# imall

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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## myParts Kit from Texas Instruments: Companion Parts Kit for NI myDAQ

SKU: 6002-240-001



### **Product Description**

Get your students quickly involved in building essential electronic circuits using myParts Kit supported by the Texas Instruments<sup>®</sup> University Program.

The set of key components in the myParts Kit encourages hands-on experimentation with breadboards of basic circuitry, helping to make learning productive and enjoyable for beginners and more advanced students alike. Hobbyists and independent developers will also find the kit useful for investigating their design concepts.

The kit comes with a collection of parts that are the building blocks of all electronics, including op-amps, an instrumentation amplifier, a comparator, voltage regulators, switching regulators, digital logic gates, timers, temperature sensors, data converters, transistors, resistors, capacitors, LEDs, switches, a wiring kit and more. myParts Kit enables your students to run experiments that help them understand real-life applications in areas such as power management, audio amplification, spinning motors, light detection, signal conditioning, data acquisition, and telecommunications to name a few. Projects that can be built with the kit include:

Inverting and non-inverting amplifiers Filters Voltage followers Regulators Signal conditioning Pulse-width modulated (PWM) signal generators Integrators Differentiators Light detectors Data converters

...and many others.

#### Note:

Fits well with other tools:

The kit is a great complement to the NI myDAQ and ELVIS tools, as well as the Digilent Electronics Explorer Board, for hands-on learning both inside and outside of the lab. Students can use the simulation software that is already available in school to simulate results before building their circuits. In addition, if your school uses NI Multisim, you have the capability of pulling many of these TI devices into a design.

myParts Kit can help get your students ready to launch specialized advanced projects in renewable energy, biomedical and robotics and automation, to name only a few applications. For these systems, students can turn to the wide portfolio of semiconductor products that TI offers, including microcontrollers, processors, wireless connectivity solutions, power management, data conversion, amplifiers, and logic. Many of the analog devices are supported by educational kits available through TI's University Program, such as the Analog System Lab Kit PRO, which helps you learn the essential analog building blocks of an electronics system.

#### Features:

Op-amps:

Op-amp: TL072CP Op-amp: TL074CN Op-amp: LF356 Op-amp: LM741C Instrumentation Amp: INA217 Comparator: LM311P

**Regulators:** 

1.5A boost/buck/inverting switching regulator: MC34063AP Voltage regulator: LM317 (TO-220)

Logic ICs:

NAND: triple 3 input (SN74LS10N)

NAND: quad 2 input (SN74LS00N) OR: quad 2 input (SN74LS32N) XOR: quad 2 input (SN74LS86N) NOR: quad 2 input (SN74LS02N) AND: quad 2 input (SN74LS08N) Inverter buffer/driver: SN74LS04N Hex Counter, 4-bit: SN74LS163N Dual JK flip-flop: SN74LS107AN D type dual flip-flop: SN74LS107AN Decoder/encoder/mux: CD4511BE 3 to 8 decoder/demux: SN74LS138N 8 to 3 encoder: SN74LS148 Dual complementary pair/inverter: CD4007UB Timer: TLC555CP

#### Converters:

Freq to V converter: LM2917N/NOPB A/D converter, 12-bit: ADS7816P A/D converter: ADS7822P D/A converter, 12-bit: TLV5616CP

#### Diodes:

Zener diode: 1N4735 Small signal diode: 1N3064 Fast switching diode: 1N914B 1A Shottky diode: 1N5819 1A rectifier diode: 1N4001 Infrared receiver diode Infrared emitter diode

#### Resistors:

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¼ W, 1.5 kΩ, ±5% ¼ W, 2.2 kΩ, ±5% ¼ W, 3.3 kΩ, ±5% ¼ W, 4.7 kΩ, ±5% ¼ W, 5.6 kΩ, ±5% ¼ W, 10 kΩ, ±5% ¼ W, 15 kΩ, ±5% ¼ W, 20 kΩ, ±5% ¼ W, 22 kΩ, ±5% ¼ W, 33 kΩ, ±5% ¼ W, 47 kΩ, ±5% ¼ W, 68 kΩ, ±5% ¼ W, 100 kΩ, ±5% ¼ W, 200 kΩ, ±5% ¼ W, 470 kΩ, ±5% ¼ W, 1 MΩ, ±5% ¼ W, 10 MΩ, ±5%

**Power Resistors:** 

10W, 6.8 Ω, ±5%

Potentiometers:

¾ W, 1 kΩ, ±10%: 3006P-102
¾ W, 10 kΩ, ±10%: 3006P-103
¾ W, 100 kΩ, ±10%: 3006P-104

Ceramic Capacitors:

39 pF (x2) 100 pF (x2) 1 nF (x2) 2.2 nF (x2) 4.7 nF (x2) 10 nF (x4) 47 nF (x2) 100 nF (x2)

Electrolytic Capacitors:

1 uF, 50V (x2) 4.7uF, 50V (x2) 10 uF, 50V (x2) 22 uF, 25V (x2) 47 uF, 25V (x2) 220 uF, 25V, ±20% (x1) 470 uF, 25V, ±20% (x2)

Transistors:

P-channel MOSFET (x4): ZVP2110A NPN transistor (x3): 2N3904L PNP transistor (x3): 2N3906L NPN bipolar power transistor: TIP31C PNP bipolar power transistor: TIP32C N-channel power MOSFET: IRF510 Compl. transistor pair: STD815CP40 or STD830CP40 Dual NPN high voltage transistors: STD845DN40 or STD840DN40

LEDs:

Red (x2) Yellow (x2) Green (x2)

Misc:

Audio transformer Photocell buzzer Light sensor Wiring kit

https://store.digilentinc.com/myparts-kit-from-texas-instruments-companion-parts-kit-for-ni... 7/1/2016