

Camera Link Video Recorder System Statement of Work

1 Introduction

NASA has a requirement for Camera Link Video Recorder Systems (herein referred to as Video Recorder Systems). These Video Recorder Systems will record and download the raw, uncompressed full-frame video imagery produced by arrays of digital video cameras. The Video Recorder Systems will be utilized in laboratory and field applications requiring different, compact system configurations having sufficient flexibility to integrate and operate seamlessly with a variety of video cameras incorporating the Camera Link Base format. In certain instances, the Video Recorder Systems will capture raw, uncompressed video streams from up to six (6) independent video cameras simultaneously. Technical specifications for the Video Recorder Systems are described in the following section.

2 Specifications

The Contractor shall provide a total of four (4) Video Recorder Systems described below. Additionally, spare components are required to supplement the four Video Recorder Systems. The requirements for the Video Recorder Systems and spare components are described in the following sections.

2.1 Stand-Alone Video Recorder System shall include the following:

2.1.1 Quantity Required: One (1) System

2.1.2 Record raw, uncompressed full-frame digital video from up to 4 cameras simultaneously via IO Industries DVR Express Core Stand-Alone digital video recorders without dropping video frames.

2.1.2.1 Dual Camera Link Base connections per DVR Express Core recorder

2.1.2.2 Minimum 120 GB 2.5" SATA-II solid state drive configuration to support 20 MB/sec data rates for 3 hour recording sessions and 128 MB/sec data rates for 30 minute recording sessions

2.1.2.3 120VAC/60Hz power adapters

2.1.3 Video download station featuring IO Industries DVR Express Core download module

2.1.3.1 Removable 4-bay drive shuttle with solid state drives complementing drives in DVR Express Core Stand-Alone digital video recorders

2.1.3.2 120VAC/60Hz power adapter

2.1.4 Video recording software

- 2.2 Semi Stand-Alone 3U Video Recorder System shall include the following
 - 2.2.1 Quantity Required: One (1) System
 - 2.2.2 Record raw, uncompressed full-frame digital video (without any video frame loss) from up to 6 cameras simultaneously via IO Industries laptop-based DVR Express Core digital video recorders
 - 2.2.2.1 Dual Camera Link Base connections per DVR Express Core recorder
 - 2.2.2.2 120 GB (minimum) 2.5" SATA-II solid state drive configuration to support
 - 20 MB/sec data rates for 3 hour recording sessions and 128 MB/sec data rates for 30 minute recording sessions
 - 2.2.2.3 Esata connection via pcie x8
 - 2.2.2.4 Dual 2-meter esata fan-out cables
 - 2.2.2.5 120VAC/60Hz power adapters
 - 2.2.3 Video download station featuring IO Industries DVR Express Core download module
 - 2.2.3.1 Removable 4-bay drive shuttle with solid state drives complementing drives in DVR Express Core digital video recorders
 - 2.2.3.2 120VAC/60Hz power adapter
 - 2.2.4 Video recording software with frame-by-frame IRIG time-tagging
 - 2.2.5 3U 19-inch rack-mount enclosure
 - 2.2.6 winxp 32-bit multi-core processor
 - 2.2.7 IRIG-B receiver/generator for PCI and pcie x1
 - 2.2.8 Power supply

- 2.3 Semi Stand-Alone 2U Video Recorder System shall include the following:
 - 2.3.1 Quantity Required: Two (2) Systems
 - 2.3.2 Record raw, uncompressed full-frame digital video (without any video frame loss) from up to 6 cameras simultaneously (per Recorder System) via IO Industries laptop-based DVR Express Core digital video recorders
 - 2.3.2.1 Dual Camera Link Base connections per DVR Express Core recorder
 - 2.3.2.2 120 GB (minimum) 2.5" SATA-II solid state drive configuration to support 20 MB/sec data rates for 3 hour recording sessions and 128 MB/sec data rates for 30 minute recording sessions
 - 2.3.2.3 esata connection via pcie x8
 - 2.3.2.4 Dual 2-meter esata fan-out cables
 - 2.3.2.5 120VAC/60Hz power adapters
 - 2.3.3 Video download station featuring IO Industries DVR Express Core download module
 - 2.3.3.1 Removable 4-bay drive shuttle with solid state drives complementing drives in DVR Express Core digital video recorders
 - 2.3.3.2 120VAC/60Hz power adapter
 - 2.3.4 Video recording software with frame-by-frame IRIG time-tagging
 - 2.3.5 2U 19-inch rack-mount enclosure
 - 2.3.6 Win7 32-bit multi-core processor
 - 2.3.7 IRIG-B receiver/generator for PCI and pcie x1
 - 2.3.8 Power supply

- 2.4 Video Recorder System Spare Components shall include the following:
- 2.4.1 120 GB 2.5" SATA-II solid state drives for DVR Express Core recorders and download modules – Quantity Required: Sixteen (16)
 - 2.4.2 Removable 4-bay drive shuttles for DVR Express Core download modules – Quantity Required: Three (3)
 - 2.4.3 esata connection via PCI for DVR Express Core download modules – Quantity Required: Two (2)
 - 2.4.4 esata connection via pcie for DVR Express Core download modules – Quantity Required: Three (3)
 - 2.4.5 esata connection via PCMCIA for DVR Express Core download modules –Quantity Required: One (1)
 - 2.4.6 2-meter esata fan-out cables for DVR Express Core recorders – Quantity Required: Four (4)

3 Documentation

The Contractor shall furnish all required documentation necessary to power, install, configure, operate, and maintain the Video Recorder Systems.

4 Warranty

All hardware and software shall be warranted in accordance with standard commercial practices, and shall cover all parts and labor. A minimum 365-day warranty period shall begin after date Video Recorder Systems delivery to NASA.

5 Delivery

All deliverables contained under this Statement of Work shall be delivered to NASA not later than four (4) weeks following contract award.