

Flight displays ›

integrated Secondary Flight Display (iSFD)



The Meggitt Avionics' integrated secondary flight display (iSFD) provides the best solution for standby flight information: attitude, altitude and airspeed, replacing two or three electro-mechanical cockpit standby instruments with a single 3ATI display unit.

The iSFD is a 3ATI cockpit instrument with a high resolution, colour-active matrix liquid crystal display (AMLCD), with new LED backlight and compatible with the latest AMLCD primary flight displays.

Within the iSFD:

- solid state sensors
- microprocessor system measuring aircraft pitch, bank attitudes and air data.

Air data is measured using the internal air data module (ADM) alternatively, if measured air data is available from an aircraft multi-function probe (MFP) or air data computer (ADC), the iSFD can receive and process the available digitally transmitted air data.

If digital magnetic heading data is available, e.g. from a Meggitt Avionics Magnetic Heading Sensor (MHS), the iSFD will also display aircraft magnetic heading.

Key features

- All solid state design
- High resolution full colour AMLCD display
- High brightness LED backlight
- Large useable screen area, fully anti-aliased
- Formats and brightness matched to primary displays
- 3ATI instrument panel clamp or flange bolt mount
- Internal Inertial Measurement Unit (IMU)
- Internal Air Data Module (ADM)
- Extensive built in test (BIT)
- Passive cooling—no internal fans

Key benefits

- 60 second initialization for mission readiness
- Numerous display options, including magnetic heading
- Excellent reliability
- Robust attitude performance using proven algorithms
- Accurate and stable air data performance with Static source error correction (SSEC) supports RVSM compliance
- Optional pitot-static pressure input
- Highly efficient LED backlight
- No ITAR components
- Future-proofing for long service life
- Service-proven robust attitude algorithms
- Short length, low weight and low power

Operation

Application of power to the iSFD initiates the attitude alignment process.

Barometric pressure is adjusted using the bezel-mounted rotary knob which, if pressed, selects standard (STD) barometric pressure.

- The HP/IN button selects either hectapascals (HP) or inches of mercury (IN) to display barometric pressure.
- The NAV button selects ILS display (glideslope, localizer or backcourse).

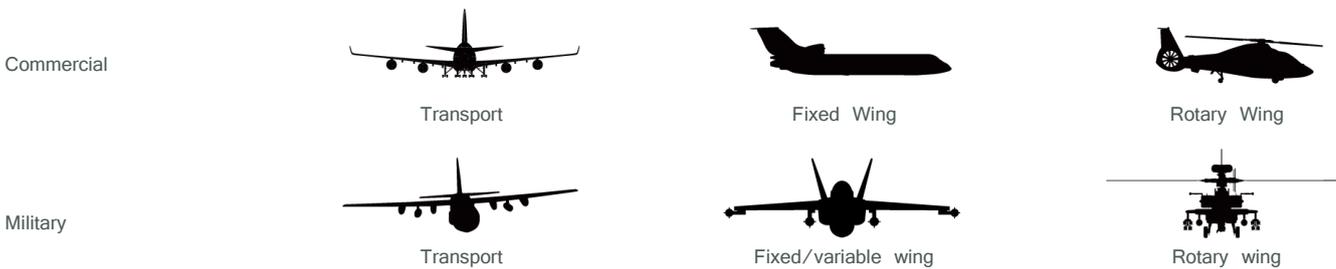
Extra capability

Different button applications are programmable, including a menu option for specific functions, such as control of display luminance, air data parameters and navigation data.

It provides warning of Vmo and Mmo (or Vne) using a red thermometer-style display and by changing the digital airspeed and Mach display colour to red.

A strip of ground (for pitch up) or sky (pitch down) remains visible at extreme pitch angles to provide a continued reference of aircraft attitude. Red warning chevrons appear at designated extreme pitch angles.

Applications



Key customers

AgustaWestland Helicopters, HondaJet, Bombardier Learjet, Hawker Beechcraft business jets, Boeing Apache

Specification

Size:	3ATI x 8 inches (204mm) long	
Weight:	4.2 lbs (1.928 kg)	
Power:	28 VDC 14W normal operating, 22W cold start (150 foot lamberts display luminance) 18 W normal operating, 26 W cold start (300 foot lamberts display luminance)	
Aircraft system interface:	ARINC-429, MIL-STD-1553B	
Mounting:	Standard 3ATI instrument clamp or flange bolt mounting	
Display:	Active area	2.4 x 2.4 inches (61 x 61mm)
	Resolution	300 x 300 pixels
Environmental:	Operating temperature	-40° C - +70° C
	Storage temperature	-55° C - +95° C
Standards:	Environmental	RTCA/DO-160F
	Hardware	Hardware DO-254 Level B
	Software	Software RTCA/DO-178B Level B
	TSOs	TSOs C106, C3d, C4c, C6d, C113

Specification subject to change. Images are for further info not a true representation.

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