



# Sierra Circuits, Inc.

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 Phone: 408-735-7137 Fax: 408-735-1408  
 Send RFQs to: files@protoexpress.com  
 www.ProtoExpress.com

# Quotation

<b>Quote Number:</b> Q608030-3
<b>Quote Date:</b> Jan 28th, 2016
<b>Quote Valid Till:</b> Feb 28th, 2016

<b>Customer</b> <b>UCLA</b> Payment Terms: Net Credit Approved	<b>Address:</b> 650 Charles Young, S. B2-414 Marion Davies Los Angeles California 90095 United States	<b>Buyer: Daniel Aharoni</b> <b>Phone:</b> 8186402127 <b>Email:</b> dbaharoni@gmail.com <b>Fax:</b>	<b>Account Manager : Justin Blakely</b> <b>Phone:</b> 408 735-7137 x 9910 <b>Email:</b> justinb@protoexpress.com <b>Fax:</b> 408-735-1408
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<b>PART NUMBER:</b> Miniscope USB_Control	<b>REV:</b>	<b>ASSEMBLY PART NUMBER:</b> Miniscope
USB_Control---ASSY	<b>REV:</b>	

Quote Line Item	Quantity	Turn Time	Price	NRE	Testing	Other	Line Total
Q608030-3A PCB Fabrication	20 Board(s)	5 Days	\$63.75 Piece Price	\$0.00 (Tooling waived)	\$0.00 (Testing will be done, charges waived)	\$0.00	<b>\$1275.00</b>
<b>Notes:</b>							
Q608030-3B PCB Fabrication	50 Board(s)	5 Days	\$34.90 Piece Price	\$0.00 (Tooling waived)	\$0.00 (Testing will be done, charges waived)	\$0.00	<b>\$1745.00</b>
<b>Notes:</b>							
Q608030-3C Assembly Labor	1 Assemblies	5 Days	\$516.81 Piece Price	\$0.00 (Tooling waived)	\$0.00 (Testing will be done, charges waived)	\$0.00	<b>\$516.81</b>
<b>Notes:</b>							
Q608030-3D Components	1 Assemblies	--	\$278.75 Lot Price	--	--	--	<b>\$278.75</b>
<b>Notes:</b>							
Q608030-3E Assembly Labor	5 Assemblies	5 Days	\$174.89 Piece Price	\$0.00 (Tooling waived)	\$0.00 (Testing will be done, charges waived)	\$0.00	<b>\$874.45</b>
<b>Notes:</b>							
Q608030-3F Components	5 Assemblies	--	\$614.75 Lot Price	--	--	--	<b>\$614.75</b>
<b>Notes:</b>							
Q608030-3G Assembly Labor	10 Assemblies	5 Days	\$124.90 Piece Price	\$0.00 (Tooling waived)	\$0.00 (Testing will be done, charges waived)	\$0.00	<b>\$1249.00</b>
<b>Notes:</b>							
Q608030-3H Components	10 Assemblies	--	\$1010.20 Lot Price	--	--	--	<b>\$1010.20</b>
<b>Notes:</b>							
Q608030-3I Assembly Labor	20 Assemblies	5 Days	\$96.83 Piece Price	\$0.00 (Tooling waived)	\$0.00 (Testing will be done, charges waived)	\$0.00	<b>\$1936.60</b>
<b>Notes:</b>							
Q608030-3J Components	20 Assemblies	--	\$1793.00 Lot Price	--	--	--	<b>\$1793.00</b>

<b>Notes:</b>							
<b>Q608030-3K</b>	50	5 Days	\$84.00	\$0.00	\$0.00	\$0.00	<b>\$4200.00</b>
<b>Assembly Labor</b>	Assemblies		Piece Price	(Tooling waived)	(Testing will be done, charges waived)		
<b>Notes:</b>							
<b>Q608030-3L</b>	50	--	\$3722.50	--	--	--	<b>\$3722.50</b>
<b>Components</b>	Assemblies		Lot Price				
<b>Notes:</b>							
<b>Special Notes:</b>							
1. This quote is for turn-key assembly. We will procure all components except those that are supplied by the customer and except those that are indicated DNI.							
2. Lead-times and availability for components are subject to change on a daily basis.							
3. We will not populate all those items which are indicated as DNI as per customer BOM / instructions.							
4. This quote does not include wire bonding and performing any functional tests on finished Assemblies.							
5. There is ROHS compliant BGA on this board (U2). This requires ROHS assembly.							
6. Customer must review BOM ISSUES REPORT before time of order. Items must be resolved or approved by the customer before the P.O. can be issued or accepted. Re-quote may be necessary.							
<b>Send any assembly components kit to:</b>							
<b>Sierra Assembly Receiving</b>							
<b>306 Potrero Ave</b>							
<b>Sunnyvale, CA 94085, USA</b>							
<b>(Always include your Company name and Quote Number with your kit)</b>							
<b>KITTING GUIDELINES</b>							
A detailed kitting guide is available on our website at <a href="http://www.protoexpress.com/terms">www.protoexpress.com/terms</a> . You must refer to that once you are ready to place an order.							

<b>Layers</b>	: 4	<b>Indv Brd Dimensions</b>	: 3.1 in x 2.25 in	<b>Array</b>	: No
<b>PCB Fabrication Spec (IPC Spec)</b>	: IPC-600G Class 2	<b>Dicing</b>	: No	<b>Min Space (Outer layer)</b>	: 5.979 mils
<b>Material</b>	: FR4	<b>Milling</b>	: None	<b>Min Trace (Inner layer)</b>	: -ve Plane
<b>Finished Thickness</b>	: 0.062 inches	<b>UL Marking Required</b>	: No	<b>Min Space (Inner layer)</b>	: -ve Plane
<b>Thickness Tolerance</b>	: Plus or Minus 10%	<b>ROHS compliant</b>	: No	<b>Solder Mask Type</b>	: LPI
<b>Surface Finish</b>	: ENIG	<b>Edge Plating</b>	: No	<b>Solder Mask Sides</b>	: Top and Bottom
<b>Surface Finish 2</b>	: None	<b>Etchback</b>	: No	<b>Solder Mask Color</b>	: Green
<b>Gold Finish Thickness SF1</b>	: 2 Micro Inches	<b>Electrical Test</b>	: Yes	<b>Solder Mask Finish</b>	: Standard (Semi-Gloss)
<b>Gold Fingers</b>	: No	<b>Controlled Impedance</b>	: 10% tolerance	<b>Solder Mask Via Opens</b>	: Covered on both sides
<b>Starting Copper Outer</b>	: Sierra choice	<b>Target impedance specified</b>	: Yes	<b>Carbon Ink</b>	: No
<b>Outer Layer Finish Copper</b>	: 1 Oz	<b>Multiple impedance on same layer</b>	: No	<b>Silk Screen Sides</b>	: Both
<b>Inner Copper</b>	: 1 oz Inners	<b>Target line width specified</b>	: Yes	<b>Silk Screen Color</b>	: White
<b>Gerbers provided?</b>	: Yes	<b>Number of target layers</b>	: 1 Layers	<b>Logo Allowed</b>	: In copper or silk screen
<b>Layer order provided?</b>	: Yes	<b>Number of Single-ended Impedances</b>	: 0	<b>Via in Pad</b>	: No
<b>Board outline provided?</b>	: Yes	<b>Number of Differential Impedances</b>	: 1	<b>Filled Vias</b>	: None
<b>Drill file provided?</b>	: Yes	<b>Controlled Dielectric</b>	: Yes	<b>SM Plugged Vias</b>	: No
<b>Fab drawing provided?</b>	: No	<b># of Holes Per Board</b>	: 340	<b>Minimum Drill to Copper distance</b>	: 0.0081 inches and above
<b>IPC Netlist Provided?</b>	: No	<b>Minimum Hole Size</b>	: 7 Mils	<b>Socket/BGA Pitch</b>	: 0.8mm
<b>Additional Customer Specification</b>	: No	<b>Aspect ratio</b>	: 2.7:1	<b>Blind vias</b>	: No
<b>Assembly BOM Available ?</b>	: Yes	<b>Minimum Annular Ring Width (Component Holes)</b>	: 8 mil or more	<b>Buried vias</b>	: No
<b>Flex Board?</b>	: No	<b>Internal Slots</b>	: None	<b>Controlled depth drilling</b>	: No
<b>ITAR?</b>	: No	<b>Internal Cutouts</b>	: None	<b>Cross Section certificate</b>	: No
<b>Arrays need to be created by Sierra ?</b>	: No	<b>Counter Sink</b>	: No	<b>Micro Section Coupon</b>	: No
<b>Individual Route</b>	: Yes	<b>Counter Bore</b>	: No	<b>Medical Application</b>	: No
<b>Route and Retain</b>	: No	<b>Edge Plated Holes</b>	: No	<b>Assembly Specification (Class)</b>	: IPC-A-610 Class2
<b>Scoring</b>	: No	<b>Min Trace (Outer layer)</b>	: 5 mils		

# Not sure due to missing information

## Not sure due to discrepancy

#### Generic Terms & Conditions:

1. All orders are FOB Sunnyvale, California, USA unless otherwise specified within the Quote. For deliveries outside USA, all Duties and Customs are the responsibility of the customer, unless otherwise agreed upon in writing.
2. Prices are quoted in US Dollars; Taxes and Shipping Charges are extra as applicable.
3. This quote is only valid for 30 days unless otherwise agreed upon in writing by our representatives.
4. Payment terms are mentioned at the top of this Quote.
5. Prices shown on this document are based on information provided by customer's Gerber files and associated instructional documents at date of quotation/order. To facilitate quick-turns, customers sometime request us to release orders with a pending PO. Any changes requested to PCB manufacture/assembly processes after placing order, or any new details that emerge in a pending PO, may result in additional charges.
6. The Turn Time shown is calculated using business days. Weekends and business holidays are excluded in any turn time calculations. Additional turn days may be added to orders that are placed "On Hold," waiting for customer response for resolution of missing information or discrepancies.

#### PCB Fabrication Terms & Conditions:

1. Sale subject to limited warranty. Warranty extends only to bare PCBs and does not apply after components are added by you or others. Our liability shall not exceed price paid by you for the ordered PCBs. No change or addition to these terms, or any additional or different terms on your purchase order, shall be binding on us unless executed in writing by one of our officers.
2. If Sierra Circuits is assembling the boards then we will also warranty the Assembly Labor workmanship.
3. If IPC Netlist is not provided in 356 format, Sierra Circuits will create a net-list from the incoming customer Gerber files to generate an electrical test program. In such cases, Sierra cannot guarantee, nor can it be liable for the electrical performance of the boards, since the test program itself is derived from the files submitted.
4. If you are ordering our "Web PCBs" product, the selection you made online, and the product you chose online, takes priority over your fab drawing or readme notes. Example: Say you chose material FR4 online and your fab drawing calls for Rogers material, we will simply process your order using FR4 material. The price quoted online is based on the specifications and product you chose online.
5. Manufacturing Optimizations: As with most other PCB manufacturers, we may make simple optimizations to your design to ensure boards are manufactured correctly. Such changes do not affect the electrical functionality of your design. These may include:
  - A) Teardrops may be added to pad/trace interfaces to ensure better connectivity.
  - B) Slivers less than .005" may be filled in to prevent resist slivers on the panels.
  - C) Soldermask dams that are less than .004" wide between SMD pads which have a .003" minimum clearance may be gang relieved.
  - D) Silkscreen may be clipped to ensure it does not get on top of pads/copper features.
  - E) Non-functional pads may be removed from inner layers.
6. No change or addition to these terms above, or any additional or different terms on your purchase order, shall be binding on us unless executed in writing by one of our officers.

#### PCB Assembly and Components Terms & Conditions

##### QUOTE

1. Quote is based on RFQ Data provided at the time of this quote and is subject to change if data has changed at the time of order. We do not perform a full DFM analysis nor do we identify all the issues at the time of quoting. For turnkey quotes, the availability of components varies every day; and we do not guarantee that all the components will be readily available at the time of order without any lead-time issues.
2. First Article (FA) requests at time of quote:
  - a) For Turn-Key or Consigned assembly quotes that require a First Article (FA), we will include a separate line item for the FA in the quote
  - b) For Turn-key orders, Sierra will only purchase components sufficient for the FA, unless customer agrees to pre-pay for components required for both FA and Production orders to save component costs.
3. FA requests after order has been placed:
  - a) For consigned and turn-key orders, Sierra will re-quote and show separate quotes for FA and Production.
  - b) Sierra will invoice customer for all FA as per quote, and invoice will include all bare boards made (including boards that are not used for the FA)
  - c) Sierra will invoice customer for all components purchased prior to FA request at the time bare boards are shipped.
4. For turnkey or consigned assembly orders that have a FA: At the time PCB's are shipped to assembly, customer will be invoiced in full for all bare boards (including boards that are remaining for the production order that is pending FA approval).
5. In all instances, should FA testing by the customer take longer than 20 days, Sierra will ship any components kept for remaining assemblies back to the customer and invoice accordingly. Customer may return the components at a later date to continue with the remaining assemblies under a new work order number.
6. Requests to split the original order into multiple builds will be priced as per quoting guidelines.
7. If, for any reason, an assembly order (be it consigned or turnkey) is put on hold after PCBs are made, and the hold is more than 20 days, Sierra Circuits reserves the right to invoice customer for all the PCBs fabricated and any components purchased for that order.
8. In case we ship your Assembly order in partial shipments, please note that all components and miscellaneous charges (for the whole lot) may be invoiced with the first partial shipment.

##### PAYMENT

1. Payments for all invoices will be as per terms mentioned in Quotes and Invoices. Customer shall not withhold payment against invoices already raised for any reason whatsoever, like unsatisfactory workmanship, pending rework or non-functioning boards or for any other reason. (For mitigation of these reasons, see Warranty and Limited Liability Clauses below).
2. If the payment for the Order is being done using a credit card then, by providing us a credit card number, you are also authorizing us to charge the card as per our policies.
3. Cancelled Orders: In general, you are liable for the cost of parts that have been purchased or expenses that have been incurred prior to cancelling an order.

##### ORDER

1. Assembly Order Acceptance is not guaranteed until your account is found in good standing.
2. Order Cancellation Charges.
  - a) Assembly Labor cancellation charges after order has been released: Cancellation charge will be determined by the percentage of labor performed before cancellation date, with a minimum of \$450.
  - b) Turn-Key Component cancellation charges after order has been released: Customer will pay 100% of components costs for components purchased by Sierra prior to cancellation date. This will include any shipping, kit-auditing and handling costs as applicable. All such components will be sent to Customer.

3. Component shortages:

a) Consigned parts shortage: If regardless of shortage, customer has asked us to proceed to the assembly phase and if customer does not send the parts within 2 days of starting the order, then we will complete all assemblies with whatever components were consigned to us, and all assemblies (including shortage assemblies) will be shipped and invoiced as per order, and the order would be deemed to be completed. Subsequently, if the customer ships the shortage assemblies with the shortage parts to us for rework, such rework assembly would be performed by Sierra either at no charge or at a suitable rework charge to be determined by Sierra.

b) Turnkey parts shortage: where it is known that some parts cannot be quickly procured due to unavailability or long lead times or other reasons, and customer specifically asks us to start the job nevertheless, such assemblies (including shortage assemblies) will be shipped and invoiced as per order, and the order would be deemed to be completed. When Sierra receives the ordered long lead-time components, customer may EITHER elect to ship those parts shipped to them (in which case no additional rework is involved); OR customer may send the shortage assemblies BACK to Sierra for completion rework (Rework & Re-Shipping charges will apply).

4. Completeness of Assembly data: It is customer's responsibility to provide complete and correct assembly data, BOM in excel spreadsheet, Assembly Gerbers, assembly drawings, Special instructions if any, and XY Pick and Place Data for SMT parts. If customer is unable to provide correct XY Data, additional charges will apply.

5. Turn Time: Assembly Turn Time will start when the kit is complete AND all assembly data related issues are resolved.

6. On-Time: Sierra may make partial shipments for your order. Your order will be considered shipped on-time if at least 90% of assemblies are shipped by the due date

7. Order Completeness: Orders may be considered complete, if the quantity shipped is within +/- 5% of the original quantity. Sierra will invoice customer for the boards shipped.

WARRANTY

1. Assembly workmanship: All assembly workmanship will be as per IPC-A-610 unless otherwise directed in writing. All soldering will be using standard Tin/Lead solder in case of standard solder process assembly OR ROHS compliant solder in case of ROHS assembly and water soluble OA flux unless otherwise directed in writing.

2. ASSEMBLY WORKMANSHIP WARRANTY: We warrant each assembly for workmanship up to 30 days after shipment. In case of any unsatisfactory assembly workmanship, we will repair the assembly free of charge OR credit the quoted cost of the assembly labor at our sole discretion. Any modifications done to the assemblies by customer will nullify our warranties.

3. Sierra Circuits is not responsible for any damage or lack of functionality caused by defective design, components or PCBs provided by you or as a result of deficiencies in the electronic materials provided by you.

4. LIMITED LIABILITY-I: We are not liable for rework, repair or replacement for any faulty components supplied to us by customer or purchased by us from vendors in accordance with customer supplied BOMs.

5. LIMITED LIABILITY-II: We are neither responsible nor liable for assembled boards found non-functioning during testing by customer; we are only responsible for assembly workmanship performed as per customer supplied data.

6. LIMITED LIABILITY-III: In no case shall our liability exceed the price charged to you for the job performed by us. We are not liable for any assemblies beyond 30 days after shipment.

7. NO OTHER WARRANTY: We give no other warranty; either expressed or implied, and we specifically disclaim all other warranties, including warranties for merchantability and fitness.

8. No change or addition to these terms above, or any additional or different terms on your purchase order, shall be binding on us unless executed in writing by one of our officers.

Please contact me if you have any questions about this quote.

Best Regards,  
**Justin Blakely**  
Account Manager  
Sierra Circuits, Inc.

Email: [justinb@protoexpress.com](mailto:justinb@protoexpress.com)  
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**End of Quote Q608030-3 from Sierra Circuits, Inc.**

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