

Scope of Work

Firmware Completion Project Santa Monica SM-5 / SM-7

DCN TBD Rev X1



[illegible]



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1 Project Overview

The Kali Santa Monica powered studio monitors will be premium studio monitors that have the ability to set room tuning and / or setup configurations via communication with software running on a network connected PC/Mac.

Firmware is currently in mid-development, and engineer that started the development is unavailable to continue.

2 Purpose

The purpose of this document is to provide sufficient information to complete development of monitor firmware.

3 Scope

This document provides the scope of work for the development of Kali Project Santa Monica firmware. It defines the objectives, deliverables, time line, resources, and requirements for this project.

4 Reference Documents / Sources

- 311000001 Product Requirements Document, SM5 Rev X3
- 300000006_Spec_Firmware_SantaMonica_Rev X6
- Schematics, Kali Santa Monica SM5
- Source Code, Kali Santa Monica SM5

4.1 Order of Precedence

In the event of a conflict between this specification and the references cited herein, the order of precedence shall be this specification, then any reference documents, and finally any appendices

5 Definitions

“Shall” and “Shall not:” denotes that this consideration is critical for the product. These specifications cannot be deviated from.

“Should” and “should not:” denotes that this consideration is important for the product, but can be negotiated if it affects the implementation of other “Shall” and/or “Should”



considerations, or substantially and unnecessarily affects cost. Deviations from these specifications must be specifically approved by Kali Engineering.

“May” and “May not:” denotes that this consideration would be implemented in an ideal product. These considerations shall not interfere with “Should” and/or “Shall” considerations. These specifications can be deviated from without specific approval.

6 Product Hardware

6.1 Micro Controller

The Kali Santa Monica micro controller shall be a STM32F105VCT

6.2 Upgrade MCU

The Kali Santa Monica shall have a MCU for the purpose of FW update. The auxiliary MCU shall be an STM32F030K6.

6.3 DSP

The Kali Santa Monica DSP shall be an ADAU1452

6.4 Ethernet Controller

The Kali Santa Monica Ethernet controller shall be a W5500

6.5 Controls

Software shall communicate with the Kali Santa Monica loudspeakers via wired LAN connection.

6.5.1 Touch Sensor

The Kali Santa Monica shall have a touch sensor located on the woofer trim ring for purposes of firmware function control. A detailed description of the touch sensor and its control functionality is located in the firmware specification listed in section 4 of this document.

6.5.2 Rotary Encoder

The Kali Santa Monica shall have a rotary encoder located on the amplifier panel for purpose of volume control. A detailed description of the volume control and its functionality is located in the firmware specification listed in section 4 of this document.



6.5.3 Dip Switch

The Kali Santa Monica shall have an 8 position dip switch located on the amplifier panel for purposes of tuning preset and trim control. A detailed description of the dip switch and its control functionality is located in the Product Requirements Document and Firmware Specification listed in section 4 of this document.

6.6 Indicators

6.6.1 Front panel LED

The Kali Santa Monica shall have an RGB LED located on front baffle for purposes of status indication. A detailed description of the LED and its functionality is located in the Product Requirements Document and Firmware Specification listed in section 4 of this document.

7 Software Development Deliverables

7.1 Schedule

Project schedule is in flux. Contractor shall work with Kali Project Manager to develop schedule with all milestones and deliverables identified. Schedule shall be updated and agreed to by all parties before work commences.

7.2 Test Plan

Contractor shall provide a full firmware test plan. Test plan shall identify all features and functions to be tested, as well as test method and equipment required. Test plan shall be reviewed and approved by Kali Engineering.

7.2.1 Master Test Plan

TBD

7.2.2 Release Phase Test Plans

TBD

7.3 Firmware Releases

7.3.1 Engineering Verification Release

This shall be a fully functional firmware release with all features for initial FW testing



7.3.1.1 Criteria

This deliverable shall be considered complete when release phase test plan is complete and all identified issues are resolved.

7.3.2 Design Verification Release

This release shall be complete firmware in a release-ready state for product design verification and beta testing.

7.3.2.1 Criteria

This deliverable shall be considered complete when release phase test plan is complete and all identified issues are resolved.

7.3.3 Process Verification / Mass Production Release

This release shall be complete firmware in a release-ready state with all issues identified in Design Verification resolved.

7.3.3.1 Criteria

This deliverable shall be considered complete when release phase test plan is complete and all identified issues are resolved.

7.3.4 MP Update Release(s)

This deliverable shall be considered complete when any running change issue fixes are implemented and tested and any remaining critical issues are resolved.

7.4 Support

Contractor shall provide support for software for 3 month on an as-needed basis. Scope of support shall be bug-fixes only. Additional feature requests are outside the scope of this support. Bug reports shall receive a response within one business day. Bug reports must be submitted through agreed bug tracking system.

8 Project Management

Kali Audio project management shall track progress and deliverables for software development.

8.1 Reporting

Contractor shall communicate project status to project manager on a weekly basis or whenever status is requested.



8.2 Bug Tracking

Issues will be tracked in TBD system agreeable to all parties. All work, both features and bugs, shall have an associated issue tracking ticket, and all communication regarding these issues shall be communicated through the issue tracker, rather than through email.

8.3 Version Control

This project shall use TBD software for version control.

8.4 Software Repository

This project shall use TBD as software repository for all source code deliverables.

8.5 Change of Scope

Any significant changes to the scope of software development defined in this document shall require a change of scope document agreeable to all parties.

8.6 Terms

8.6.1 Inclusions

The scope of work includes complete development of the defined firmware including defined support after product release.

8.6.2 Exclusions

The scope of work does not include any requirements not enumerated in this scope of work or in its supporting documents.

8.7 Payment

TBD

9 Glossary

TBD: To be determined