

#### **Statement of Work**

# **Fabrication and Assembly of IO Expansion Chassis for Advanced LIGO Controls**

The following documents are incorporated into and made a part this purchase order. Click on the following LIGO Document Control Center (DCC) links to access these documents or go on line to the LIGO Public DCC at <a href="https://dcc.ligo.org/">https://dcc.ligo.org/</a> to access the DCC#.

#### 1.0 Terms:

<u>DCC #</u>

Laser Interferometer Gravitational Wave Observatory (LIGO) Commercial Items or

<u>C080185-v1</u> Services Contract General Provisions California Institute of Technology "Institute",

LIGO Rev 11/12/08

F0810001-v4 Technical Direction Memorandum.

# 2.0 End Item Data Package:

At the time of delivery of the parts, the Supplier shall also provide the following data, as a minimum:

- Any as-built modifications (with approval of the LIGO Contracting Officer) as mark-ups to the drawings
- o Certificate or statement of compliance with all contract and drawing process restrictions.

#### 3.0 Included Documents:

The Statement of Work (SOW) sections below regarding processing or fabrication of the parts are meant to convey the scope and nature of the requested work. If there is a conflict between the SOW and the drawing, the drawing has precedence. The parts are to be produced using the CAD models that will be provided to the contractor upon award. If there are discrepancies between the drawings and the CAD model, the model takes precedence.

The drawing cited below is only partially dimensioned. In addition to the drawings, the contractor will be provided with CAD solid models of the parts (SolidWorks Professional 2010, SP4.0)

DCC # Description

<u>D1001715-v1</u> IO Expansion Chassis- Top Assembly Drawing

#### 4.0 Scope:

This RFQ is for the assembly of the aLIGO IO Expansion Chassis per LIGO drawing D1001715-v1. Internal circuit boards, specifically the Trenton BPX6806, the IO Interface backplane D0902029 and the Duotone to IO Interface Adapter (D0902184 and attached Timing Slave boards) will be supplied by Caltech to the successful bidder for assembly. All other components such as the chassis, power supply, cables, fans, switches, cable harnesses, wires, screws, nuts and cable ties shall be supplied by the assembler.

Initially a pre-production quantity of 20 units will be produced by the assembler and evaluated by Caltech. Once these 20 units are approved a production quantity of 90 units shall be delivered. This will bring the total number of units covered by this RFQ to 110.

# 5.0 Quantity Required:

D1001715-v1	IO Expansion Chassis- Top	total qty: 110, 20 pre-production prototypes plus 90
	Assembly	production units

# 6.0 Delivery Requirements:

The deliveries are FOB at these destinations, i.e. the contractor has responsibility for shipping title and control of goods until they are delivered and the transportation has been completed. The contractor selects the carrier and is responsible for the risk of transportation and for filing claims for loss or damage.

### **Shipping Location:**

These items will be shipped to:

LIGO Livingston Observatory (LLO) Attn: Carl Adams and Tom Gentry 19100 LIGO Lane Livingston, LA 70754

LIGO Hanford Observatory (LHO) Attn: Richard McCarthy and Jodi Fauver 127124 North Route 10 Richland, WA 99354

The number of units shipped to each of the sites listed above is detailed in the following table.

Chassis Type	Quantity Shipped to LLO	Quantity Shipped to LHO
Pre-Production Prototype	10	10
Production Units	74	26

#### **Shipping Containers:**

The contractor is responsible for providing shipping containers and transportation which protects these parts from damage from the transportation environment (weather, handling, accidents, etc.). Mating edges of parts should be especially protected from damage during shipping.

# **Delivery Schedule:**

Delivery of the pre-production prototype units shall be 8 weeks or less, ARO.

Delivery of the production units shall be completed within 10 weeks of Caltech giving final written approval on the pre-production prototypes. It is anticipated that the evaluation period for the pre-production units shall be 2 weeks or less from the date of receipt.