

PRO LINE 21 INTEGRATED DISPLAY SYSTEM

Advance your flight deck by simplifying it.



Upgrade a little, upgrade a lot. It's all up to you. Step up to Pro Line 21 avionics for your retrofit requirements.

Our retrofit Pro Line 21 Integrated Display System (IDS) makes vital information easily accessible and understandable. Experience crystal clear LCD displays and state-of-the-art functionality in a scalable retrofit solution. Pro Line 21 IDS flight decks are certified and flying today.

**Rockwell
Collins**

Building trust every day



Ensure next-generation functionality affordably

It's a given. Pilots need to see timely, specific information via the latest in digital displays. And passengers need to get to their destinations safely and on time. While there is a push to replace analog equipment with digital, the new technology must be flexible and cost-effective to meet aviation requirements today, and in the future. With Rockwell Collins Pro Line 21 Integrated Display System (IDS), you can maximize your situational awareness with the flexibility and affordability you need to realize your growth potential.

Our systems expertise ensures the seamless integration of next-generation displays and graphics with existing sensors, radios, flight management systems and autopilots. By taking a scalable approach, we offer a powerful upgrade without the full expense of a comprehensive retrofit application. Based on an in-depth understanding of both the airspace and pilots' requirements, we continually work to improve performance on the flight deck. Our newest option, Engine Indication, brings functionality to the next level, further reducing the total cost of ownership while creating a state-of-the-art flight deck with a clean, ultra-contemporary look. And it's only available from Rockwell Collins.

The Pro Line 21 IDS enhances situational awareness at every phase of flight by employing two, three or four large 10 x 8-inch liquid crystal displays (LCDs). Proven in demanding commercial applications, the highly reliable, high-resolution displays provide pilots with critical information at a glance. The Primary Flight Display (PFD) combines attitude, altitude, air speed and heading references with an easy-to-read graphical interface. The system's multifunction display (MFD) enables pilots to quickly reference information to facilitate strategic decision making. Of course, Pro Line 21 IDS incorporates the industry-leading functionality and reliability of Rockwell Collins Pro Line 21 avionics, enabling you to benefit from our continuous technological advances to the Pro Line 21 system.

With Pro Line 21 IDS, you can add functionality as your needs evolve. As a result, you get the latest technology, along with the best value retrofit display system solution available.

Add value to your aircraft.

Rockwell Collins Pro Line 21 IDS makes it easy to obtain full functionality to satisfy your future needs. Pro Line 21 IDS is capable of interfacing with most non-Rockwell Collins analog autopilots and existing Rockwell Collins autopilots, providing a flexible retrofit solution that requires minimal downtime and is cost-effective to install.

Create a flight deck of your choice.

We offer a full range of options so you can customize your flight deck to meet your needs. Expand your core capabilities, add value and lower your cost of ownership, all while ensuring reliable performance. Engine Indication is available on a limited number of models, with more to come. Other options include:

- ▶ Two, three or four display systems
- ▶ Integrated Flight Information System (IFIS)
 - Electronic charting
 - Graphical weather
 - Enhanced maps
- ▶ Communication, Navigation, Surveillance (CNS) sensors
- ▶ Attitude Heading Reference System (AHRS)
- ▶ Traffic Alert Collision Avoidance System (TCAS)
- ▶ Air Data Computer (ADC)
- ▶ Radio Tuning Units (RTUs)



See all the information you need

At the heart of our Integrated Flight Information System (IFIS) is the Rockwell Collins File Server Unit (FSU). The FSU uses a high-bandwidth Ethernet network to interface with the Pro Line 21 Multifunction Display Systems (MFD). The nearly limitless flexibility permits IFIS to deliver information in ways never before possible. And it's not just more information; it's better information that can be used to greatly enhance flight crew decision making.

With the push of a button, pilots can instantly access graphical weather, winds aloft, icing, turbulence and strategic information that may affect the flight. For improved flight deck organization and situational awareness, electronic charts can be displayed to provide approach plates, airport diagrams, chart NOTAMs and procedures, such as Standard Instrument Departures (SIDs) and Standard Terminal Arrival Routes (STARs). Another option with IFIS is enhanced maps adding geopolitical features, restricted and controlled airspace, and high- and low-altitude airways.

Rockwell Collins IFIS virtually eliminates the need for bulky chart binders and remote-mounted electronic flight bags. As a result of the reduced workload, enhanced situational awareness and improved flight deck organization, pilots can operate the aircraft with greater efficiency and therefore, enhance safety.



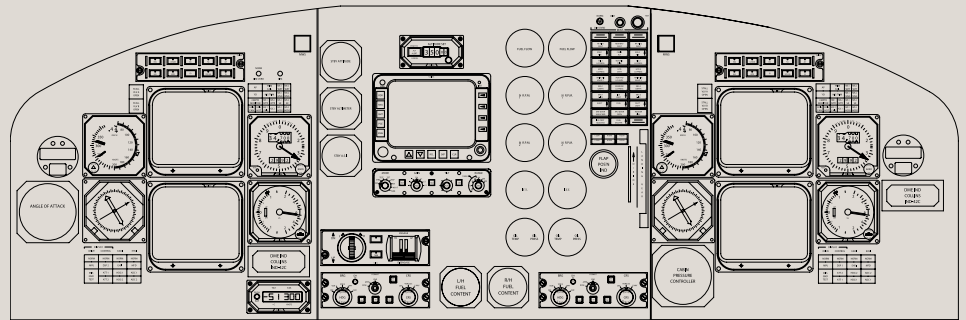
DIU-3010 Display Interface Unit

Rockwell Collins DIU-3010 Display Interface Unit is the backbone of the Pro Line 21 IDS. The lightweight DIU-3010 converts Commercial Standard Data Bus (CSDB) digital and analog data from existing air data, AHRS and radio sensors as well as from

digital and analog autopilots into ARINC 429 for interface with Pro Line 21's large graphics-capable LCD displays.

Previous generation flight deck

Rockwell Collins Pro Line 21 IDS upgrades the flight deck with large displays that expand your aircraft's capabilities and improve situational awareness. Cost of ownership is decreased through higher reliability and reduced unit count. Installation of a Pro Line 21 IDS system can also have a dramatic effect on payload, typically reducing the weight of the avionics suite by more than 50 pounds.



Flight deck with Pro Line 21 IDS - including engine indication (731 Family)

Rockwell Collins brings new functionality and features to Pro Line 21 IDS, including configurable Engine Indication, which is offered as an option. Engine Indication revitalizes the flight deck for a clean, contemporary look. The information displayed includes: N1, N2, inter-stage turbine temperature, fuel flow, oil temperature and pressure.



A small price to pay for superior situational awareness

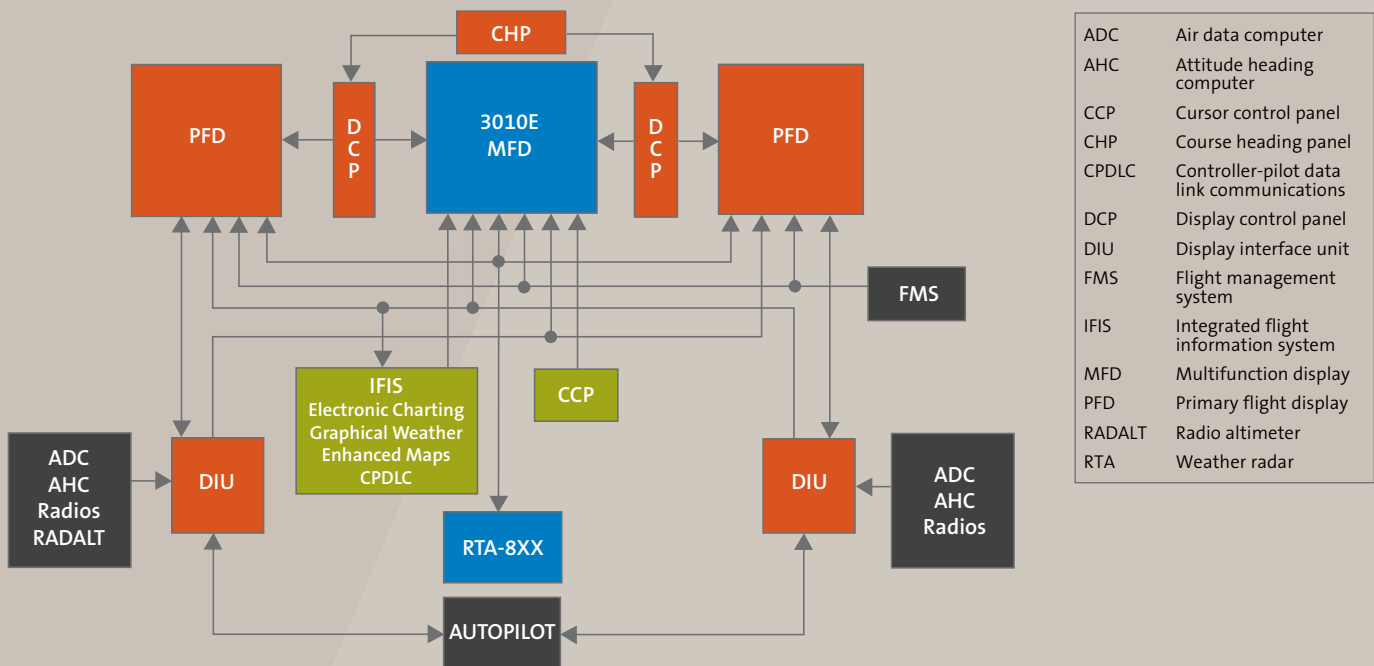
Interfacing with existing autopilots, flight management systems, radios and sensors on the aircraft (shown in black), Pro Line 21 IDS large-format flight displays interface seamlessly. Critical information is delivered to the pilot for superior situational awareness and control in all phases of flight.

The inherent flexibility of Pro Line 21 IDS allows levels of functionality to be added incrementally. For example:

1. Primary Flight Displays (PFDs) enable centralization of flight-critical information into easy-to-interpret formats (shown in red).

2. The MFD and PFD can interface with Rockwell Collins 800 series radar (shown in blue), and with existing TAWS, TCAS and other strategic planning information to the flight deck.
3. IFIS capabilities (shown in green) bring electronic charts, graphical weather and enhanced maps.

Rockwell Collins Pro Line 21 IDS allows aircraft operators to tailor a solution according to their operational requirements and budget parameters, providing superior flexibility and growth opportunities.



Building trust every day.

Rockwell Collins delivers smart communication and aviation electronics solutions to customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

For more information contact:

Rockwell Collins
 400 Collins Road NE
 Cedar Rapids, Iowa 52498
 319.295.4085

email: csmarketing@rockwellcollins.com
www.rockwellcollins.com



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