Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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Servo Expansion Board for Onion Omega

DEV-14445

Description

The Servo Expansion Board adds 16 PWM (Pulse Width Modulation) outputs to your Omega. With this expansion, you will be able to get started with your project quickly by connecting standard servos directly to the onboard 3-pin connectors. You can use this little board for anything with moving parts, such as robotics or driving DC motors. You can also make a light show with LEDs by controlling their brightness!

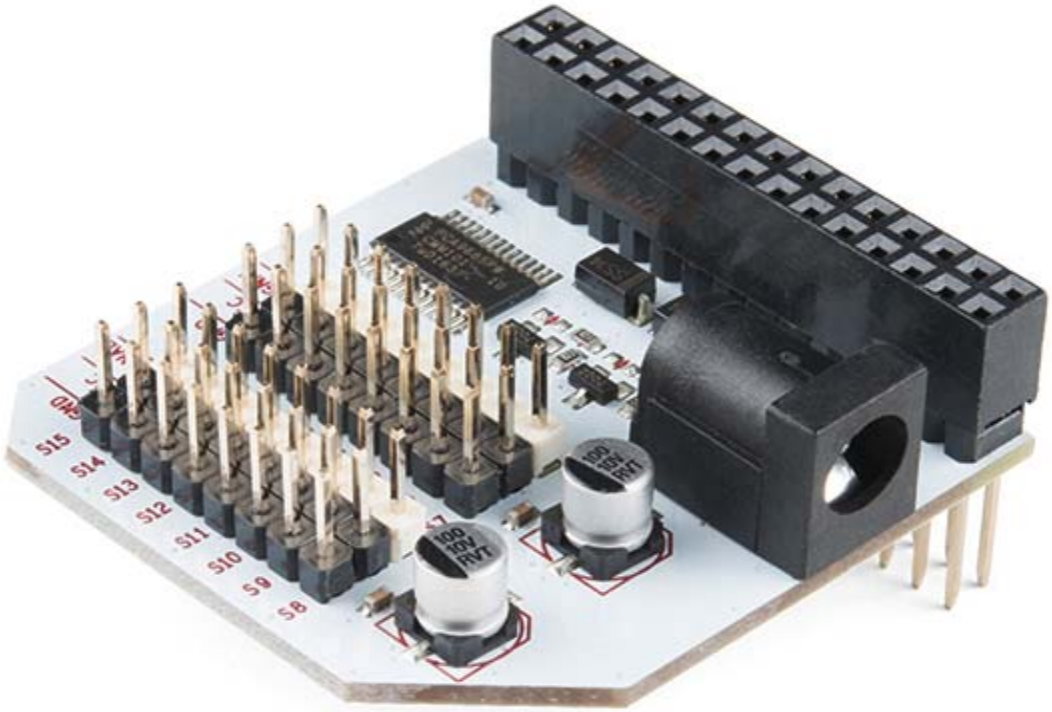
Each Servo Expansion Board has a built-in oscillator that is used to generate PWM signals with frequencies in the range of 24Hz to 1526Hz. The generated PWM signals are free running, so once you set the desired duty cycle of a channel, the signal will be continuously generated without any further commands. Each of the PWM channels are programmed independently to desired duty cycles or all at once to the same duty cycle. A single command can disable the oscillator's output to quickly disable all of the PWM outputs at once.

Power the Servo Expansion by plugging it into a dock that will supply 5V to the 16 PWM channels, which should be enough power for a multitude of LEDs or a few servos under a light load. If you're using more than two servos or a few really powerful one, there is an included DC barrel jack adapter on the expansion board to accept a separate power supply. The PWM signal will be stepped up to the voltage coming in from the barrel jack. The Omega and dock's 5V line is isolated from the DC barrel jack for protection, so you'll still have to provide power to your Omega.

The Onion Omega boards we carry are separated into three different categories: Mainboard, Dock and Expansion Board. This board falls into the Expansion Board category, meaning you will **need** an Omega Dock that is equipped with a 30-pin Expansion Header like the Expansion Dock or Arduino Dock R2.

Features

- Number of Channels: 16
- PWM Signal Resolution: 12 bits resulting in a 4.9usec resolution at 50Hz
- Minimum PWM Signal Frequency: 24Hz
- Maximum PWM Signal Frequency: 1526Hz
- 30-pin Expansion Pins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S14
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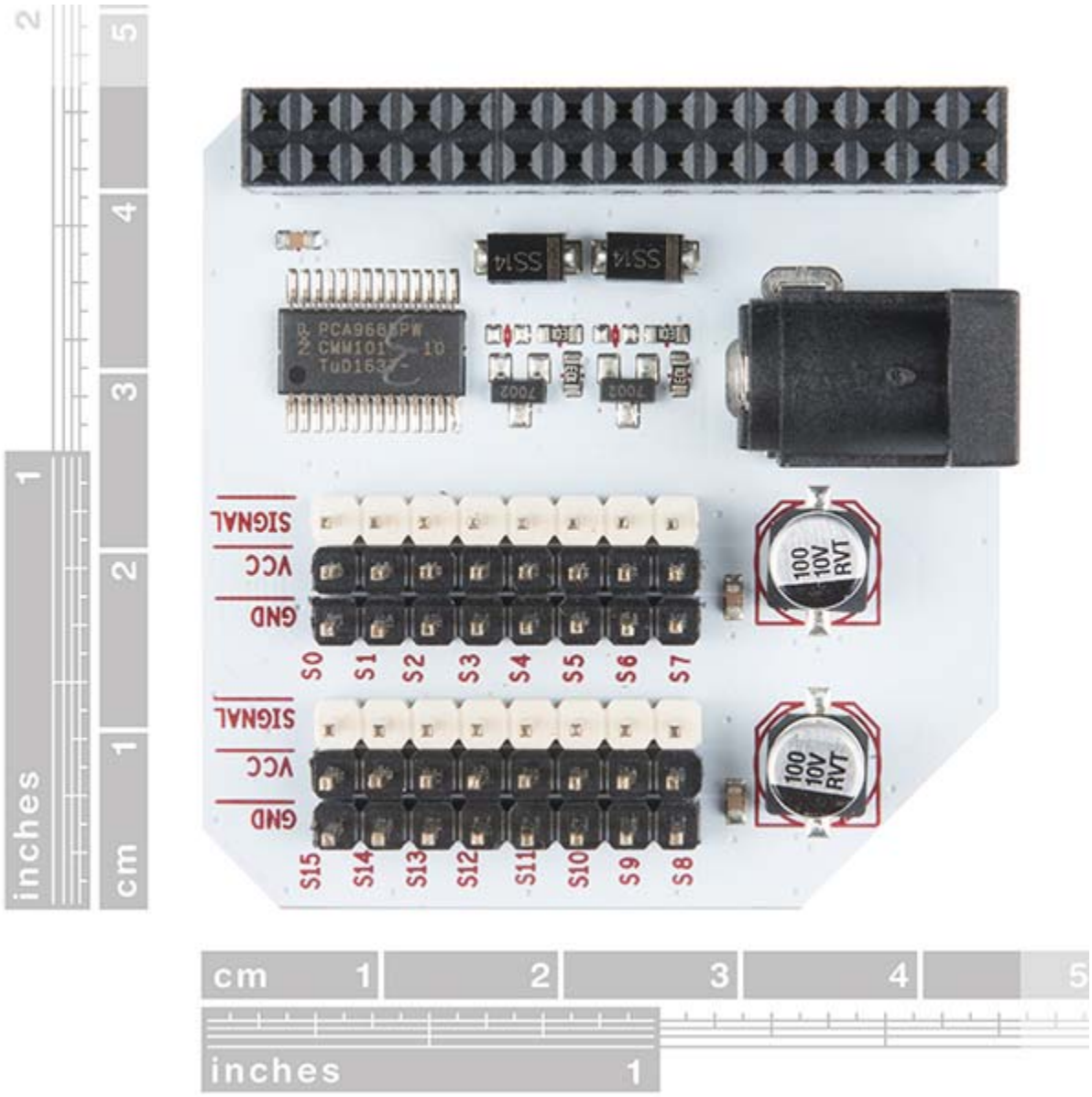

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