

LM983X EEPROM Generator User's Guide

Overview

This software generates a binary ROM file that can be used to program a 24C02 serial EEPROM for use in an LM9832- or LM9833-based scanner.

The screenshot shows the LM983X EEPROM Generator V2.2 software interface. The window title is "LM983X EEPROM Generator V2.2 May 2, 2000". The interface includes the following fields and options:

- Vendor ID (16 bit hex): 0400
- Product ID (16 bit hex): 1000
- Vendor string descriptor: National Semiconductor
- Product string descriptor: LM9831 14 Bit Scanner
- Supports Remote Wakeup: Yes No
- Self Powered Compatibility Bit 7: USB1.0 USB1.1
- Power: Self powered Bus powered
- Max USB Bus Power (mA): 0
- Output Filename: C:\9831EE.bin
- Generate EEPROM File button

Vendor ID

Enter your 16 bit Vendor ID (in hex) into this box.

Product ID

Enter your 16 bit Vendor ID (in hex) into this box.

Vendor String Description

Enter your Vendor String Description into this box.

Product String Description

Enter your Product String Description into this box.

Supports Remote Wakeup

Check "Yes" if your scanner hardware and software supports Remote Wakeup.

Power

Check the appropriate box to indicate if your scanner is self- or bus-powered.

Max USB Bus Power (mA)

If your scanner is bus-powered, enter in the number of mA it requires (usually 500). If your scanner is self-powered, enter 0.

Self Powered Compatibility Bit 7

This controls whether bit 7 of the `bmAttributes` of the Standard Configuration Descriptor is a 0 (USB1.0) or a 1 (USB1.1). The USB1.1 specification says this bit should be set to a 1. Under USB 1.0, it was usually set to a 0.

This is only a concern if you are designing a self-powered device. If you're self-powered and you set this setting to "USB1.1", and you run USBCheck Version 3.2 or lower, the device will be reported as being *both* self- and bus-powered. That seems to be because USBCheck Version 3.2 is still using the USB1.0 spec. If you set this bit to a 0, and you run USBCheck Version 3.2, it reports that you are self-powered only, but you are no longer technically compliant with USB1.1.

The bottom line: Set this to USB1.1 to be compliant with the USB1.1 spec, but be aware that this may make the device come up as self- and bus-powered to software written for the USB1.0 spec.

Output Filename

The path and filename of the binary format ROM image you want to generate.