

Airborne Video Cameras

ECS

Entertainment Camera System

Securaplane Technologies' Entertainment Camera System (ECS) gives every aircraft passenger the "best seat in the house" — quality color video images that are often better than the view from any window seat. The Securaplane ECS was specifically designed, from component level to integrated system, for aviation. One to six color cam-

eras installed in various locations on the aircraft provide many different wide-angle, zoom and panoramic views depending on the number and type of cameras installed. The system can be customized to meet the individual needs of each customer.

A typical ECS includes the following key features:

Landscape Camera

- Provides a spectacular view of the landscape directly below the plane
- Mounted inside the fuselage looking through a window installed into the body of the aircraft
- Equipped with a 10:1 zoom lens

Panoramic Camera

- Positioned to look primarily forward and slightly down through a fixed, wide-angle lens to show an extraordinary view ahead of the aircraft
- Mounted inside the aircraft's fuselage looking through the same window as the Landscape Camera

Entertainment Camera Interface Unit

- Main interface between the ECS and the aircraft
- Installed in the electronics bay, it provides power and synchronization (and zoom control if applicable) to the cameras.
- Provide single-ended or balanced NTSC images to the aircraft's In-Flight Entertainment (IFE) system for viewing by the passengers and crew
- Provides a multiplexed output that cycles through the various camera views every fifteen seconds depending on flight mode or command signals from the IFE system
- Controlled via an ARINC 485 interface from the IFE system

Other Cameras

Vertical fin mounted and belly mounted aft-view cameras are available. Contact Securaplane for your specific requirement.



AVAILABLE FOR FACTORY INSTALLATION ON:

- **BOEING 747**
- **BOEING 767**
- **BOEING 777**

ADDITIONAL ECS FEATURES AND BENEFITS

- Electronic iris and shutter control
- No moving parts except the motorized zoom lens on the Landscape Camera
- Operates in light conditions ranging from bright sun or snow to full-moon night-flight conditions
- Anti-flare control compensates for bright "hot spots"
- Heated sapphire lens used on the externally mounted cameras prevents fogging and icing to ensure clear views in a wide range of atmospheric conditions
- Common camera housings, connectors and output characteristics are used in multiple mounts/applications to simplify the system and reduce production costs
- Each camera's viewing angle can be adjusted to satisfy a variety of applications



Panoramic Camera View

Specifications — Entertainment Camera System

Video output, interface unit	Up to 6 cameras, NTSC/RS-170A
Camera signal	Differential composite video
Resolution	768 horizontal pixels x 494 vertical pixels
Minimum sensitivity	0.5 lux, scene of illumination, full video output
Electronic shutter dynamic range	Greater than 100,000 to 1
Lens landscape camera	Auto-focus 7.5-mm to 75-mm focal length standard, other sizes available
Color correction	Auto white balance
Power	115 Vac, 400 Hz, 45 W (2 cameras), 100W (6 cameras), 28 Vdc optional

LRU Weights

Entertainment Camera Interface Unit (ECIU)	8.25 lb (3.74 kg) /3MCU Form Factor
Landscape Camera	4.25 lb (1.93 kg)
Panoramic Camera	1.45 lb (0.66 kg)
Vertical Fin and Aft Viewing cameras are available.	

MTBF (calculated)	Cameras: 26,579 hours/ ECIU: 38,109 hours
Environmental	Meets RTCA DO-160 / Boeing Approved for B747/767/777



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Information subject to change.
 Please contact Securaplane for current data.

