



Sierra Circuits, Inc.

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 Send RFQs to: files@protoexpress.com
 www.ProtoExpress.com

Quotation

Quote Number: Q1474862-3

Quote Date: Dec 17th, 2019

Quote Valid Till: Jan 17th, 2020

Customer Sierra Lobo INC. Payment Terms: Credit Card Payment (Terms as established. If no terms established, then credit card or COD.)	Address: 11401 Hoover Rd Milan Ohio 44846 United States	Buyer: Cody Kornowski Phone: 567-401-1010 Email: cody.k.kornowski@sierralobo.com Fax:	Account Manager : Kimberly Lee Lerma Phone: 1-408-735-7137 x 9834 Email: kimberlyl@protoexpress.com Fax: 1-408-735-1408
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PART NUMBER: CubeSet Backplane **REV:** Init **ASSEMBLY PART NUMBER:** CubeSet Backplane--Assy **REV:** Init

Quote Line Item	Quantity	Turn Time	Price	NRE	Testing	Other / Misc.	Line Total
Q1474862-3A PCB Fabrication NOTES:	3 Board(s)	5 Days	\$627.00 Piece Price	\$0.00 (Tooling waived)	\$0.00 (Testing will be done, charges waived)	\$0.00	\$1881.00
Q1474862-3B PCB Fabrication NOTES:	3 Board(s)	10 Days	\$589.50 Piece Price	\$0.00 (Tooling waived)	\$0.00 (Testing will be done, charges waived)	\$0.00	\$1768.50
Q1474862-3C Assembly Labor NOTES:	2 Assemblies	5 Days	\$288.52 Piece Price	\$0.00 (Tooling waived)	\$0.00	\$0.00	\$577.04
Q1474862-3D Assembly Labor NOTES:	2 Assemblies	10 Days	\$281.60 Piece Price	\$0.00 (Tooling waived)	\$0.00	\$0.00	\$563.20
Q1474862-3E Components NOTES:	2 Assemblies	--	\$355.30 Lot Price	--	--	--	\$355.30
Q1474862-3F PCB Fabrication NOTES:	6 Board(s)	5 Days	\$313.50 Piece Price	\$0.00 (Tooling waived)	\$0.00 (Testing will be done, charges waived)	\$0.00	\$1881.00
Q1474862-3G PCB Fabrication NOTES:	6 Board(s)	10 Days	\$294.75 Piece Price	\$0.00 (Tooling waived)	\$0.00 (Testing will be done, charges waived)	\$0.00	\$1768.50

SPECIAL NOTES:

1. This Turnkey Assembly Quote is per IPC-A-610 (Class 2) .
 2. 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.
 3. Lead-times and availability for components are subject to change on a daily basis.
 4. We will not populate all those items which are indicated as DNI as per customer BOM / instructions.
 5. This quote does not include wire bonding and performing any functional tests on finished Assemblies.
 6. There is a current market shortage on passive components. In case of non-availability of specific Passive Components in your BOM, Sierra Circuits will use Direct Replacement (FORM, FIT & FUNCTION) Alternate which matches or is better on tolerance & other specifications. This is a common practice in the Assembly industry.
- If you do not want such substitutions of passive components to be made without approval, you must explicitly say so in your BOM and PO. And you must inform your sales person at the time of placing your custom order.

Send any assembly components kit to:

Sierra Assembly Receiving
306 Potrero Ave
Sunnyvale, CA 94085, USA
(Always include your Company name and Quote Number with your kit)

KITTING GUIDELINES:

If you are sending us components you must follow the Kitting Guidelines at

www.protoexpress.com/terms

Layers	: 6	Indv Brd Dimensions	: 3.11 in x 5.43 in	Array	: No
PCB Fabrication Spec (IPC Spec)	: IPC-6012D A1 Class 2	Assembly BOM Available	: Yes	Min Trace (Inner layer)	: 10 mils
Material	: Isola FR408HR	Arrays need to be created by Sierra	: No	Min Space (Inner layer)	: 7 mils
Finished Thickness	: 0.062 inches	Individual Route	: Yes	Solder Mask Sides	: Top and Bottom
Thickness Tolerance	: Plus or Minus 10%	Route and Retain	: No	Solder Mask Color	: Blue
Surface Finish	: ENIG	Scoring	: No	Solder Mask Type	: LPI
Gold Finish Thickness SF1	: 2 Micro Inches	UL Marking Required	: Yes	Solder Mask Finish	: Standard (Semi-Gloss)
Gold Fingers	: No	ROHS compliant	: Yes	Solder Mask Via Opens	: Covered on both sides
Starting Copper Outer	: Sierra choice	Electrical Test	: Yes	SM Plugged Vias	: No
Outer Layer Finish Copper	: 2 Oz	Etchback	: Yes	Silk Screen Sides	: Both
Inner Copper	: 2 oz Inners	Controlled Impedance	: None	Silk Screen Color	: White
Flex Board?	: No	Controlled Dielectric	: Yes	Logo Allowed	: In copper or silk screen
ITAR?	: No	# of Holes Per Board	: 1158	Thru-Hole Via in Pad	: No #
Gerbers provided?	: Yes ##	Minimum Hole Size	: 8 Mils	Thru-Hole Filled Via	: None
Layer order provided?	: Yes	Minimum Annular Ring Width (Component Holes)	: 8 mil or more	Cross Section certificate	: No
Board outline provided?	: Yes	Internal Slots	: None	Micro Section Coupon	: No
Drill file provided?	: Yes	Internal Cutouts	: None	Assembly Specification (Class)	: IPC-A-610 Class2
Fab drawing provided?	: Yes	Min Trace (Outer layer)	: 10 mils		
IPC Netlist Provided?	: Yes	Min Space (Outer layer)	: 4 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.
7. Your responsibility to help ensure delivery dates are not changed

When you place your order our engineering team will start working on it (mostly DFA/DFM checks), and identify any discrepancies or missing information and will contact you by email/phone, likely using your 24 hour contact number. For many orders, such issues will also be posted on your Customer Portal for you to respond online.

In order to ensure on time completion of your order, you must respond to such communication promptly, so that delivery date is not affected.

- a) If your order is for a very fast turn (1 or 2 day turn time) and your responses are delayed by more than 1 hour, it might lead to a change in delivery date.
- b) If your order is for 3 days or more and your responses are delayed by more than 3 hours, it might lead to a change in delivery date.

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 send us your design files in multiple formats (say, Gerbers and ODB++) it is your responsibility to ensure that the design in both formats is the same. We reserve the right to use any of the formats sent to us and will not cross-check between formats for consistency.
5. 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.
6. 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.

7. 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.

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.

ORDER

1. Assembly Order Acceptance is not guaranteed until your account is found in good standing.
2. Order Cancellation will be subject to costs already incurred plus a minimum cancellation charge of \$400.
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. Later on, if the customer ships the shortage assemblies with the shortage parts to us for rework, such rework assembly would be done by us either at no charge or at a suitable rework charge to be determined by us.
 - 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 we finally get the ordered long lead-time components, customer may EITHER opt to get those parts shipped to them (in which case no additional rework is involved); OR customer may send the shortage assemblies BACK to us 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: We 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. We will invoice you for the boards shipped.

DFM & DFA

Once your order is received, it may go through a quick Design for Manufacturing (DFM) and Design for Assembly (DFA) analysis, to prevent any holds during manufacturing and assembly. If we find any issues, these must be resolved promptly. We may use our Customer Portal to interact with you on such issues and/or we will contact you by phone/email as needed.

We cannot start manufacturing/assembly if such issues are unresolved. An unreasonable delay in resolving issues may push out your delivery date accordingly.

(Note: We only do a DFA on orders that include our Assembly services. An example of a DFA issue: The landing pads on your board don't match the footprint for component C12.)

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. This warranty is also nullified on products which have been subject to misuse (including static discharge), neglect, accident or which have been altered by you and are not capable of being tested.
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.

NOTE: A current market shortage of the SMT passive components (Capacitors and Resistors) is leading to rapidly changing availability conditions. Therefore, it is not possible to predict their availability at the time of customer P.O. or at the time of our purchase. As a result, if a particular item is not in stock, Sierra will request either an Alternate Part # from the customer, or an approval of Sierra suggested Alternate Part #. We expect a prompt response to ensure your project is not delayed.

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

Best Regards,
Kimberly Lee Lerma
Account Manager
Sierra Circuits, Inc.

Email: kimberlyl@protoexpress.com
Phone: 1-408-735-7137 x 9834
www.ProtoExpress.com

End of Quote Q1474862-3 from Sierra Circuits, Inc.

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