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Terms and Conditions for Quartzdyne Electronics (“Quartzdyne”)

Scope of Work: Quartzdyne

Quartzdyne will assist the Customer in identifying components available for purchase. Quartzdyne will not design circuits (including recommending design changes), nor will we verify component suitability. These limitations are necessary to protect your intellectual property and that of customers with potentially similar projects.

Quartzdyne will layout the Customer schematic on a ceramic substrate, manufacture a first-run hybrid, and ship it to the Customer for design qualification. Quartzdyne is responsible for the hybrid workmanship and the manufacturing process. If the hybrid fails to meet specification due to Quartzdyne’s errors in layout/routing errors, or defects in workmanship, Quartzdyne will remedy the problem and repair/replace the defective hybrids at Quartzdyne’s expense.

Hybrids are warranted for defects in workmanship, for one year from date of shipment. Warranty excludes abuse or temperatures above 200°C. (We have demonstrated that the hybrids we manufacture for our pressure transducers withstand shock levels of 15,000 g’s and one year at 250°C. We will use equivalent processes to assemble your hybrid, but differences in your components will dictate shock tolerance and time at temperature.)

Scope of Work: Customer

The Customer is responsible for design and component selection, including verification that the individual components and the circuit functions at the specified temperature. (We recommend that you verify the design and components at temperature in surface-mount prior to hybridizing. Coordinate with us on component availability.)

The Customer shall provide Quartzdyne with the necessary electrical test equipment including software and cables.

If the hybrid fails to meet specification due to the circuit design or its components, the customer is responsible to pay all costs incurred by Quartzdyne. If the Customer revises the design, Quartzdyne will adjust the NRE accordingly, and the Customer shall reimburse Quartzdyne for all purchased parts that will no longer be used. This material becomes the property of Customer. If the customer decides to cancel the project, the customer shall pay Quartzdyne for all direct and indirect costs incurred up to the time of cancellation.

Pricing

Costs are comprised of an NRE, die charges, and unit pricing. Some components are only available for purchase in a minimum order quantity (MOQ), which can range from hundreds to a million parts. Project-specific MOQ costs will be billed to the customer at the purchase price. The customer owns all MOQ parts. Parts consumption: allow 20% additional parts for Quartzdyne set-up and yield losses. We will credit customers for any excess beyond the 20%, at the original purchase price of the components. When the project is completed or terminated, all excess MOQ parts will be either, (1) returned to the customer, or (2) properly stored at Quartzdyne for a nominal fee. Quartzdyne also offers brokerage services where MOQ parts can be sold anonymously for a 15% commission. The following table provides an example quote breakdown:

Quote Example	Price Range (\$)	Notes
Price per Unit	10-15X the price of a surface-mount circuit	Varies by design and by quantity ordered
Non-recurring Engineering (NRE) • Pass-through NREs • Quartzdyne NRE	7,000 – 10,000 <u>15,000 – 25,000</u>	NREs are billed at cost. 50% is due at time of order; balance is due when first prototype is shipped.
Total NREs	21,000 – 35,000	
Project-specific Components	0 – 100,000	100% due at time of order

Standard Terms and Conditions

See our standard terms and conditions at <http://www.quartzdyne.com/products/terms.htm>