

Grace Design m905 Firmware Release Notes

m905 RCU:

Version: 1.00
Date: 2/20/2013

New Features / Changes:

1. Initial Release

Known Issues:

1. The fixed meter output level is +5dB higher than the displayed value. Example: a balanced input signal with level 0dBu, fixed meter level of 0.0dB results in an output level of +5dBu.
 2. User defined names that contain spaces are not correctly initialized after restoring factory defaults. A work around is clear all extraneous characters with spaces, exit setup and save.
 3. The error message displayed when incompatible firmware revisions exist in the system incorrectly displays the RCU firmware revision for the ACU and XMOS revisions as well.
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Version: 1.10
Date: 3/27/2013

New Features / Changes:

1. Added DSD64 (2.8224MHz) via DoP Version 1.1 playback support.
2. Added AES dualwire digital input option.
3. Added standard level / reference level display option to the speaker control.
4. Changed RCU talkback microphone configuration to provide +6dB higher gain with revision C m905 RCU hardware. On earlier hardware this change converts the talkback output on the remote control to a single-ended signal with twice the peak-to-peak output voltage.
5. Corrected the fixed meter output level display. A balanced input with +0.0dBu input, fixed meter level of 0.0dB results in an output level of +0.0dBu (+/-0.4dBu). A digital input level of 0dBFS, fixed meter level of 0.0dB results in an output level of +20dBu (+/-0.4dB).
6. User defined names that contain spaces are now correctly reset after restoring factory defaults.
7. ACU and XMOS revisions are now properly displayed on the incompatible firmware error message screen.
8. RCU version 1.10 requires ACU version 1.10 and XMOS version 1.10 to operate.

Known Issues:

Version: 1.12
Date: 7/16/2013

New Features / Changes:

1. Added DSD128 (5.6448MHz) via DoP Version 1.1 playback support
2. DAC rate status is indicated as either dsd64 or dsd128 when dsd playback is active

Known Issues:

Version: 1.13
Date: 12/3/2014

New Features / Changes:

1. Added support for optional infrared remote control interface
2. Added coarse / fine volume control mode. In this mode, the volume control covers the entire range in a single rotation. Pressing the volume knob down while changing volume enables fine 0.5dB step changes.
3. Added speaker and headphone power-up level option. Previously, the system always powered up with the headphones and speaker outputs at 0.0. This feature allows a user defined power up level.
4. Added option for changing the DAC filter response. Available options are fast and slow response.
5. Updated operation of MUTE/SOLO. MUTE now has highest priority. This allows muting of headphones or speaker outputs while soloing on other output. Before speakers outputs would always unmute when solo was active.
6. Added option to enable/disable the meter output for each input source. This allows the meter output to be turned off with sources that do not have relevant operating levels.
7. Added support for m905 Analog configuration. This introduces an additional "Balanced 2" analog input. In m905 Analog configuration, the digital related functions are not available on the remote.

Known Issues:

Version: 1.14
Date: 6/9/2015

New Features / Changes:

1. Added headphone source selection to headphone setup menu.
2. Added new meter output mode called 'fixed+i/p offset'. This mode includes input offsets in the calculation of the fixed meter output mode. This allows matching of operating and listening levels for digital and analog sources.

Known Issues:

Version: 1.15
Date: -

New Features / Changes:

1. Internal Revision - Unreleased

Known Issues:

Version: 1.16
Date: 2/10/2017

New Features / Changes:

1. Added support for m905 Phono Preamp option. In SETUP, the unbalanced input source is selectable between 'line' and 'phono'. Phono preamp option must be installed in system to use the phono input setting.
2. Added digital monitor speaker control. The digital loop thru source can now be selected as 'digital speaker 1'. In this mode, the digital loop thru output follows the monitor controls when speaker 1 is selected (operation of the analog speaker 1 output continues as normal). The digital speaker output is only active when monitoring digital PCM sources.
3. Added headphone mute / dim controls when monitor mode is set to exclusive. In this mode, the mute and dim controls will now affect the headphone output level when headphones are active.
4. Changed the headphone gain option to a variable +/-20dB level offset. This provides the same capability as the gain setting, with the added benefit of being able to calibrate the headphone level to match the speaker calibration. If updating from a previous version, any headphone gain (+10dB,+20dB) will need to be reconfigured as a level offset.

Known Issues:

m905 ACU:

Version: 1.00
Date: 2/20/2013

New Features / Changes:

1. Initial Release

Known Issues:

1. When crossfeed is enabled, the user configuration is not saved after the normal period of inactivity. Upon power cycling the system, the user configuration last saved before crossfeed was enabled will be recalled.
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2. Changing from a digital to analog input incorrectly resets the digital clocksource to the input's recovered clock regardless of user setting. Switching back to that digital input correctly configures the digital clocksource again.
 3. Changing from a digital to analog input incorrectly turns off digital de-emphasis regardless of user setting. Switching back to that digital input correctly configures the dac de-emphasis again.
 4. When ADAT or TOSLINK/SPDIF/AES are the selected clocksource for the USB input, the clock status is indicated as locked if the USB receiver is locked and the clocksource is switched to the selected clocksource regardless of the ADAT or TOSLINK/SPDIF/AES lock status.
 5. The demphasis options for ADAT and USB include the "auto" option. Since there is no emphasis indicator in the ADAT or USB bitstream, this setting results in the demphasis being always turned off.
 6. When the headphone source is configured for CUE, the input offset assigned to the CUE source is doubled on the headphone output.
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Version: 1.10
Date: 3/27/2013

New Features / Changes:

5. Added DSD64 (2.8224MHz) via DoP Version 1.1 playback support
6. Added AES dualwire digital input option
7. Added reference speaker level display option
8. Changed DAC oversample ratio configuration to 128xFS for base rate, 64xFS for dual rate and 32xFS for quad rate
9. When a factory restore is executed from within SETUP mode, the user configuration is reset to the default settings and is saved – overwriting the last saved user configurations.
10. Digital input clocksource setting is now preserved when an analog input is selected.
11. De-emphasis setting is now preserved when an analog input is selected.
12. When ADAT or TOSLINK/SPDIF/AES is selected as the clocksource for the USB input, the ADAT or TOSLINK/SPDIF/AES receiver must be locked to use this clocksource. If it is not locked, clock is indicated as unlocked and the USB is clocked off internal.
13. Removed demphasis "auto" option from the ADAT and USB inputs since there is no bitstream emphasis indicator.
14. ACU version 1.10 requires RCU version 1.10 and XMOS version 1.10 to operate.

Known Issues:

1. An internal communication timing condition exists that can result in momentary (< 1 second) drop-outs on digital audio
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playback. These may or may not result in a loss of lock condition being displayed on the m905RCU.

Version: 1.11
Date: 5/30/2013

New Features / Changes:

1. Corrects the internal communication issue that could cause momentary (<1 second) drop-outs on digital audio playback.

Known Issues:

Version: 1.12
Date: 7/16/2013

New Features / Changes:

1. Added DSD128 (5.6448MHz) via DoP Version 1.1 playback support

Known Issues:

Version: 1.13
Date: 12/3/2014

New Features / Changes:

1. Added support for optional infrared remote control interface. Supported remote controls are: Grace Design IR remote, Apple 'silver' IR remote, Apple 'white' remote and Logitech Harmony.
2. Added coarse / fine volume control mode.
3. Added speaker and headphone power-up level option.
4. Added option for changing the DAC filter response.
5. Updated operation of MUTE/SOLO.
6. Added meter output disable option.
7. Added m905 Analog configuration support.

Known Issues:

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Version: 1.14
Date: 6/15/2015

New Features / Changes:

1. Added headphone source selection for Control Room or CUE. When CUE is selected, the input offset assigned to the CUE source is correctly added/subtracted from headphone output. This setting should match the internal jumper positions for correct operation.
2. Added new meter output mode called 'fixed+i/p offset'. This mode includes input offsets in the calculation of the fixed meter

output mode. This allows matching of operating and listening levels for digital and analog sources.

Known Issues:

1. A calibration settings added since v1.10 reset to default values upon power cycling.

Version: 1.15
Date: 8/20/2015

New Features / Changes:

1. Corrects issue (1) from v1.14, where calibration settings added since v1.10 reset to default values upon power cycling.

Known Issues:

Version: 1.16
Date: 2/10/2017

New Features / Changes:

1. Added support for m905 Phono Preamp option. In SETUP, the unbalanced input source is selectable between 'line' and 'phono'. Phono preamp option must be installed in system to use the phono input setting.
2. Added digital monitor speaker control. The digital loop thru source can now be selected as 'digital speaker 1'. In this mode, the digital loop thru output follows the monitor controls when speaker 1 is selected (operation of the analog speaker 1 output continues as normal). The digital speaker output is only active when monitoring digital PCM sources.
3. Added headphone mute / dim controls when monitor mode is set to exclusive. In this mode, the mute and dim controls will now affect the headphone output level when headphones are active.
4. Changed the headphone gain option to a variable +/-20dB level offset. This provides the same capability as the gain setting, with the added benefit of being able to calibrate the headphone level to match the speaker calibration. If updating from a previous version, any headphone gain (+10dB,+20dB) will need to be reconfigured as a level offset.

Known Issues:

m905 XMOS:

Version: 1.00
Date: 2/20/2013

New Features / Changes:

1. Initial Release

Known Issues:

1. AES3, S/PDIF and TOSLINK receivers will not lock to a 192kHz source with muted data (all 0) – also called AES Black.
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Version: 1.10
Date: 3/27/2013

New Features / Changes:

1. Added DSD64 (2.8224MHz) via DoP Version 1.1 playback support
2. Added AES dualwire digital input option

Known Issues:

Version: 1.12
Date: 7/16/2013

New Features / Changes:

1. Added selectable USB Audio Stream Formats:
2 Output and 2 Input channels for all sample rates and DSD
2 Output and 10 Input channels for PCM sample rates up to 192kHz and DSD 64.
2. Selection of Audio Stream Formats may be made in the PC USB Audio Driver Control Panel or Apple Audio MIDI Setup
3. Added DSD128 (5.6448MHz) via DoP Version 1.1 playback support
Note that DSD128 via DoP Version 1.1 is not currently supported by Apple OSX because OSX does not support PCM sample rates above 192kHz.
4. DoP encoded DSD 128 cannot be received by the AES3, S/PDIF or TOSLINK inputs.
5. Bug Fix: AES3, S/PDIF and TOSLINK receivers will now lock to a 192kHz source with muted data.

Known Issues:

Version: 1.13
Date: 9/19/2014

New Features / Changes:

1. Added support for receiving 192kHz AES3 from Merging Horus and Hapi devices. These Merging devices exhibit large amplitude cycle jitter in their AES3 outputs. Also, voltage amplitude is low and switching rise time is slow. This presents a greater challenge in decoding the data stream even with a short cable run. Jitter tolerance is now increased in the m905's receiver.

Known Issues:

1. Receiving 192kHz AES3 from Merging devices requires inverting phase of the AES3 cabling or connecting single-ended (S/PDIF input or connect one phase of the AES3 input with the other phase of the input grounded).

Version: 1.16
Date: 2/10/2017

New Features / Changes:

1. Added digital speaker output option support.

Known Issues:

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