



Application Note

AN_449

FT4233HP_FT2233HP_FT233HP_FT4232HP_FT2232HP_FT232HP_DCDC_Power Delivery Application Note

Version 1.1

Issue Date: 12-08-2020

This application note acts as a user's guide for FT4233HP / FT2233HP / FT233HP / 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. More details please check datasheet [FT4233HP/FT2233HP/FT233HP](#) and [FT4232HP/FT2232HP/FT232HP](#).

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Future Technology Devices International Limited (FTDI)
Unit 1, 2 Seaward Place, Glasgow G41 1HH, United Kingdom
Tel.: +44 (0) 141 429 2777 Fax: + 44 (0) 141 429 2758
Web Site: <http://ftdichip.com>

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1 Introduction

1.1 DCDC Power Delivery Diagram

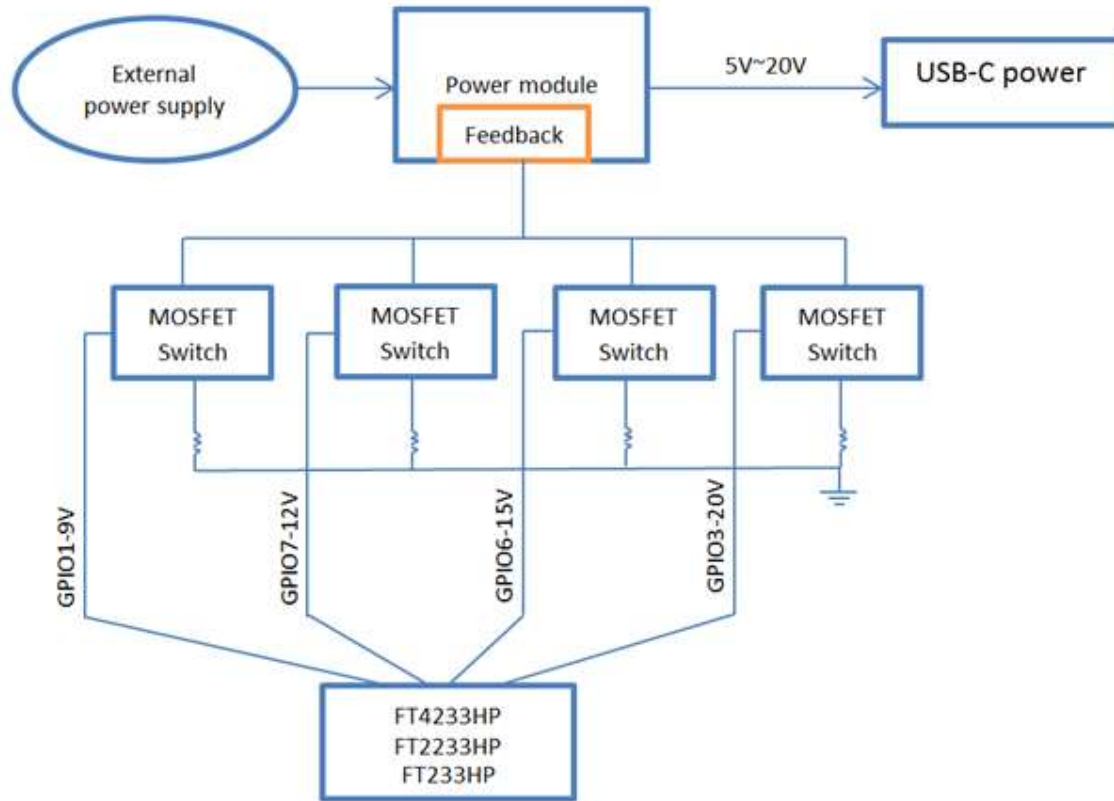


Figure 1 - Power Delivery Diagram

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

EEPROM Setting	GPIO Indicator
9V3A	GPIO0 = GPIO1 = High Other GPIO pins are low
12V3A	GPIO0 = GPIO7* = High Other GPIO pins are low
15V3A	GPIO0 = GPIO6* = High Other GPIO pins are low
20V3A	GPIO0 = GPIO3 = High Other GPIO pins are low

Table 1 - GPIO Indicator

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

2 Contact Information

Head Office – Glasgow, UK

Future Technology Devices International Limited
Unit 1, 2 Seaward Place, Centurion Business Park
Glasgow G41 1HH
United Kingdom
Tel: +44 (0) 141 429 2777
Fax: +44 (0) 141 429 2758

E-mail (Sales) sales1@ftdichip.com
E-mail (Support) support1@ftdichip.com
E-mail (General Enquiries) admin1@ftdichip.com

Branch Office – Tigard, Oregon, USA

Future Technology Devices International Limited
(USA)
7130 SW Fir Loop
Tigard, OR 97223-8160
USA
Tel: +1 (503) 547 0988
Fax: +1 (503) 547 0987

E-Mail (Sales) us.sales@ftdichip.com
E-Mail (Support) us.support@ftdichip.com
E-Mail (General Enquiries) us.admin@ftdichip.com

Branch Office – Taipei, Taiwan

Future Technology Devices International Limited
(Taiwan)
2F, No. 516, Sec. 1, NeiHu Road
Taipei 114
Taiwan, R.O.C.
Tel: +886 (0) 2 8797 1330
Fax: +886 (0) 2 8751 9737

E-mail (Sales) tw.sales1@ftdichip.com
E-mail (Support) tw.support1@ftdichip.com
E-mail (General Enquiries) tw.admin1@ftdichip.com

Branch Office – Shanghai, China

Future Technology Devices International Limited
(China)
Room 1103, No. 666 West Huaihai Road,
Shanghai, 200052
China
Tel: +86 21 62351596
Fax: +86 21 62351595

E-mail (Sales) cn.sales@ftdichip.com
E-mail (Support) cn.support@ftdichip.com
E-mail (General Enquiries) cn.admin@ftdichip.com

Web Site

<http://ftdichip.com>

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Appendix A – References

Document References

[AN_448_FT4233HP_FT2233HP_FT233HP_Configuration_Guide](#)

[DS_FT4233HP](#)

[DS_FT2233HP](#)

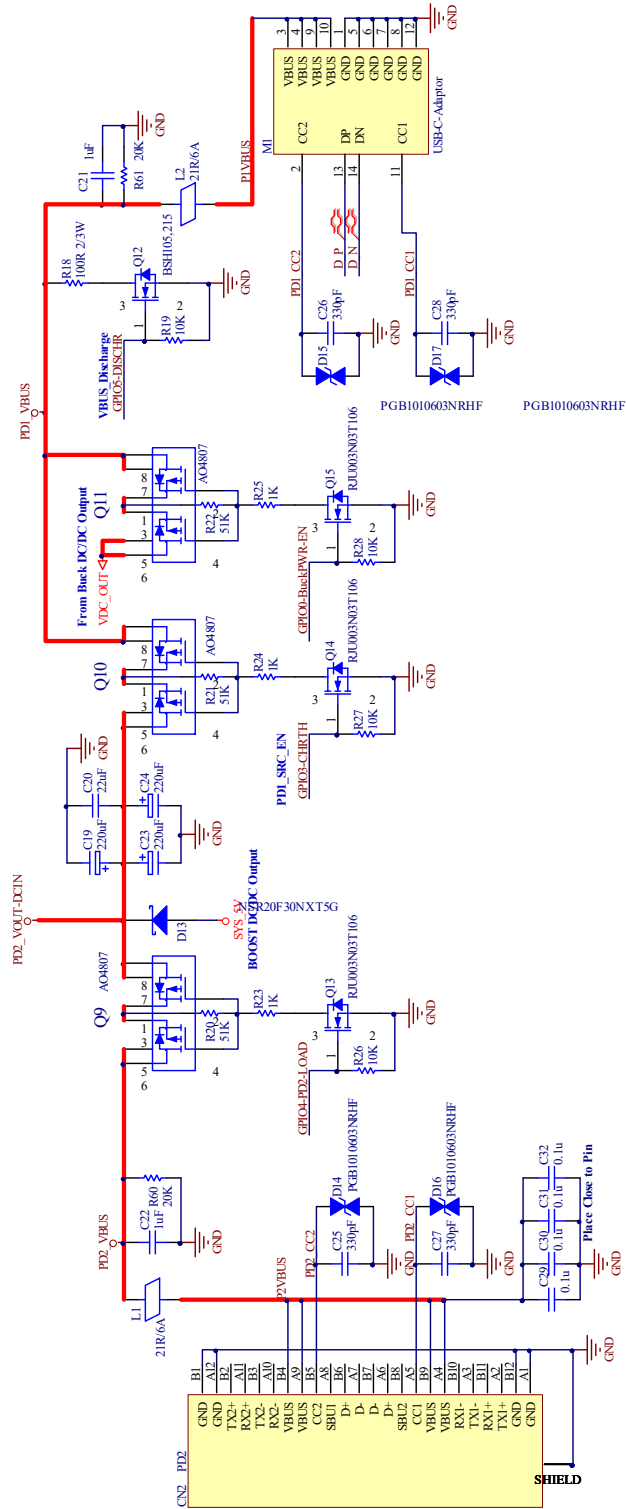
[DS_FT233HP](#)

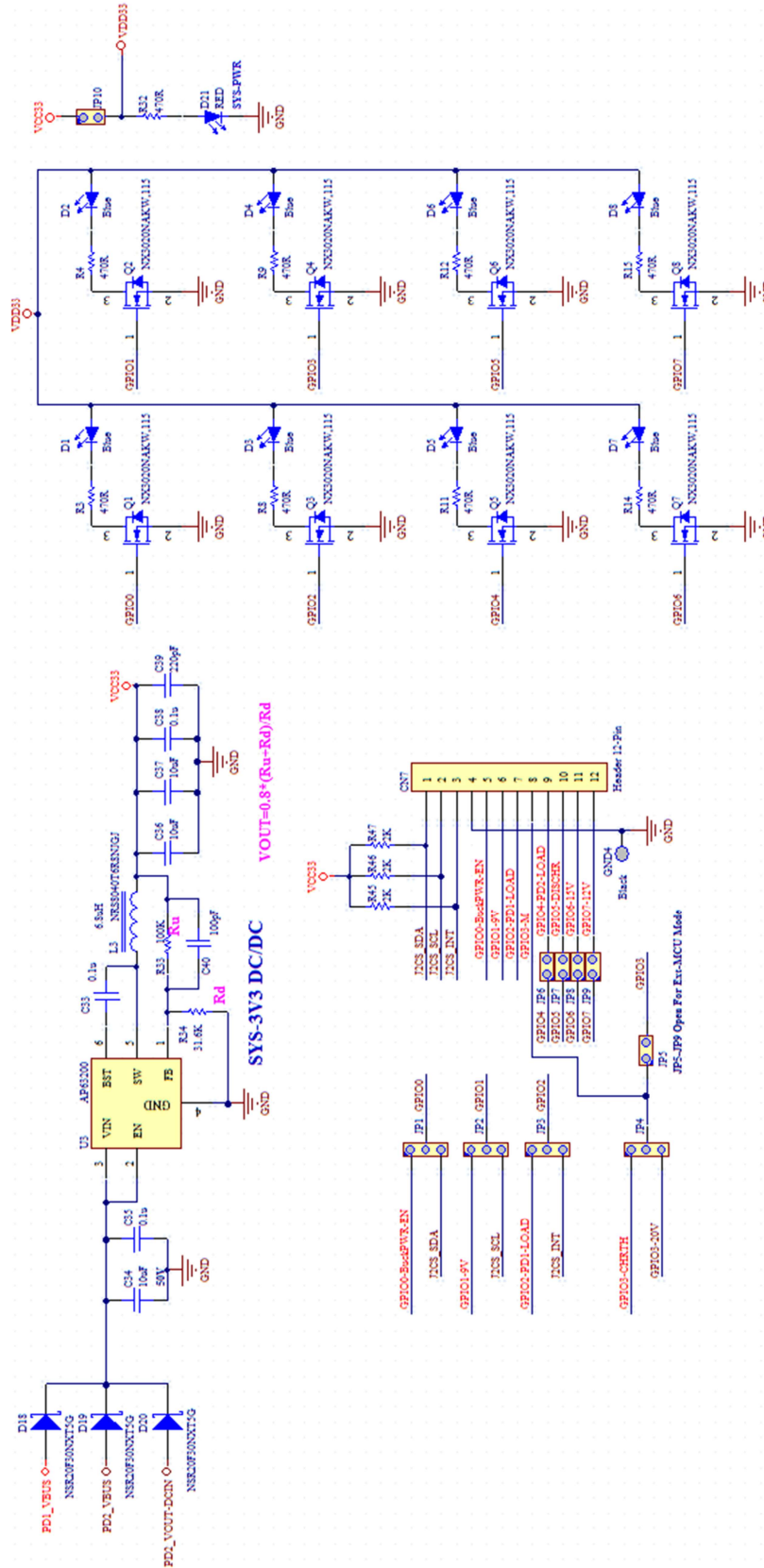
[FT_PROG](#) EEPROM Programming Utility

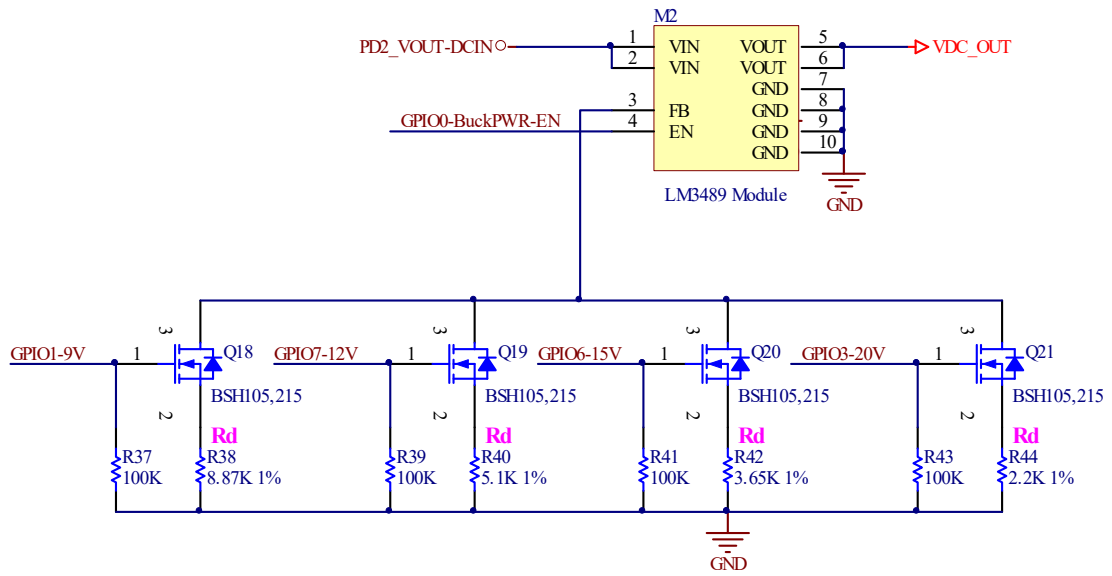
Acronyms and Abbreviations

Terms	Description
EEPROM	Electrically Erasable Programmable Read-Only Memory
GPIO	General Purpose Input Output
USB	Universal Serial Bus

Appendix B – Hardware Design Reference









Appendix C – List of Tables & Figures

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Figure 1 - Power Delivery Diagram 2

Appendix D – Revision History

Document Title: AN_449
FT4233HP_FT2233HP_FT233HP_FT4232HP_FT2232HP_FT232HP_D
CDC_Power Delivery

Document Reference No.: FT_001475

Clearance No.: FTDI#553

Product Page: <http://www.ftdichip.com/FTProducts.htm>

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Revision	Changes	Date
1.0	Initial Release	30-04-2020
1.1	Updated Release (Updated for FT4233HP support / Updated Figure 1 / Updated Table 1 and added a note)	12-08-2020