

BASILISK ANALOG-HYBRID GENERATIVE BASSLINE SYNTHESIZER

QUICK START CONSTRUCTION GUIDE

The kit is quite simple, but there are some important things to know before starting.

POLARISED COMPONENTS

Components with a polarity will only work if they are inserted in the correct orientation. Incorrect placement will cause them to not work correctly, and...

IN SOME CASES THIS WILL DESTROY THE COMPONENT!

- Illuminated switches SW1 SW6 (coloured leg towards inside)
- 100uF Electrolytic capacitors C2, C4, C6 (long-leg to +)
- BC337 transistor & LM336Z (don't mix these up check the label!)
- Resistor network RN471 and RN104
- Diode D1-D7
- Arduino Nano
- All ICs (MAX7221, MCP6004, MCP4251-103 & 104, CD74HC165
- 8x8 LED Matrix

All other components can be inserted any orientation, or the PCB will only allow the correct orientation.

ALIGNMENT WITH FRONT PANEL

To ensure the interface components align with the holes in the front panel, it is good practice to place them firmly into the PCB and then...

TEST-FIT THE FRONT PANEL BEFORE SOLDERING

Even small misalignment of these components can make things not fit together during assembly or can make knobs and switches fail to function smoothly.

- Switches SW1-SW6
- Potentiometers
- 3.5mm jacks
- LED matrix
- Filter mode switch

ARDUINO NANO PINS

To enable the Arduino Nano to fit into the DIP30 socket, the legs must be shorter than a standard Nano. The best way to do this is to insert the long-ends of the pin header into the Nano, then trim the excess from the top-side of the Nano.

IMPORTANT - SOLDERING TEMPERATURE & CLEANING

Some components are sensitive to overheating. Be careful not to apply heat for too long, otherwise switches and knobs may not operate correctly. When cleaning the PCB, be careful not to let fluid residue into the switches or they will not work well. If this happens, use contact cleaner to flush out residue.



DETAILED INSTRUCTIONS / DETAILLIERTE ANLEITUNG / INSTRUCCIONES DETALLADAS / INSTRUCTIONS DÉTAILLÉES

Detailed construction and operations manuals are available at wireheadinstruments.com/support-basilisk

WIREHEAD BASILISK - BILL OF MATERIALS - PCB V1.1+

Resistor THT 103 10k	Part	Count	Description		
Resistor THT 103 10k	Resistors				
Resistor THT 104 100k	R102	3	Resistor THT 102 1k		
Resistor THT 105 1M	R103	2	Resistor THT 103 10k		
R204 3 Resistor THT 204 200K R392 2 Resistor THT 392 3K9 R822 1 Resistor THT 822 8K2 Resistor Network Arrays RN104 1 Resistor Array 100k 9pin RN471 1 Resistor Array 470 9pin Capacitors 100n ceramic capacitor C104CER 7 100n ceramic capacitor C107ELEC 3 100u electrolytic capacitor (bigger) DON'T MIX THESE UP! C333MON 2 2u2 monolithic capacitor (smaller) READ THE LABEL! C472CER 1 4n7 ceramic capacitor (smaller) READ THE LABEL! C472CER 1 4n7 ceramic capacitor (smaller) READ THE LABEL! LM336Z-2.5 1 LM336 Voltage Regulator 2.5V TO92 DON'T MIX THESE UP! RC337TO92 1 NPN Transisitor TO92 READ THE LABEL! Electromechanical PTV09A-4025U-B103 10 Bourns 10K 20% 9MM 25mm shaft 40-knurl T5-22E01AT15 1 TS22 Baton Toggle Switch SK12D07 1 Mini Toggle Switch DIPSKT14 3 14-pin DI	R104	2	Resistor THT 104 100k		
Resistor THT 392 3K9 Resistor THT 392 3K9 Resistor Network Arrays Resistor Network Arrays Resistor Network Array Resistor Array 100k 9pin RN104 Resistor Array 170 9pin RN471 Resistor Array 470 9pin RN471 RN471 RN471 Resistor Array 470 9pin RN471 RN471	R105	3	Resistor THT 105 1M		
R822 1 Resistor THT 822 8K2 Resistor Network Arrays RN104 1 Resistor Array 100k 9pin RN471 1 Resistor Array 470 9pin Capacitors C104CER 7 100n ceramic capacitor C107ELEC 3 100u electrolytic capacitor (bigger) DON'T MIX THESE UP! C333MON 2 33n monolithic capacitor (smaller) READ THE LABEL! C472CER 1 4n7 ceramic capacitor READ THE LABEL! Semiconductors 1 LM336 Voltage Regulator 2.5V TO92 DON'T MIX THESE UP! READ THE LABEL! LM3362-2.5 1 LM336 Voltage Regulator 2.5V TO92 DON'T MIX THESE UP! REA337TO92 1 LM336 Voltage Regulator 2.5V TO92 DON'T MIX THESE UP! REA337TO92 1 LM336 Voltage Regulator 2.5V TO92 DON'T MIX THESE UP! REA237TO92 1 NPN Transisitor TO92 READ THE LABEL! Electromechanical PTV09A-402SU-B103 10 Bourns 10K 20% 9MM 25mm shaft 40-knurl T5-22E01AT15 1 TS22 Baton Toggle Switch SC132E01AT15 1	R204	3	Resistor THT 204 200K		
Resistor Network Arrays	R392	2	Resistor THT 392 3K9		
RN104	R822	1	Resistor THT 822 8K2		
Resistor Array 470 9pin Capacitors	Resistor Network Array	/S			
Capacitors C104CER 7 100n ceramic capacitor C107ELEC 3 100u electrolytic capacitor C225MON 2 2u2 monolithic capacitor (bigger) DON'T MIX THESE UP! C333MON 2 33n monolithic capacitor (smaller) READ THE LABEL! C472CER 1 4n7 ceramic capacitor Semiconductors 1N4004 1 Diode 1N4914 6 Small Signal Diode LM336Z-2.5 1 LM336 Voltage Regulator 2.5V TO92 DON'T MIX THESE UP! BC337TO92 1 NPN Transisitor TO92 READ THE LABEL! Electromechanical PTV09A-4025U-B103 10 Bourns 10K 20% 9MM 25mm shaft 40-knurl T5-22E01AT15 1 T522 Baton Toggle Switch SK12D07 1 Mini Toggle Switch DIPSKT14 3 14-pin DIP socket DIPSKT24 1 24-pin DIP socket DIPSKT32 1 32-pin DIP socket DIPSKT32 1 3.5mm jack - Stereo switched PWRDCSK72.1 1 Power socket, DC, 2.1mm	RN104	1	Resistor Array 100k 9pin		
C104CER	RN471	1	Resistor Array 470 9pin		
C107ELEC 3	Capacitors		,		
C225MON 2 2u2 monolithic capacitor (bigger) DON'T MIX THESE UP! C33MON 2 33n monolithic capacitor (smaller) READ THE LABEL! C472CER 1 4n7 ceramic capacitor Semiconductors 1 Diode 1N904 1 Diode 1N914 6 Small Signal Diode LM336-2.5 1 LM336 Voltage Regulator 2.5V TO92 DON'T MIX THESE UP! BC337TO92 1 NPN Transisitor TO92 READ THE LABEL! Electromechanical PTV09A-4025U-B103 10 Bourns 10K 20% 9MM 25mm shaft 40-knurl TS-22E01AT15 1 TS22 Baton Toggle Switch SK12D07 1 Mini Toggle Switch DIPSKT14 3 14-pin DIP socket DIPSKT24 1 16-pin DIP socket DIPSKT32 1 32-pin DIP socket for Arduino Nano 3.0 DICSKT8X1 2 8x1 header socket PJ358 4 3.5mm jack - Stereo switched PWRDCSKT2.1 1 Power socket, DC, 2.1mm Hardware Screw, Hex head, M3, 6mm <td>C104CER</td> <td>7</td> <td>100n ceramic capacitor</td> <td></td>	C104CER	7	100n ceramic capacitor		
C333MON 2 33n monolithic capacitor (smaller) READ THE LABEL! C472CER 1 4n7 ceramic capacitor Semiconductors 1 Diode 1N4004 1 Diode 1N914 6 Small Signal Diode LM336Voltage Regulator 2.5V TO92 DON'T MIX THESE UP! BC337TO92 1 NPN Transisitor TO92 READ THE LABEL! Electromechanical PTV09A-4025U-B103 10 Bourns 10K 20% 9MM 25mm shaft 40-knurl TS-22E01AT15 1 TS22 Baton Toggle Switch SK12D07 1 Mini Toggle Switch DIPSKT14 3 14-pin DIP socket DIPSKT14 3 14-pin DIP socket DIPSKT24 1 24-pin DIP socket DIPSKT32 1 32-pin DIP socket for Arduino Nano 3.0 DICSKT8X1 2 8x 1 header socket PJ358 4 3.5mm jack - Stereo switched PWRDCSKT2.1 1 Power socket, DC, 2.1mm Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm S	C107ELEC	3	100u electrolytic capacitor		
1	C225MON	2	2u2 monolithic capacitor (bigger)	DON'T MIX THESE UP!	
Semiconductors	C333MON	2	33n monolithic capacitor (smaller)	READ THE LABEL!	
1N4004 1 Diode 1N914 6 Small Signal Diode LM336Z-2.5 1 LM336 Voltage Regulator 2.5V TO92 DON'T MIX THESE UP! BC337TO92 1 NPN Transisitor TO92 READ THE LABEL! Electromechanical PTV09A-4025U-B103 10 Bourns 10K 20% 9MM 25mm shaft 40-knurl TS-22E01AT15 1 TS22 Baton Toggle Switch SK12D07 1 Mini Toggle Switch DIPSKT14 3 14-pin DIP socket DIPSKT16 1 16-pin DIP socket DIPSKT24 1 24-pin DIP socket for Arduino Nano 3.0 IDCSKT8X1 2 8x1 header socket PJ358 4 3.5mm jack - Stereo switched PWRDCSKT2.1 1 Power socket, DC, 2.1mm Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 S	C472CER	1	4n7 ceramic capacitor		
1N914 6 Small Signal Diode LM336Z-2.5 1 LM336 Voltage Regulator 2.5V TO92 DON'T MIX THESE UP! BC337TO92 1 NPN Transisitor TO92 READ THE LABEL! Electromechanical <td a="" constraint="" constraint<="" of="" rows="" td="" the=""><td>Semiconductors</td><td></td><td></td><td></td></td>	<td>Semiconductors</td> <td></td> <td></td> <td></td>	Semiconductors			
LM336Z-2.5	1N4004	1	Diode		
LM336Z-2.5	1N914	6	Small Signal Diode		
BC337TO92	LM336Z-2.5	1		DON'T MIX THESE UP!	
PTV09A-4025U-B103 10 Bourns 10K 20% 9MM 25mm shaft 40-knurl TS-22E01AT15 1 TS22 Baton Toggle Switch SK12D07 1 Mini Toggle Switch DIPSKT14 3 14-pin DIP socket DIPSKT16 1 16-pin DIP socket DIPSKT24 1 24-pin DIP socket DIPSKT32 1 32-pin DIP socket for Arduino Nano 3.0 IDCSKT8X1 2 8x1 header socket PJ358 4 3.5mm jack - Stereo switched PWRDCSKT2.1 1 Power socket, DC, 2.1mm Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer li	BC337TO92	1		READ THE LABEL!	
TS-22E01AT15 1 TS22 Baton Toggle Switch SK12D07 1 Mini Toggle Switch DIPSKT14 3 14-pin DIP socket DIPSKT16 1 16-pin DIP socket DIPSKT24 1 24-pin DIP socket DIPSKT32 1 32-pin DIP socket for Arduino Nano 3.0 IDCSKT8X1 2 8x1 header socket PJ358 4 3.5mm jack - Stereo switched PWRDCSKT2.1 1 Power socket, DC, 2.1mm Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 Op Amp <td>Electromechanical</td> <td></td> <td></td> <td></td>	Electromechanical				
SK12D07 1 Mini Toggle Switch DIPSKT14 3 14-pin DIP socket DIPSKT16 1 16-pin DIP socket DIPSKT24 1 24-pin DIP socket for Arduino Nano 3.0 DIPSKT32 1 32-pin DIP socket for Arduino Nano 3.0 DIPSKT34 2 8x1 header socket PJ358 4 3.5mm jack - Stereo switched PWRDCSKT2.1 Power socket, DC, 2.1mm Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 Op Amp	PTV09A-4025U-B103	10	Bourns 10K 20% 9MM 25mm shaft 40-knurl		
DIPSKT14 3 14-pin DIP socket DIPSKT16 1 16-pin DIP socket DIPSKT24 1 24-pin DIP socket DIPSKT32 1 32-pin DIP socket for Arduino Nano 3.0 IDCSKT8X1 2 8x1 header socket PJ358 4 3.5mm jack - Stereo switched PWRDCSKT2.1 Power socket, DC, 2.1mm Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 Op Amp	TS-22E01AT15	1	TS22 Baton Toggle Switch		
DIPSKT16 1 16-pin DIP socket DIPSKT24 1 24-pin DIP socket DIPSKT32 1 32-pin DIP socket for Arduino Nano 3.0 IDCSKT8X1 2 8x1 header socket PJ358 4 3.5mm jack - Stereo switched PWRDCSKT2.1 1 Power socket, DC, 2.1mm Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 Op Amp	SK12D07	1	Mini Toggle Switch		
DIPSKT24 1 24-pin DIP socket DIPSKT32 1 32-pin DIP socket for Arduino Nano 3.0 IDCSKT8X1 2 8x1 header socket PJ358 4 3.5mm jack - Stereo switched PWRDCSKT2.1 1 Power socket, DC, 2.1mm Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 Op Amp	DIPSKT14	3	14-pin DIP socket		
DIPSKT32 1 32-pin DIP socket for Arduino Nano 3.0 IDCSKT8X1 2 8x1 header socket PJ358 4 3.5mm jack - Stereo switched PWRDCSKT2.1 1 Power socket, DC, 2.1mm Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP4251 Digital Potentiometer linear 100K MCP6004 0 Amp	DIPSKT16	1	16-pin DIP socket		
DCSKT8X1 2	DIPSKT24	1	24-pin DIP socket		
PJ358 4 3.5mm jack - Stereo switched PWRDCSKT2.1 1 Power socket, DC, 2.1mm Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP4251 Digital Potentiometer linear 100K MCP6004 1 MCP6004 Op Amp	DIPSKT32	1	32-pin DIP socket for Arduino Nano 3.0		
PWRDCSKT2.1 1 Power socket, DC, 2.1mm Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 Op Amp	IDCSKT8X1	2	8x1 header socket		
Hardware SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 1 MCP6004 Op Amp	PJ358	4	3.5mm jack - Stereo switched		
SCREWHEXM306 4 Screw, Hex head, M3, 6mm SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 0 MCP6004 1 MCP6004 Op Amp	PWRDCSKT2.1	1	Power socket, DC, 2.1mm		
SCREWHEXM310 4 Screw, Hex head, M3, 10mm SPACEHEXM312BLK 4 Spacer, Hex, M3, 12mm, Black WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 0 MCP6004 1 MCP6004 Op Amp	Hardware		,		
SPACEHEXM312BLK WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 Op Amp	SCREWHEXM306	4	Screw, Hex head, M3, 6mm		
WASHM325 4 M3 aluminium washer M3*6*2.5 FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 Op Amp	SCREWHEXM310	4	Screw, Hex head, M3, 10mm		
FOOT10X4 4 Silicone 10mm x 4mm rubber foot pad Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 Op Amp	SPACEHEXM312BLK	4	Spacer, Hex, M3, 12mm, Black		
Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 Op Amp	WASHM325	4	M3 aluminium washer M3*6*2.5		
Integrated Circuits CD74HC165 1 74HC165 Parallel-in-Serial-Out Multiplexer MAX7221 1 MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP6004 Op Amp	FOOT10X4	4	Silicone 10mm x 4mm rubber foot pad		
MAX7221 slew-limited LED driver MCP4251-B103-P 1 MCP4251 Digital Potentiometer linear 10K MCP4251-B104-P 1 MCP4251 Digital Potentiometer linear 100K MCP6004 1 MCP6004 Op Amp	Integrated Circuits				
MAX72211MAX7221 slew-limited LED driverMCP4251-B103-P1MCP4251 Digital Potentiometer linear 10KMCP4251-B104-P1MCP4251 Digital Potentiometer linear 100KMCP60041MCP6004 Op Amp		1	74HC165 Parallel-in-Serial-Out Multipl	exer	
MCP4251-B104-P 1 MCP4251 Digital Potentiometer linear 100K MCP6004 1 MCP6004 Op Amp	MAX7221	1	·		
MCP4251-B104-P 1 MCP4251 Digital Potentiometer linear 100K MCP6004 1 MCP6004 Op Amp	MCP4251-B103-P	1	MCP4251 Digital Potentiometer linear	10K	
MCP6004 1 MCP6004 Op Amp	MCP4251-B104-P	1			
	MCP6004	1	_		
	CD74HC165	1	74HC165 Parallel-in-Serial-Out Multipl	exer	