This application note acts as a user’s guide for FT4233HP/FT2233HP/FT233HP and FT4232HP/FT2232HP/FT232HP DCDC power delivery application users. FT4233HP/FT2233HP supports Power Delivery (PD) standards enabling support for power negotiation with the ability to sink or source current to a USB host device. It can support 9V3A, 12V3A, 15V3A, 20V3A power delivery. For more details, please check datasheet FT4233HP/FT2233HP/FT233HP and FT4232HP/FT2232HP/FT232HP.
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1 Introduction

1.1 DCDC Power Delivery Diagram

![Power Delivery Diagram](image)

**Figure 1 - Power Delivery Diagram**

1.2 Power Delivery Design

Refer to Appendix A – References for design schematics.

1.3 Configuration Parameters

Please refer to [AN_448_FT4233HP_FT2233HP_FT233HP_Configuration_Guide](#) for details.

1.4 EEPROM Settings

Based on the configuration above, and set through programming an external EEPROM using [FT_PROG](#), an FTx233HP/FT233HP will execute power delivery from PD2 (SNK only) to PD1 (SNK/SOURCE).
1.5 GPIO Indicator

<table>
<thead>
<tr>
<th>EEPROM Setting</th>
<th>GPIO Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>9V3A</td>
<td>GPIO0 = GPIO1 = High</td>
</tr>
<tr>
<td></td>
<td>Other GPIO pins are low</td>
</tr>
<tr>
<td>12V3A</td>
<td>GPIO0 = GPIO7* = High</td>
</tr>
<tr>
<td></td>
<td>Other GPIO pins are low</td>
</tr>
<tr>
<td>15V3A</td>
<td>GPIO0 = GPIO6* = High</td>
</tr>
<tr>
<td></td>
<td>Other GPIO pins are low</td>
</tr>
<tr>
<td>20V3A</td>
<td>GPIO0 = GPIO3 = High</td>
</tr>
<tr>
<td></td>
<td>Other GPIO pins are low</td>
</tr>
</tbody>
</table>

Table 1 - GPIO Indicator

Note: Since GPIO6/7 does not exist in FTx232HP/FT232HP, user can use GPIO1-3 to configure with board design.
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Appendix A – References

Document References

AN_448_FT4233HP_FT2233HP_FT233HP_Configuration_Guide
DS_FT4233HP
DS_FT2233HP
DS_FT233HP
FT_PROG EEPROM Programming Utility

Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Terms</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>EEPROM</td>
<td>Electrically Erasable Programmable Read-Only Memory</td>
</tr>
<tr>
<td>GPIO</td>
<td>General Purpose Input Output</td>
</tr>
<tr>
<td>USB</td>
<td>Universal Serial Bus</td>
</tr>
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<table>
<thead>
<tr>
<th>Revision</th>
<th>Changes</th>
<th>Date</th>
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<tr>
<td>1.0</td>
<td>Initial Release.</td>
<td>30-04-2020</td>
</tr>
<tr>
<td>1.1</td>
<td>Updated Release (Updated for FT4233HP support / Updated Figure 1 / Updated Table 1 and added a note).</td>
<td>12-08-2020</td>
</tr>
<tr>
<td>1.2</td>
<td>Minor editorial changes for the new release version.</td>
<td>28-11-2023</td>
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