

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



1 Introduction

The CleO-Speaker module is a speaker accessory for the CleO series –The Smart TFT Display for Arduino. It consists of a 0.5W 8 OHM speaker driver preinstalled inside a black speaker.

With the CleO-Speaker module, users can playback music/tones whenever their CleO application requires it. There is also an audio line in capability provided to allow users to input audio from an external source to CleO's on board speaker amplifier.

2 Ordering Information

Part No.	Description
CleO-SPK1	CleO-Speaker , 8 OHM 0.5 W speaker driver in black bezel, with 30.5cm long cable terminated with 1X4 position 2mm pitch housing

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3 Module Technical Specification

3.1 Technical Data

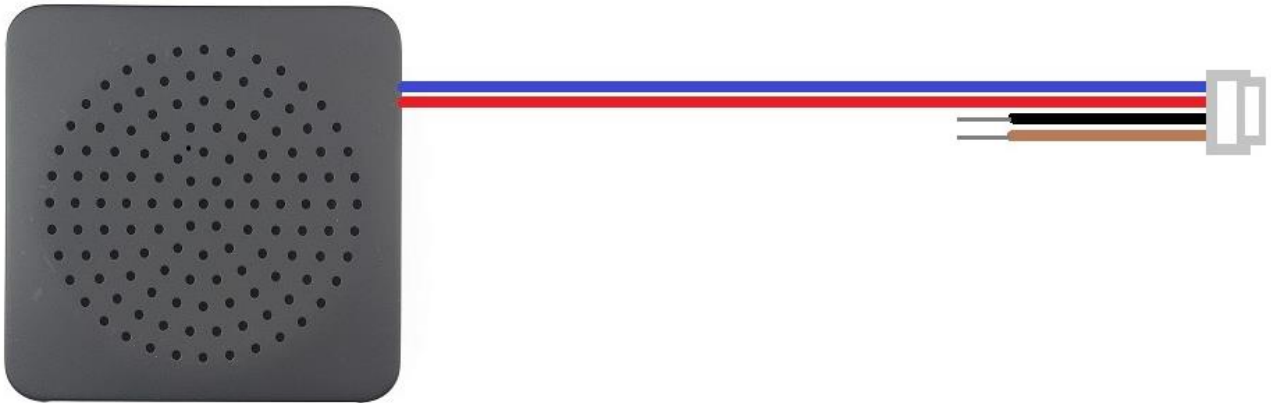


Figure 1 - CleO Speaker

1	FTDI Part Number	Cleo-SPK1
2	Dimension	63(W)X63(L)X23.8(D) MM
3	Norminal Impedance	8 OHM \pm 15 %
4	Norminal power	0.5W
5	Rated Power	1W
6	Resonance Frequency (FO)	400Hz \pm 20% Hz
7	Output SPL	87dB \pm 3dB /1Watt 0.5Meter
8	Cable length	30.5CM
9	Housing Used	JST ZHR -4

Table 1 - Technical Data

See the **Table 2** for the cable pin out definition

Pin No	Pin Description	Cable Colour
1	Speaker Negative Terminal	Blue
2	Speaker Positive Terminal	Red
3	Ground	Black
4	External Line In	Brown

Table 2 - Pin Out Definition

3.2 Typical Performance Characteristics

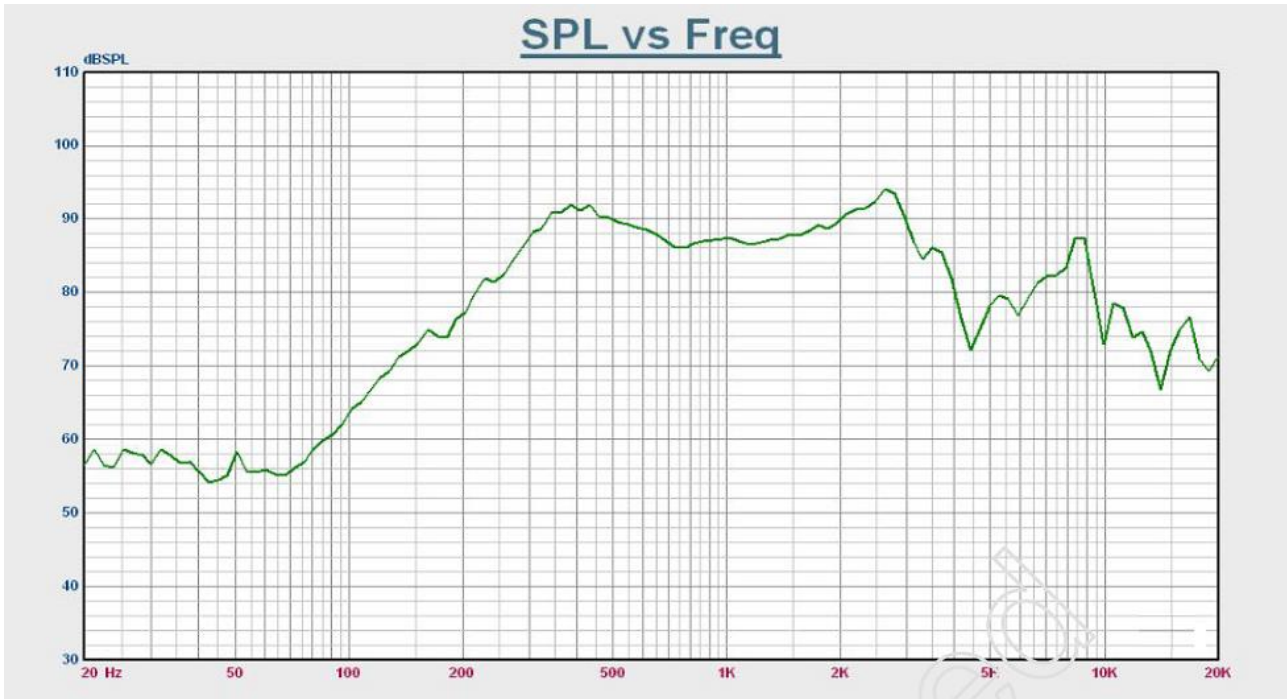


Figure 2- SPL Vs Frequency Curve

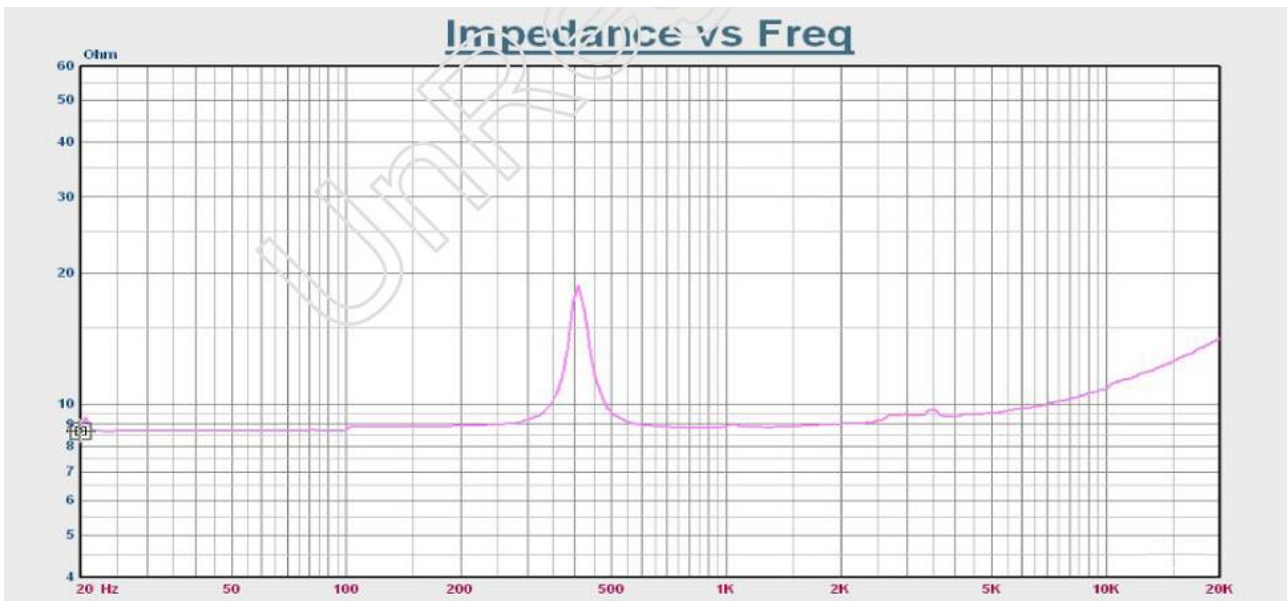


Figure 3 - Impedance Vs Frequency Curve

4 Mechanical Dimensions

4.1 Speaker Module Dimension

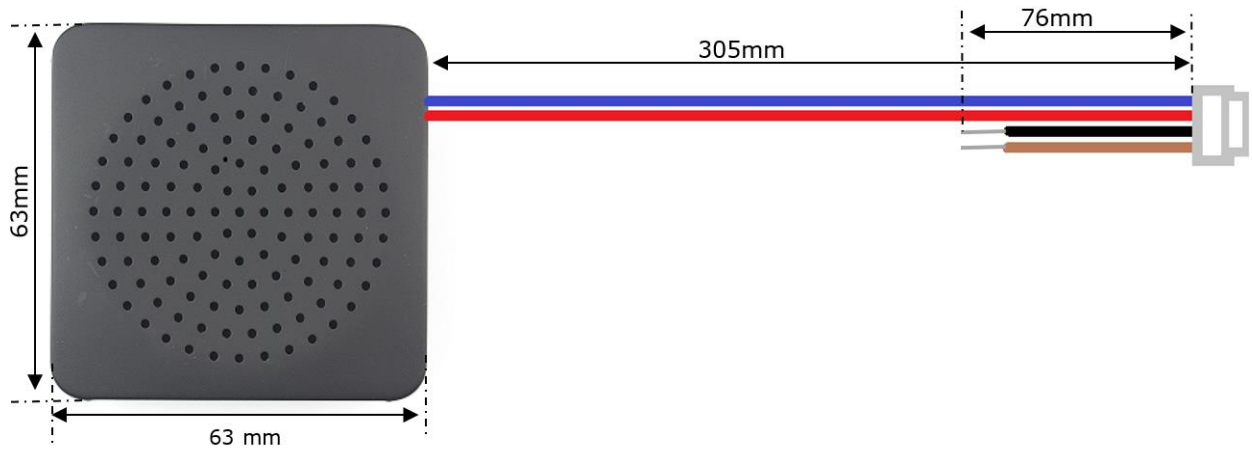


Figure 4 - CleO Speaker Module Dimensions

5 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
SPL	Sound Pressure Level

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Appendix C – Revision History

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Document Feedback: [Send Feedback](#)

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Version 1.0	Initial Release	2016-04-21