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Vision Systems to debut Electronically Dimmable Windows and IFE system at Singapore Airshow

As an architect of innovations offering tailored solutions to the aeronautics market, the leader in solar protection solutions Vision Systems will showcase its Electronically Dimmable Windows based on SPD technology (Suspended Particle Device) as well as its cutting-edge wireless IFE system at the forthcoming Singapore Airshow.

Vision Systems' Electronically Dimmable Windows significantly participate in enhancing the passengers' flying experience by improving visual and thermal comfort. When entering the aircraft, their sleek, elegant design, and their capacity to block heat and noise convey a peaceful, spaceful atmosphere in a cooler and quieter cabin. The passengers can then regulate daylight, glare and heat entering the aircraft by dimming their window from clear to dark and to any level in between, while enjoying the view, or set a dark mode if they wish to sleep.

Vision Systems' Electronically Dimmable Windows offer variable shading from fully clear to an extremely dark state (over 99.9% light blockage) and instant response time. They can be controlled with a touch panel directly on the window, with the flight attendant panel for cabin-wide master control from the crew, or automatically with integrated light sensors.

They also contribute to a reduction of air conditioning consumption as they default to their darkest possible state when the aircraft is on the ground, maximizing heat rejection and keeping the interior cooler. These solutions also block more than 99.9% of harmful UV light, protecting the interior from fading, and their fabrication involves noise barriers to keep the cabin quieter. Furthermore, they have no moving parts as the electronics is fully integrated, reducing maintenance costs and downtime. They can be applied to flat or curved surfaces (2D, 3D), plastic or composite glass. Vision Systems' customized solutions come as a whole to replace the entire inside window including the casing



Nuance xzone

and the dust panel. The installation is limited to a simple mechanical operation which is also very advantageous for the aftermarket. Moreover, they can be combined with Vision Systems' motorized shades.

These systems, originally intended to the cabin, are now considered for the cockpit, not only in the form of a dimmable sun visor but also as an add-on solution covering part or the entire window. They are available in multi-zone mode, in different tints, to tailor responses to the requirements of the customers, and include a partition solution for complete privacy (from transparent to opaque white).



Nuance Energiax3

Vision Systems' Electronically Dimmable Windows are already installed in Dassault F5X (skylight), Epic E1000, Airbus Helicopters H175, RUAG's refurbished Falcon 900 and HondaJet HA-420. There are currently several new projects under way, especially on commercial aircraft.

The other solution presented at the show is Visi-Stream, the wireless solution with high audio & video quality to provide the passengers with a more enjoyable experience.

One single light and compact box offers many functionalities such as broadcast, AVOD on PEDs, Moving Map or connectivity, which delivers internet access, email, video conferencing and VoIP. Other options include remote diagnosis, software upgrade and audio & video content updates via a ground platform. The solution comprises an extensive embedded media center with a large choice of content such as DRM movies, tourist information, advertising, newspapers, magazines and games.

Different configurations are possible with personal or company tablets for "DRM approved" streaming, and priority data flows for safety videos and announcements put the tablets on hold. For each customer solution, Vision Systems develops a customized user-friendly interface.

Singapore Airshow | 16-21 February | Changi Exhibition Center | Singapore Pavilion

