



PERFECTWAVE DIRECTSTREAM DAC MK2

RELEASE NOTES

Version 2.6.2
Date 08/01/2023
File image.bin
Fpga1_228_Massive.bin

Description

Added Massive Mountaintop release (FPGA version 228).
Note that the DSD UI firmware image has not changed (still at 2.6.2).

Fixes

- Massive Mountaintop FPGA release
 - Adds 7th order SDM
 - Improvements to FPGA output stage
 - Fixes for clicks and pops

Version 2.6.2
Date 06/05/2023
File image.bin

Description

Firmware 2.6.2 adds intelligent muting to reduce noise issues.

Fixes

- DAC-613 Improve muting algorithm to help with noise issues

Version 2.5.1
Date 04/12/2023
File image.bin
FPGA 208

Description

Firmware 2.5.1 with bundled FPGA Antero release v208.

DSDMK2 release 2.5.1 is a bug fix release that addresses two issues with the v2.5.0 release.

All other features and bug fixes carry over from the v2.5.0 release below.

Fixes

- DAC-591 Fix settings update process when updating to 2.5.0
- DAC-592 Add Balance control from remote

Version	2.5.0
Date	04/11/2023
File	image.bin
	FPGA 208

Description

Firmware 2.5.0 with bundled FPGA Antero release v208.

FPGA release 208 fixes occasional issues with clicks and pops, especially on the USB input.

DSDMK2 release 2.5.0 is a feature release with new features and multiple bug fixes.

New Features

Add Auto mode to Pre-emphasis

The *Pre-Emphasis* menu has a new option “Auto”. This is now the default, but can be over-ridden in the menus and set to Off or On.

- Off – Pre-emphasis is always off and never applied
- On – Pre-emphasis is always on and applied to all audio
- Auto – Pre-emphasis is enabled if the DSDMK2 detects that pre-emphasis is set on the track. This is detected using the CD’s sub-code.


Add I2S polarity menu

In the *Audio Input* menu, there is a new *I2S Polarity* sub-menu. This affects I2S1 and I2S2 inputs and can be used for the following:

- For PCM signals, the data and clocks signals can be inverted

- For DSD signals, the left and right channels can be swapped

Add BitPerfect test

BitPerfect tests are now supported by the DSDMK2. Play the BitPerfect track through any input. When the DSDMK2 detects the BitPerfect signal properly, it will display the BitPerfect icon  on the iconbar. The icon will only display while the track is playing and only for inputs that have the track playing.

BitPerfect test for I2S polarity

A stereo BitPerfect test can also be used to automatically set the PCM I2S polarity. If the BitPerfect track is played through I2S1 or I2S2 inputs, then the DSDMK2 will automatically detect whether the Data and LRCLK lines are inverted and set the I2S Polarity menu items appropriately. The automatic settings can be over-ridden by going into the menus and resetting them to desired values.

Implement trigger and trigger timeout

The Trigger jack on the back of the DSDMK2 can be used to control amplifiers and is now fully enabled. The menu for the *Trigger Timeout* is in the *System* menu. Setting to Off disables the Trigger output signal.

Auto input power off feature request

In the *Audio Input* menu, there is a new *Auto Power* sub-menu. This affects I2S1, I2S2 and USB inputs and allows those inputs to be powered off or on if they are not in use. There are two options “On” and “Auto”:

- In “On” mode, the input will always be powered on. This is the default.
- In “Auto” mode, the input will be powered on when selected as the current input, and powered off otherwise. The exception is if the current input is set to Auto. In that case, any input set to Auto power mode will be turned on, so the unit can detect if an input is plugged in.

Updates to Input Name menus

Input Names in the *Audio Input* section have been updated. New names have been added and multiples of the same name have been removed.

"Bridge" button on remote will select inputs with Bridge related names

There are three name mappings in the *Input Name* menu that relate to streamers or network “bridges.” These are “AirLens”, “Bridge” and “Streamer”. The AirLens is the new PS Audio music streamer.

The DSD MK1 had an option for a built in Bridge, and the Bridge button on the remote would switch to that input if selected. The DSD MK2 does not have an internal Bridge, and the Bridge button on the remote has no effect.

A new feature on the DSD MK2 is that, if an input is renamed to “AirLens”, “Bridge” or “Streamer”, then the Bridge button on the remote will select that input. The order of priority is “Bridge”, “AirLens”,

“Streamer”. The Bridge button will select the first input it finds with one of the three names, in the above order of precedence. So input 5 named “Bridge” will take priority over input 1 named “Streamer”.

Fixes

- DAC-484 Brown outs on DSDMK2
A power “brown out” may cause the analog board to lock. If this happens, going into Idle mode with the front Logo button, and then back out will reset the analog board in many cases (i.e. you may not need to power cycle the unit from the back)
- DAC-524 Check mute in Idle
- DAC-528 Left channel muted when pre-emph turned on
- DAC-534 Volume doesn't change automatically when changing Fixed Volume
- DAC-547 Logo button doesn't wake up from Dim mode
- DAC-564 Display sample rate info even if no input lock
- DAC-571 I2S1/2 power bits are backwards

Version	2.3.6
Date	March 14, 2023
File	image.bin FPGA 198

Description

Bundled Antero Mountaintop release v198 with firmware 2.3.6.

Note that 2.3.6 adds new drivers to support different chips that provide the same functionality. 2.3.6 can be run on any DSD MK2 and will detect the hardware and load the right drivers for your unit.

Fixes

- Added new drivers to support different chipsets in manufacturing

Version	2.3.3
Date	December 14, 2022
File	image.bin fpga1_179_Antero.bin

Description

Bundled Antero Mountaintop release with firmware 2.3.3.

Fixes

- USB audio driver updated to 3.02 – Supports DSD256 over USB
- Improvements to FPGA programming
- FPGA 179 - Antero

Version	2.3.3 - Beta
Date	December 1, 2022
File	image.bin fpga1_179_Antero.bin fpga1_178_Beta.bin

Description

Added DSD256 support for USB input, bug fixes and general performance improvements.

Fixes

- USB audio driver updated to 3.02 – Supports DSD256 over USB
- Improvements to FPGA programming
- FPGA 178
 - Fixes issues with switching inputs rapidly while in auto input mode

Version	2.3.0 - Beta
Date	November 4, 2022
File	image.bin

Description

Original beta release.