

N9H26 SD Loader Reference Guide

V1.0

Publication Release Date: May. 2018



The information in this document is subject to change without notice.

The Nuvoton Technology Corp. shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from the furnishing, performance, or use of this material.

This documentation may not, in whole or in part, be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine readable form without prior consent, in writing, from the Nuvoton Technology Corp.

Nuvoton Technology Corp. All rights reserved.



Table of Contents

1.	General Description	4
	•	
2.	SD Loader Overview	5
3.	Revision History	0



General Description

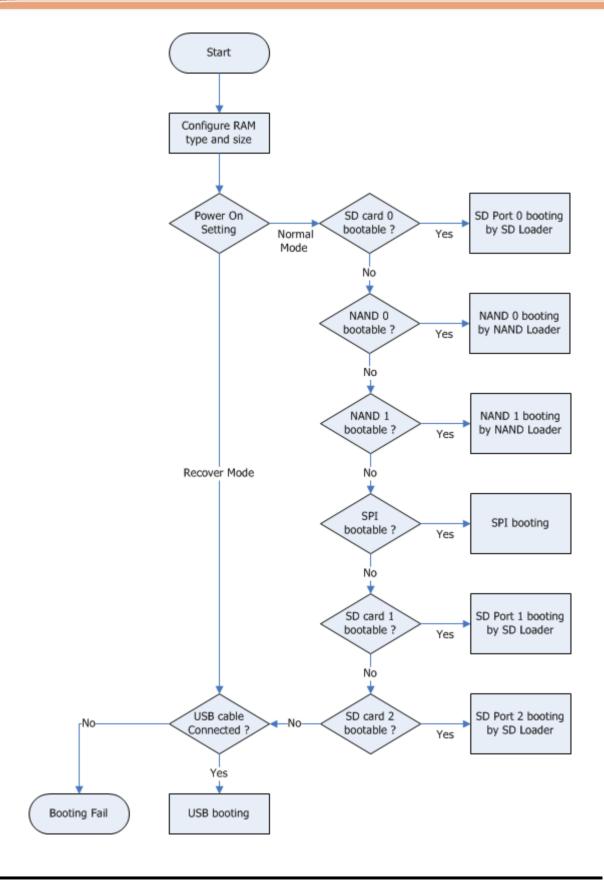
N9H26 Non-OS library consists of a sets of libraries. These libraries are built to access those on-chip functions such as VPOST, SPU, SIC, USBH, USBD, GPIO, I2C, SPI and UART, as well as File System (NVTFAT), USB MassStorage devices (UMAS) and NAND Flash devices (GNAND). This document describes the basic function of SD Loader. With this introduction, user can quickly understand the SD Loader on N9H26 microprocessor.



2. SD Loader Overview

N9H26 built-in 16K bytes IBR (Internal Booting ROM) where stored the boot loader to initial chip basically when power on, and then try to find out the next stage boot loader from different type of storage. It could be SD card, NAND Flash, SPI Flash, or USB storage. The search sequence by IBR as below







The boot loader in IBR will hand over the chip controlling to SD Loader on SD port 0, port 1 or port 2. SD Loader is a firmware stored at SD card.

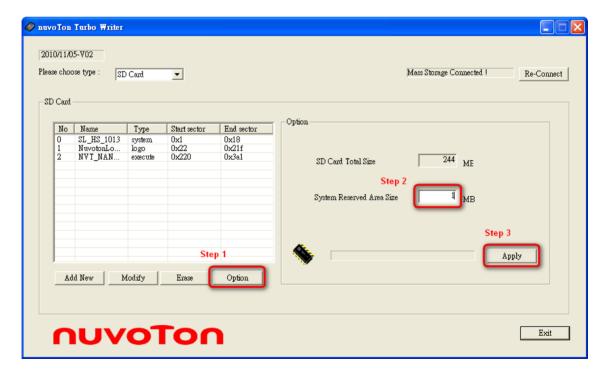
The SD Loader has the following features:

- Initial more modules such as VPOST and so on.
- Check, load, and display Logo image if it existed at SD card.
- Check and load next firmware if it existed at SD card.
- Hand over chip controlling to next firmware. Normally, it should be NVT Loader.

All image files have to located at top of SD card with correct parameters. You can add or modify them by TurboWrite utility. Please follow the configuration below to make sure the SD Loader work fine.

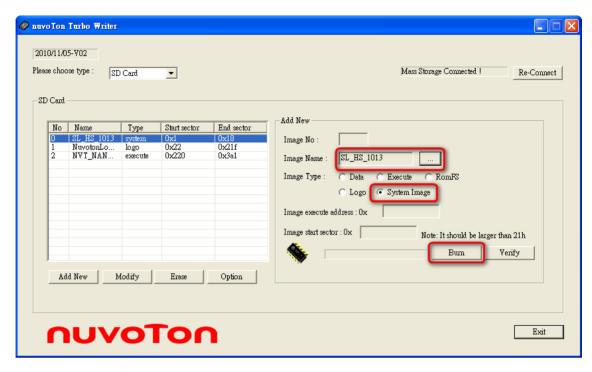
	SD Loader	Logo Image	Next Firmware
Image No.	0	1	2
Image Name	File name for SD Loader on host	File name for Logo image on host	File name for next firmware on host
Image Type	System Image	Logo	Execute
Image execute address	Default value	500000	800000
Image start sector	Default value	Behind SD Loader and MUST > 0x21	Behind Logo Image

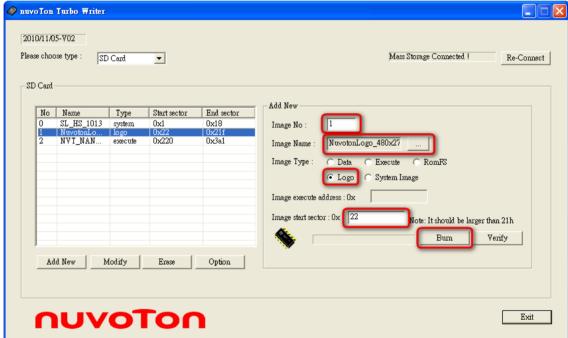
If your SD card is first time to use on N9H26 system, maybe you need a extra step to reserve some sectors for SD Loader used as below.



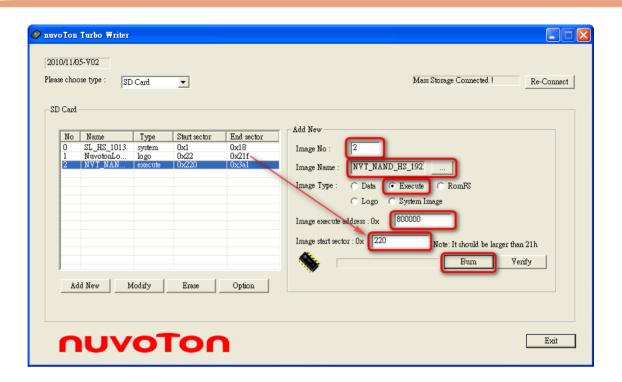
And then, you can upload SD Loader and other image files to SD card.













3. Revision History

Version	Date	Description
V1.0	May, 2018	Created



Important Notice

Nuvoton products are not designed, intended, authorized or warranted for use as components in equipment or systems intended for surgical implantation, atomic energy control instruments, aircraft or spacecraft instruments, transportation instruments, traffic signal instruments, combustion control instruments, or for any other applications intended to support or sustain life. Furthermore, Nuvoton products are not intended for applications whereby failure could result or lead to personal injury, death or severe property or environmental damage.

Nuvoton customers using or selling these products for such applications do so at their own risk and agree to fully indemnify Nuvoton for any damages resulting from their improper use or sales.