

NASA/LaRC has a requirement for (3) solid-state, harsh environment digital video recording systems and (15) high-resolution, miniature bullet cameras, in support of [the IRVE-3 BTP project](#) and that shall meet the following specifications:

ITEM 1 ST8394 BULLET CAMERA

The vendor shall supply high-resolution, miniature bullet cameras, **STACK model number ST8394 or equivalent**, and amplified microphone kits that are “plug and Play” to the supplied DVR/Combiner unit. The camera shall be weatherproof. The lens shall allow for 120 degree field of view. The camera minimum illumination shall be 0.1 Lux (Day) and 0.003 (Night, f:1.2). The unit shall meet or exceed the following requirements; the unit shall be powered by 12 Vdc and power consumption of less than 2 watts. The unit shall operate in a temperature range -10C to +50C (14F to 122F). The unit shall be no larger than 21mm(D) X 72.5mm(L) and weigh less than 250grams.

Quantity Requested

15 each

ITEM 2 ST9379 STACK DVR3-540 SYSTEM

The unit shall provide a means of outputting a composite video signal that allows the user to select the number of video channels to display on one monitor as well as allowing the user to where each video channel will be displayed on the video monitor. **The unit shall be a STACK DVR-54, part number ST9379, or equivalent.** The unit shall have NASA sounding rocket heritage as well as having a means of directly interfacing with a WFF-93 PCM Video compression system. The unit shall be capable of recording up to 128 channels of data including provision for GPS and internal 3-axis G-sensors. The data channels shall have a means of being sampled at a rate up to 500hz. The video recording format shall be MPEG-2. The unit shall provide a means of directly storing the video and data on compact flash memory cards. The unit shall be no larger than 152mm X 76mm X 22.5 in physical dimensions. The unit shall be less than 400 grams. The unit shall have an input power range of 20-34 Vdc and have a power consumption of less than 10watts.

Specific Detailed Requirements

General

The unit shall accept up to 4 video inputs with a format of NTSC at 30 frames per second or PAL 25 frames per second formatting. The input level of the video signal and out level of the composite video shall be 1 Vp-p. The compression format shall be MPEG-2. The unit shall support the following resolutions; PAL: 720x576; 720x400; 480x576; 352x576, 352x288, NTSC: 720x480; 720x400; 480x480; 352x480; 352x240. The unit shall have a user selectable bit rate of up to 20Mbps. The unit shall have a recording time of no less than 3 mins/Gbyte.

Audio Detailed Requirements

The unit shall have a capability of recording up to 2 audio channels with line level inputs +3db to 30Bd. The audio channels shall have active gain control and the compression format shall be MPEG 1 Layer II or better.

Recording Media

The unit shall provide a means of recording data and compressed video on compact flash drives with a FAT32 interface. The minimum size of total capacity shall be 128GB.

Environmental

The unit shall meet or exceed the following environmental parameters; the operation temperature range shall be -20°C to +80°C (-4 to 176°F) and a storage range temperature -40°C to +80°C (-4 to 176°F). The unit shall meet the IP67 Standard for sealing. The operating relative humidity level shall be 0-100% RH Condensing. The unit shall survive a vibration level of 20g 50-2000 Hz swept sinusoidal 12 hour x 3 axes and shock level of 50G, 15m.

Quantity Requested

3 each