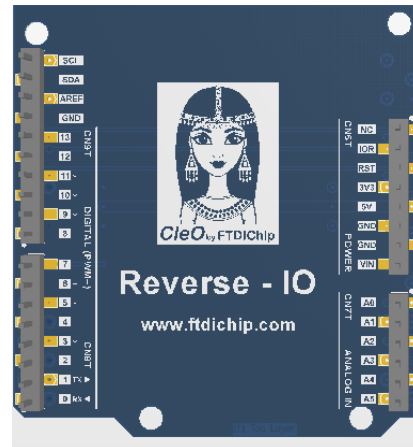


**Future Technology
Devices International
Limited
Datasheet
CleO-RIO Module**



1 Introduction

The CleO-RIO module is an Arduino shield adapter board giving users the flexibility to stack their Arduino board on top of the CleO35 module- the smart TFT Display.

The module is a two layer PCB with dimensions of 57.15mm X 54.35mm

2 Ordering Information

| Part No. | Description |
|-----------|--------------------------------|
| CleO-RIO1 | CleO-Reverse I/O adapter board |

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3 Pin Out and Signal Description

3.1 Module Description

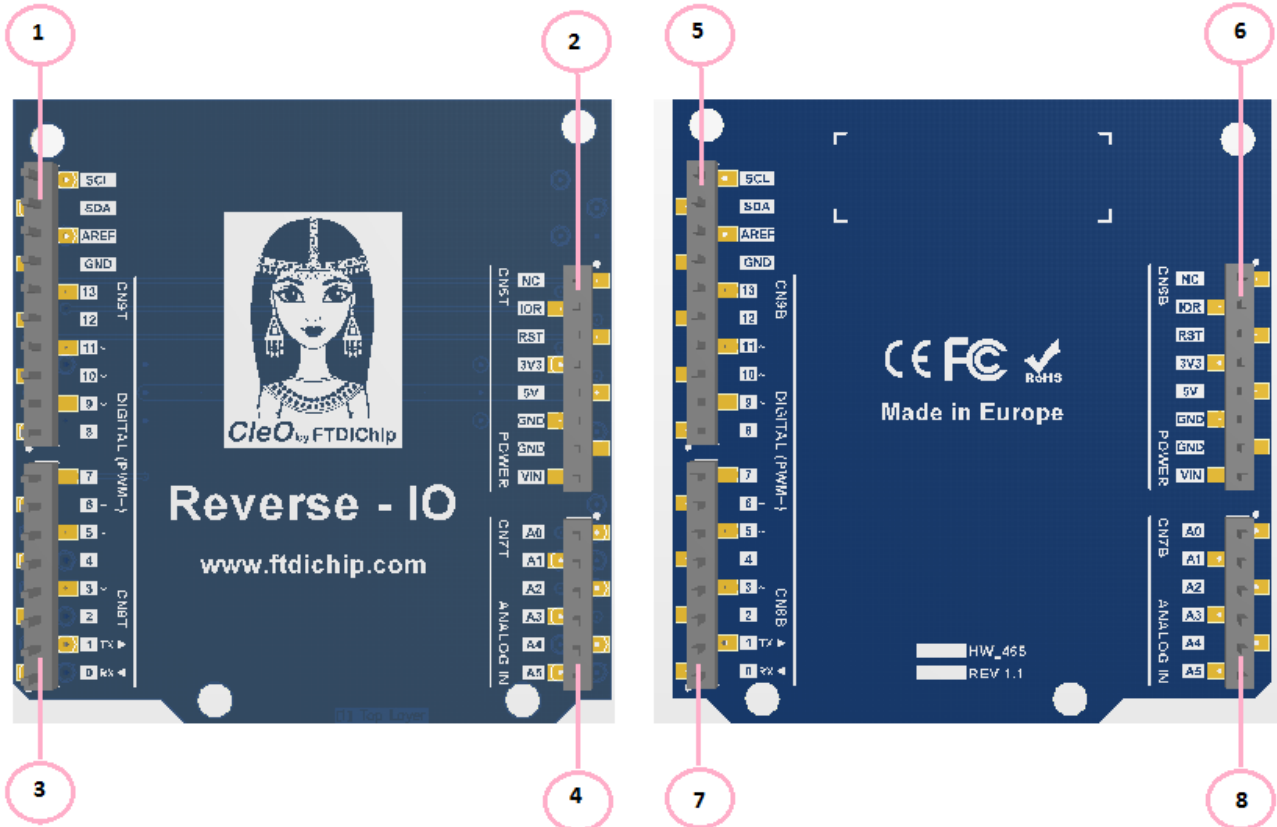


Figure 1 - CleO RIO Module Features

| No | Feature | Reference Designator |
|----|---------------------------------------|----------------------|
| 1 | 1x10 position 2.54mm pitch SMT header | CN9T |
| 2 | 1x8 position 2.54mm pitch SMT header | CN6T |
| 3 | 1x8 position 2.54mm pitch SMT header | CN8T |
| 4 | 1x6 position 2.54mm pitch SMT header | CN7T |
| 5 | 1x10 position 2.54mm pitch SMT header | CN9B |
| 6 | 1x8 position 2.54mm pitch SMT header | CN6B |
| 7 | 1x8 position 2.54mm pitch SMT header | CN8B |
| 8 | 1x6 position 2.54mm pitch SMT header | CN7B |

Table 1 - CleO RIO Module Features Description

3.2 Module Signal Description

The pin description of **CN9T** and **CN9B** is the same and is given in Table 2.

| Pin No | Pin Name | Description |
|--------|----------|---------------------------|
| 1 | - | NC |
| 2 | - | NC |
| 3 | D10 | SPI Chip select option3 |
| 4 | MOSI | SPI data from master side |
| 5 | MISO | SPI data to master side |
| 6 | SCK | SPI clock |
| 7 | GND | Ground |
| 8 | - | NC |
| 9 | - | NC |
| 10 | - | NC |

Table 2 - CN9T and CN9B Pin Description

The pin description of **CN8T** and **CN8B** is the same and is given in Table 3.

| Pin No | Pin Name | Description |
|--------|----------|--------------------------------------|
| 1 | - | NC |
| 2 | - | NC |
| 3 | D2 | FT903 Interrupt request out option 1 |
| 4 | D3 | FT903 Interrupt request out option 2 |
| 5 | - | NC |
| 6 | D5 | SPI Chip select option1 |
| 7 | - | NC |
| 8 | D7 | SPI Chip select option2 |

Table 3 - CN8T and CN8B Pin Description

The pin description of **CN6T** and **CN6B** is the same and is given in Table 4.

| Pin No | Pin Name | Description |
|---------------|-----------------|-----------------------------------|
| 1 | - | NC |
| 2 | IOREF | IO reference voltage supply input |
| 3 | RESET | FT903 reset signal |
| 4 | - | NC |
| 5 | VDD_5V | 5V Supply |
| 6 | GND | Ground |
| 7 | GND | Ground |
| 8 | - | NC |

Table 4 - CN6T and CN6B Pin Description

4 Board Schematic

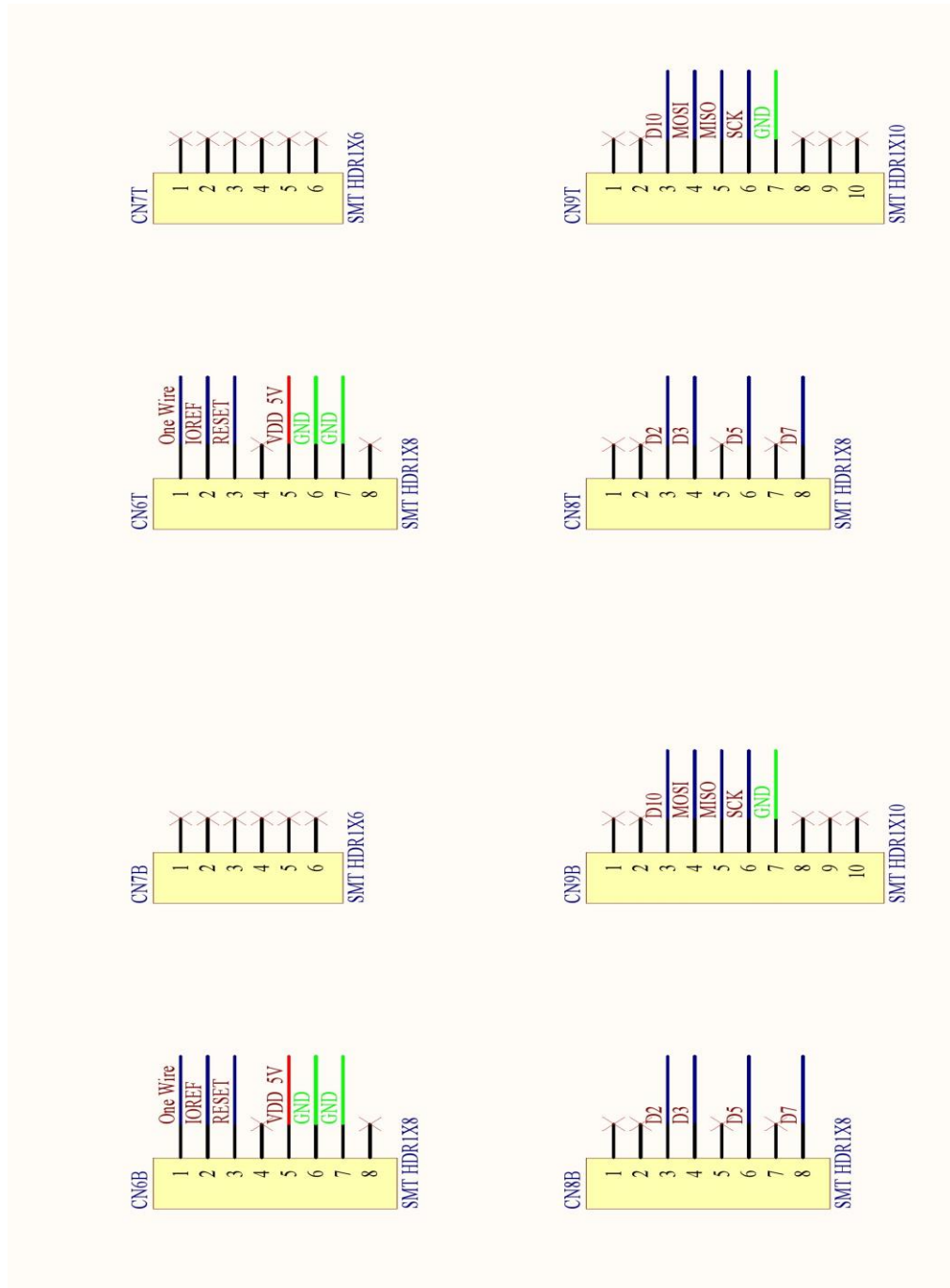


Figure 2 - Reverse I/O Schematic

5 Mechanical Dimensions

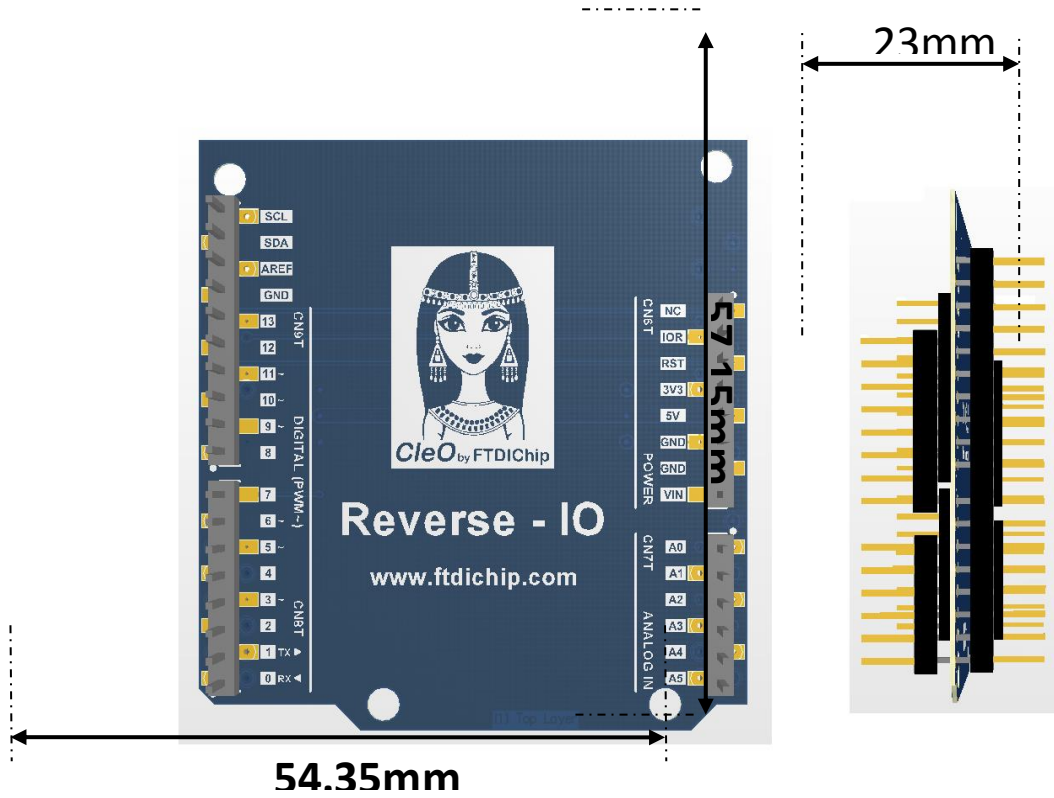


Figure 3 - CleO RIO Module Dimensions

6 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

Acronyms and Abbreviations

| Terms | Description |
|--------------|-----------------------------|
| TFT | Thin Film Transistor |
| SPI | Serial Peripheral Interface |
| SMT | Surface Mount Technology |

Appendix B - List of Figures and Tables

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Appendix C – Revision History

Document Title: CleO- RIO Module Datasheet
Document Reference No.: FT_001310
Clearance No.: FTDI#495
Product Page: <http://www.ftdichip.com/Products/Modules/CleO.htm>
Document Feedback: [Send Feedback](#)

| Revision | Changes | Date |
|-------------|-----------------|------------|
| Version 1.0 | Initial Release | 2016-04-20 |



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Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.