AC9100 SOFTWARE RELEASE HISTORY

General

Minimum recommended software version: 4.7.2 (4.8.0 with 2nd gen AC9100)

Software update methods:

− **Local update:** CATVisor Commander 2.9 or later, service port connection with USB cable. Typical update time 1 min.
File: *AC9100_appl_x.x.x.srec*

− **CATVisor mode remote update:** Unicast update with CATVisor Commander or SmartLoader or broadcast update with SmartLoader. Typical unicast update time 5 min.
File: *AC9100_appl_x.x.x.srec*

− **HMS mode remote update:** With SCTE-HMS-DOWNLOAD-MIB (SCTE 38-8 2002 / HMS063) compatible download tool. Typical update time 5 min.
File: *AC9100_appl_x.x.x_HMS-download.srec*

− **DOCSIS mode remote update:** Unicast update with CATVisor Commander or SmartLoader, or with SCTE-HMS-DOWNLOAD-MIB compatible download tool. Typical update time 1 min.

NOTE! A special two-step procedure is required when updating from software version <4.5.4 to version >4.5.4: The unit must be first updated to version 4.5.4 and only after that to the final version. This is needed because only version 4.5.4 is able to make the BIOS update which is required to support later versions. Direct software update from version <4.5.4 to version >4.5.4 is not possible.

LATEST VERSION

Version 4.11.11, released 5.3.2021 – Minor enhancements and bug fixes

Compatibility

Compatible with all AC9100 hardware versions.

Compatible with AC6980, AC6981, AC6983, AC6991 and AC6992 transponders.

All required viewer files are included in DUS100 package version 5.22 or later.

New features

– 2nd gen AC9100 only: Changed "RPD offset" parameter default value from -5.5 to 0.0 dB and adjustment range from -20…0 to -15…+5 dB. RPD offset is automatically adjusted to new value without affecting forward path levels when software version 4.11.0 or later starts for the first time. (Shout 39425)

– 2nd gen AC9100 only: Added "RPD PSU 1/2 failure" alarms. (Shout 41012)

– 2nd gen AC9100 only: Added new data fields to RPD communication.

– If forward path pilot based automatic alignment fails due to insufficient gain/slope adjustment range, it now does a "best effort" adjustment instead of returning to original values. This is indicated with ALSC led blinking yellow if the adjustment was started with the transponder button. (Shout 38138)

– Pilot based automatic alignment now stops if "Unknown module" or "Backup activated" alarms are active. (Shout 40948)

Fixes

– 2nd gen AC9100 only: Fixed: "Settings changed" alarm sometimes appears incorrectly when RPD is installed. (Shout 40760)

– Fixed: Some AC6983 transponder hardware version B units may display 5 dB too high modem receive level value. (Shout 38528)

– Fixed: OMI testpoint selection returns to "Automatic" after 30 hours instead of 30 minutes. (Shout 40119)

– Fixed: Pilot and spectrum measurements of output 1 may occasionally show incorrect values if output 3 is disabled. (Shout 40335)

– Fixed: Using SNMP community strings longer than 15 characters with remote SNMP communication does not work and may cause a memory leak which eventually causes a reboot. (Shout 38170, 39117)

– Fixed: AC699x transponder in HMS mode: Remote IP address setting via HMTS does not work if IP address last octet is >223. (Shout 39282, 39284)

– Fixed: "Settings changed" alarm stays on when AC6983 transponder is used with IPv6 address. (Shout 37712)

– Fixed: ALSC led blinks in green instead of yellow after automatic alignment if forward path cannot be adjusted but return path is OK. (Shout 39781)

– Improved AC698x DOCSIS transponder watchdog. (Shout 37749)

– Internal changes not visible to end-user. (Shout 29809, 37211, 37258, 37480, 37941, 38348, 38801, 38840, 38858, 39324, 39472, 39546, 39761, 40458, 40463, 40632, 40673, 40674, 40783, 40787, 40791, 40817, 40988, 41115)

OLDER VERSIONS

Version 4.10.160, released 1.9.2020 – Minor enhancement

Compatibility

Compatible with all AC9100 hardware versions.

Compatible with AC6980, AC6981, AC6983, AC6991 and AC6992 transponders.

New features

− Changed return path gain adjustment range from -20…0 to -22…0 dB. (Shout 40097)

Version 4.10.16, released 4.6.2019 – Minor enhancements

Compatibility

Compatible with all AC9100 hardware versions.

Compatible with AC6980, AC6981, AC6983, AC6991 and AC6992 transponders.

New features

− 2nd gen AC9100 only: Added support for RPD connection using AC6430 module instead of AC6431 module in transmitter slot 4. (Shout 36595)

− Removed "max hold" of 5 sweeps from ingress measurement digital detector to get faster reaction time. Analog detector still has "max hold" of 5 sweeps. (Shout 30135)

Fixes

− Fixed: Spectrum and ingress limits are not always taken into use properly if they are loaded with SettingsSaver. Software reset fixes this. (Shout 37024)

− 2nd gen AC9100 only: Fixed: Return path OMI based alignment does not work if analog optical transmitters are not installed. (Shout 36514)

− Internal changes not visible to end-user. (Shout 36018, 36073, 36649, 36912, 36941, 36981, 37213)

Version 4.10.2, released 25.1.2019 – AC6983 support , enhancements and minor bug fixes

Compatibility

Compatible with all AC9100 hardware versions.

Compatible with AC6980, AC6981, AC6983, AC6991 and AC6992 transponders.

New features

− Added support for AC6983 transponder.

− Added new options for automatic ingress blocking: "Turn off during ingress alarm" and "Attenuate during ingress warning, turn off during ingress alarm". (Shout 36440)

− Changed pilot, spectrum and ingress detector type parameters to allow more detector types in the future. This requires no user action when software is updated from <4.10.2 to ≥4.10.2, but if software is later downgraded back to <4.10.2 the detector types must be manually corrected. (Shout 35807, 35706)

Fixes

- Fine-tuned AC6981 and AC6992 transponder forward path level measurement accuracy at higher frequencies. (Shout 35490, 35559, 36237)

- Improved output 1 pilot and spectrum measurement accuracy with some units and frequencies. (Shout 36136)

- Internal changes not visible to end-user. (Shout 27897, 31331, 34795, 35261, 35413, 35453, 35467, 35471, 35495, 35542, 35590, 35692, 35844, 35846, 35860, 35872, 35909, 35920, 36048, 36298)

Version 4.9.1, released 9.5.2018 – Enhancements

Compatibility

Compatible with all AC9100 hardware versions.

Compatible with AC6980, AC6981, AC6991 and AC6992 transponders.

New features

- Added "Output 3 follows output 1 instead of using its own pilots" feature. When it is enabled AC9100 memorises output 3 and output 1 level difference. ALC then ignores output 3 pilots and adjusts output 3 with offset to output 1. If output 1 is adjusted to limit, "ALC saturated" alarm is given and adjustment freezes for both outputs. If output 3 is adjusted to limit, "ALC saturated" alarm is given and output 3 adjustment freezes but output 1 continues to adjust. This feature can be used e.g. when output 3 pilots and spectrum analyser are disabled to enable CATVisor/HMS transponder communication on output 1 only. (Shout 34469)

- Added support for SNMPv2c GETBULK operation with AC6991 / AC6992 transponder. (Shout 34414)

Fixes

- AC6992 does not remember the last used communication frequency, but instead starts scanning from the start after modem reset. (Shout 34219)

- Internal changes not visible to end-user. (Shout 31797, 33254, 33520, 33527, 33650, 34158, 34164, 34169, 34178, 34180, 34181, 34187, 34199, 34215, 34241, 34293)

Version 4.8.0, released 18.1.2018 – 2nd gen AC9100 support, RPD support and minor bug fixes

Compatibility

Compatible with all AC9100 hardware versions.

Compatible with AC6980, AC6981, AC6991 and AC6992 transponders.

New features

- Added support for 2nd gen AC9100 (aka "AC9100 NEO").
- 2nd gen AC9100 only: Added support for RPD lid.
- 2nd gen AC9100 only: Added possibility to shut down output 3. (Shout 33524)
- 2nd gen AC9100 only: Added return path routing modes 11 and 12 and related signal splitting option.

Fixes

- Fixed: AC6980/AC6981: DOCSIS modem transmit level shown on "Transponder" page is 1 dB too low. (Shout 33670)

- Fixed: AC6991/AC6992: Setting netmask with SmartLoader does not work until reboot. (Shout 33518)

- Internal changes not visible to end-user. (Shout 32905, 33255, 33339, 33451, 33466, 33541, 33625, 33629, 33635, 33650, 33696, 33711, 33733, 33736, 33859, 33909, 33930)

Version 4.7.33, released 18.9.2017 – Minor bug fixes

Compatibility

Compatible with 1st gen AC9100 hardware.

Compatible with AC6980, AC6981, AC6991 and AC6992 transponders.

Fixes

- Fixed: Pilot based automatic alignment can occasionally end with incorrect gain/slope values, typically 20% of low and high pilot level difference. ALC will fix gain error but slope error persists. (Shout 33046, 33047, 33165)

- Fixed: When pilots are missing, pilot based automatic alignment does not always end with "Pilot(s) missing" status but sometimes tries to adjust and ends with e.g. "Slope out of range" status. (Shout 31784)

- Fixed: SNMP: Lid status shown wrong in SNMP alarm log. (Shout 32645)

- Fixed: Software version 4.7.10 gives "Internal error" if transponder is not installed when the software starts. (Shout 33214)

- Added possibility to run automatic alignment to only output 1 or output 3 by disabling other output's pilots. (Shout 32739, 32747, 33206)

- Internal changes not visible to end-user. (Shout 31065, 31550, 32642, 32737, 32875, 32901, 32905, 32910, 32942, 33016, 33132, 33143, 33210, 33218, 33231, 33258, 33260)

Version 4.7.10, released 1.6.2017 – Minor bug fixes

Compatibility

Compatible with 1st gen AC9100 hardware.

Compatible with AC6980, AC6981, AC6991 and AC6992 transponders.

Fixes

- Fixed: Return path backup, mode 10: "Backup activated" alarm stays on also after backup has been restored. (Shout 30503, 31913)

- Fixed: Problems updating AC6980, AC6981 or AC6992 software via remote HMS connection. (Shout 29478, 31007, 31836, 31976, 32616)

- Internal changes not visible to end-user. (Shout 30411)

Version 4.7.2, released 4.5.2017 – AC6981 support and minor bug fixes

Compatibility

Compatible with 1st gen AC9100 hardware.

Compatible with AC6980, AC6981, AC6991 and AC6992 transponders.

New features

- Added support for AC6981 transponder

- Changed forward path pilot based automatic alignment to return to OLC mode instead of previous mode when automatic alignment stops due to an error. (Shout 31799, 31908)

Fixes

- Fixed: Transponder settings cannot be edited when AC6992 transponder is installed and the node is powered from USB only. (Shout 31787)

- Fixed: Editing AC6992 transponder related settings can in some rare cases cause software reset. (Shout 31786)

- SNMP: Changed backup status OID from acxActiveOpticalInput to acxBackupStatus. (Shout 31547)

- Internal changes not visible to end-user. (Shout 29739, 31496, 31533, 31613, 31844, 31849, 31887, 31901, 31164)

Version 4.5.4, released 20.4.2017 – BIOS update and minor bug fixes

Compatibility

Compatible with 1st gen AC9100 hardware.

Compatible with AC6980, AC6991 and AC6992 transponders.

NOTE! When updating to version 4.5.4, AC9100 updates the BIOS when the software starts for the first time. Please make sure that AC9100 powering is not removed during the ~10 s time between "Update complete" message and the new software version appearing on "Properties" page. Failure to obey this may cause the unit to fail permanently and require a repair by Teleste service.

New features

- Updates AC9100 BIOS software to version 1.0.7 which makes it possible to update AC9100 software to later versions. (Shout 30715, 30980)

Fixes

- Fixed: SNMP: Incorrect "Lid closed" in discrete property table. (Shout 30842)

- Fixed: AC6992 transponder in HMS mode only: Pilot / tuner measurements show occasionally zero / wrong values. Fixing this requires also AC6992 modem software v1.0.20 or newer. (Shout 30692,30863)

- Fixed: AC6992 transponder only: Protocol change (HMS ⇔ CATVisor) causes modem parameters to be zero. (Shout 30491)

- Fixed: Transponder "Tx level at return path input" value is calculated incorrectly. (Shout 30925)

- Fixed: AC6992 transponder only: Ingress measurement results are ~6 dB too low when using "digital" detector. (Shout 30969)

- Fixed: Automatic alignment "Set reserve pilot target levels to measured levels" may be incorrect and not stored to non-volatile memory. (Shout 30906, 31158)

- Internal changes not visible to end-user. (Shout 30824, 30840, 30893, 30895, 30897, 30980)

Limitations

- This software version does not support transponder software update.

Version 4.3.61, released 7.12.2016 – Minor bug fix

Compatibility

Compatible with 1st gen AC9100 hardware.

Compatible with AC6980, AC6991 and AC6992 transponders.

Fixes

- Fixed: Pilot based automatic alignment does not start if low pilot target level is higher than high main pilot target level. (Shout 31042)

Version 4.3.6, released 12.9.2016 – AC6992 support, enhancements and minor bug fixes

Compatibility

Compatible with 1st gen AC9100 hardware.

Compatible with AC6980, AC6991 and AC6992 transponders.

New features

- Added support for AC6992 transponder. (Shout 30414, 30281, 30491, 30504)

- Added support for AC6980 hardware version E. (Shout 28791)

- Added routing modes 9 and 10. (Shout 29786, 24197, 29618, 29147)

- Added support for diplex filter additional info fields. (Shout 30320)

Fixes

- Fixed: Installing AC6980 may cause software reset. (Shout 28766)

- Fixed: Older alarm log timestamps change to wrong values after AC6980 is connected to CMTS. (Shout 29550).

- Fixed: Transponder software version is shown even after transponder has been removed. (Shout 28700)

- Improved gain and slope adjustment usability. (Shout 29636)

- Added filtering to optical input power measurement. (Shout 30195, 30208)

- Internal changes not visible to end-user. (Shout 28009, 28700, 29357, 30480).

Version 4.0.101, released 12.7.2016 – Major bug quickfix

Compatibility

Compatible with 1st gen AC9100 hardware.

Compatible with AC6980 and AC6991 transponders.

Fixes

- Fixed: Optical transmitter's RF level can be ~25 dB too low in some situations, depending on routing and backup configuration. (Shout 30221, 30240)

Version 4.0.10, released 16.12.2015 – Minor bug fixes

Compatibility

Compatible with 1st gen AC9100 hardware.

Compatible with AC6980 and AC6991 transponders.

Fixes

- Fixed: Optical transmitter laser current measurement shows incorrect value when module is installed when AC9100 is powered. (Shout 28629)

- Fixed: Remote AC voltage measurement is too slow, causing faulty values to be displayed after reset. (Shout 28785)

- Internal changes not visible to end-user. (Shout 28696)

Version 4.0.5, released 26.11.2015 – Minor bug fixes and enhancements

Compatibility

Compatible with 1st gen AC9100 hardware.

Compatible with AC6980 and AC6991 transponders.

Fixes

- Changed input gain range from -30…0 to -26…0 dB and interstage gain range from -13…0 to to -15…0 dB. (Shout 28493)

- Improved OLC functionality. (Shout 28583)

- Fixed: OMI based alignment does not work without "automatic alignment" product key. (Shout 28553)

- Fixed: Ingress and optical receiver 2 product keys are mixed. (Shout 28630)

- Fixed: False "Spectrum alarm" appears briefly after reset. (Shout 28556)

- Improved SettingsSaver compatibility. (Shout 28571)

Version 4.0.3, released 17.11.2015 – First customer release

Compatibility

Compatible with 1st gen AC9100 hardware.

Compatible with AC6980 and AC6991 transponders.