VDSU-1407

Video Distribution System Unit

- Comprehensive video routing and switching

- The heart of the Skyquest Video Management System (VMS)

- Takes care of video signal strength even when being routed to multiple displays

- Converts VGA to video to enable images such as moving maps to be recorded or transmitted in composite/XC

- Enables multiple video sources to be viewed simultaneously on multiple user's displays

- Removes the need for complex aircraft wiring by using fewer cables

- Enables video routing to be changed in flight (for example, the user can select which signal to send to video recorders or downlinks on the fly)

- Provides touch screen commands from any display to any peripheral

- Quad image generation (option)

The VDSU-1407 is one in a series of comprehensive video conversion and distribution units designed to simplify the routing of multiple video and VGA signals on surveillance aircraft. Typically the unit is used in applications where multiple video inputs (for example video inputs from a multi-sensor gyrostabilized camera system) and additional signals from moving maps, mission computers, video recorders and up/down links need to be routed to multiple displays in the aircraft.

By routing the original source signals to the VDSU-1407, a single multi-core cable can then be connected to each display, recorder and downlink to enable limitless switching of signals.

The VDSU-1407 offers aircraft integrators and installers a modern solution to traditional complex aircraft installations and simplified cabling which delivers cost and weight saving.

Video Distribution

The VDSU-1407 can manage a multitude of video signals that can be actively switched to output to up to 6 displays, multiple video recorders and video downlinks, plus an additional 4 fixed composite outputs for sending to other equipment on the aircraft.

ABOVE & BEYOND

SKYQUEST
AVIATION

CURTISS WRIGHT Controls
Defense Solutions
cwcdefense.com

Fact Sheet

VDSU-1407

Inputs

The signal inputs are delivered into the VDSU-1407 via three D38999 Signal In connectors.

Table 1: Video Inputs

Signal Type		Format	Connector
Composite	x22	PAL or NTSC	D38999
Y/C (S Video)		PAL or NTSC	D38999
RGBHV x8		VGA	D38999

Note: Input formats should be either PAL or NTSC, not a mixture of both.

Outputs

The Outputs of the unit are via nine D38999 connectors and four BNC connectors.

Table 2: Video Outputs

Output Description	Number of Connectors	Signal Output Types Available
Display Output Connectors	5 off	Composite Y/C RGBHV
Video Recorder Connectors	2 off	Composite Y/C
Aux Connector (Can be used for additional display if required)	1 off	Composite Y/C RGBHV
RF Links	1 off	Composite Y/C
Video BNC Outputs	4 off	Composite Note: The output is fixed (non-switchable)

The unit is controlled using a remote bus connected to all the other Skyquest LRU's in the system. Any Skyquest display linked into the system has the ability to select what channel to view, full control over the video recorders and allows video routing to be changed in flight to select a different signal to go to the recorders or downlinks.

The unit can be ordered with quad generators as an option if required. The quad card allows up to 4 composite images to be scaled to fit into a single display. The quad display has proven invaluable in missions where the user requires all his information in a single glance, and when combined with a touchscreen display, gives the user the ability to instantly bring up the image of interest to full screen just by touching the appropriate quad sector.

The VDSU-1407, when used with other Skyquest products in a full Video Management System really offers the user the most advanced and effective mission system available in the airborne surveillance market today.

For a full video demonstration of the VMS in action, please refer to the Curtiss-Wright Controls Defense Solutions website: www.cwcdefense.com

Table 3: Physical Specifications

Dimensions	257mm x 153mm x 215mm (not including mounting plate)
Weight	5.6kg
Power Consumption	95 watts

Table 4: Part Numbers and Available Options

VDSU-1407-xx-yy		
xx	01	1 Quad
	02	2 Quads
	03	3 Quads
	04	4 Quads
yy	01	1 Matrix
	02	2 Matrix
	03	3 Matrix
	04	4 Matrix

-HD = Adjusts the system timing for working with HD. But this does not allow HD routing around the system.