NightShade Electronics

Signal Vizualizer – Trēo™ Module

Module Features

- Displays Signal States of Each Line
- RoHS Compliant
- Software Library
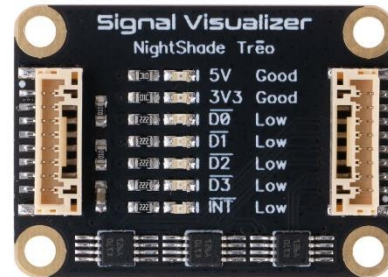- NightShade Trēo™ Compatible
- Breakout Headers

Trēo™ Compatibility

Electrical

Communication	I2C
Max Current, 3.3V	1mA
Max Current, 5V	5mA

Mechanical

- 25mm x 25mm Outline
- 20mm x 20mm Hole Pattern
- M2.5 Mounting Holes

Description

The Signal Visualizer is attached inline with another Trēo module. All the signals pass through the Signal Visualizer unaltered and the LEDs indicate the state of each of the power and signal lines. The 5V and 3V3 LEDs illuminate when the power on those lines is present. The $\overline{D0} - \overline{D3}$ and $\overline{INT}$ LEDs illuminate when the lines are in an active state (LOW). This module is a part of the NightShade Treo system, patent pending.

Table of Contents
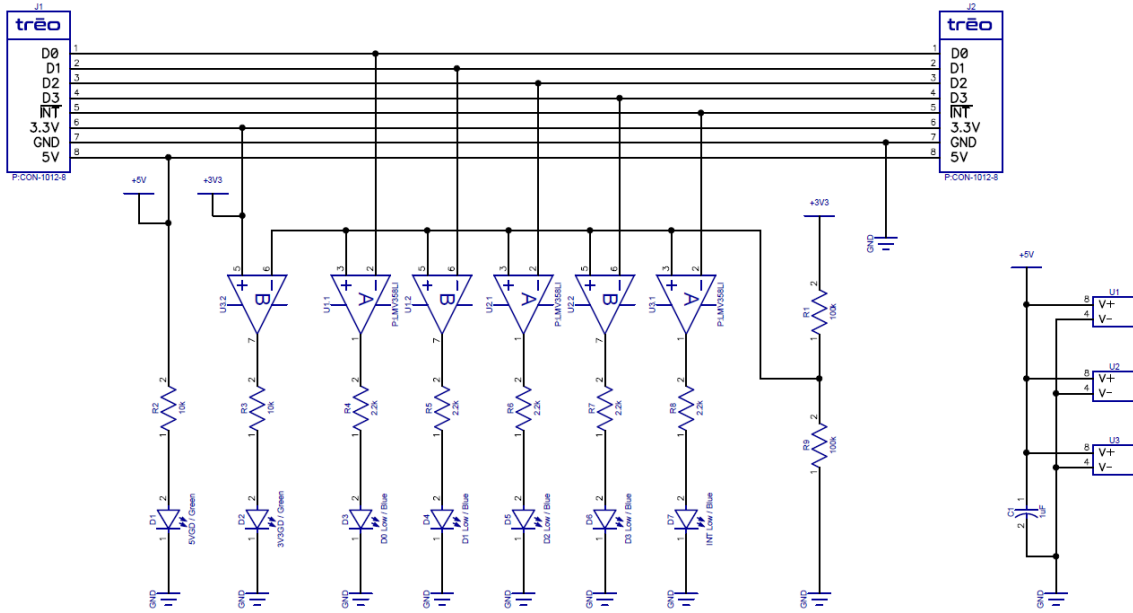
1   What is Trēo™?

NightShade Trēo is a system of electronic modules that have standardized mechanical, electrical, and software interfaces. It provides you with a way to quickly develop electronic systems around microprocessor development boards. The grid attachment system, common connector/cabling, and extensive cross-platform software library allow you more time to focus on your application. Trēo is supported with detailed documentation and CAD models for each device.

Learn more about Trēo [here](#).

2   Electrical Characteristics

	Minimum	Nominal	Maximum
Voltages			
$V_{i/o}$ (SDA, SCL, INT)	-0.3V	-	3.6V
$V_{3.3V}$	3.1V	3.3V	3.5V
V_{5V}	4.8V	5.0V	5.2V
Measurement			
Bandwidth	0.05Hz	-	1600Hz
Range	-16g	-	+16g
Precision			
Error			
Operating Temperature	-25°C	-	+85°C

3 Electrical Schematic

The LED indicators for signal lines
D0 - D3 & INT are active LOW.

4 Mechanical Outline