency time (seconds)	<input type="text" value="5"/>
Bitrate threshold (kbit/s)	<input type="text" value="200"/>

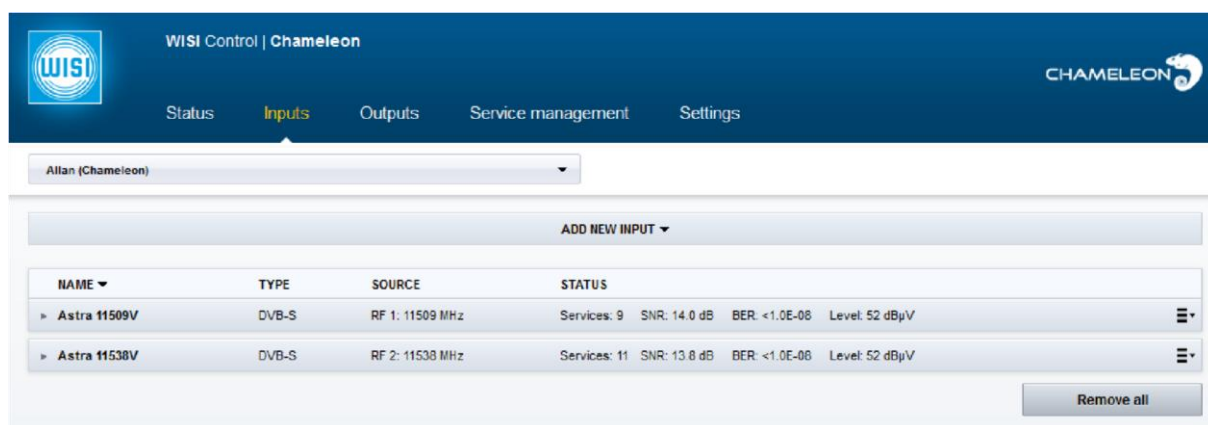
5. Software 2.3; Analogue LATAM, Service release integration and corrections

The main features added in SW2.3 are support for analogue outputs for Latin America (PAL-M, PALN, NTSC, and different audio and subtitling/caption options). The SW2.3 also integrates some features that were previously only available in service releases (e.g. HD-SDI output, DTMB for different code rates, IP FEC out, Pro:Idiom encryption). Further to this, SW2.3 includes support for the hardware version with tuner 067, and the inputs supported by this tuner (DVB-S/S2/T/T2/C, QAM J.83B/J.83C, ISDB-T). The UI has a new design for improved usability.

Apart from the above mentioned features, a number of minor improvements and corrections have been integrated in the SW2.3 release.

5.1 New UI look-n-feel, and UI enhancements

The look-n-feel of the user interface is updated for improved usability.



There are some additions and changes in the User Interface:

- Selection of services, decoder settings etc. for analogue outputs are moved to Service Management
- The Outputs (right) side of Service Management has an added Transport Streams tab - ASI in/out has settings for both 188 and 204 byte packets

5.2 Analogue LATAM support

Software 2.3 adds support for:

- PAL-M
- PAL-N
- NTSC
- MTS/SAP (BTSC) audio out for PAL-M and NTSC
- SCTE27 subtitling

5.3 HD-SDI, DTMB code rates, IP FEC out, Pro:Idiom encryption

With software2.3, one HD-SDI output can be configured. HD-SDI output is supported in the HD-SDI operation mode. HD-SDI requires SW option GNHSDI.

The operation modes *DTMB mode (code rate 0.6)* and *DTMB mode (code rate 0.8)* allows selection of code rate for DTMB. DTMB requires SW option GNDMOD.

In the operation mode *Streaming FEC mode*, you can add up to 4 IPTS with IP FEC out. The streaming with IP FEC requires the GNSTREC SW option.

SW2.3 integrates the implementation of Pro:Idiom encryption. In Pro:Idiom mode you can encrypt up to 8 services in one IPTV output. The SW options required are GNQPISCR or GNOPISCR.

5.4 New tuner inputs: J.83 Annex B, J.83 Annex C, ISDB-T

Software 2.3 running on the new hardware with tuner 067 allows configuration of QAM J.83 Annex B, QAM J.83 Annex C and ISDB-T inputs.

5.5 ASI 204 bytes and SNMP version 3

ASI inputs and outputs support both 188 bytes packets and 204 bytes packets in software 2.3. The SNMP implementation is updated, and now supports SNMP versions up to v3.

5.6 Corrections

Software 2.3 implements a number of corrections to the functionality of previous FW versions. The most notable corrections are for descrambling deselection after changing CI watchdog settings, for bit rate error in Unicast with consecutive ports, and for PMT PID range.

6. Software 2.1.3; NIT generation and PID allocation corrections

SW2.1.3 contains corrections for the NIT generation and for erroneous PID allocations. In all other respects, SW2.1.3 has the same functionality as SW2.1.1.

The `cable_delivery_descriptor (0x44)` for QAM J.83 Annex B outputs has been added.

6.1 Bug fix for NIT generation, NIT update and EIT update

In software2.1.1, NIT table updates can fail to re-generate a new NIT correctly due to erroneous concatenation of NIT information from different outputs. Further, after changes of ONID, Network ID or Network Name the EIT updating sometimes drops entries.

SW2.1.3 solves these bugs.

For the EIT “missing entries”, this was mainly seen for EIT other. See Redmine issues #7317, #7475

6.2 PID allocation correction

For very low quality inputs, the Chameleon can erroneously allocate memory for too many PIDs. This can lead to a memory allocation failure, and reboot. Software 2.1.2 solves this problem.