

The GE 6883 MCDU provides a control display interface to the flight management system and other avionics subsystems.

GE Aviation's Multi-Purpose Control Display Unit (MCDU) employs a large full color AMLCD that complements the modern aircraft instrument panel and makes it suitable for both military and civil applications. The MCDUs are TSO'd to simplify certification in new or legacy aircraft. A touchscreen GUI, ARINC 664 and ARINC 661 capability are under development to provide a flexible GUI interface for advanced applications and connectivity. The MCDU is designed to support incremental stages of CNS/ATM implementation. GE has incorporated advanced display technology in its display product line for over two decades. The MCDU design offers improved reliability together with reduced size, weight, and power consumption. The result is reduced cost of ownership.

Benefits

- Large display maximizes visual presentations
- Communication using standard interfaces: ARINC 739, ARINC 615, ARINC 429 and RS-422
- Spare space to facilitate incorporation of added functions
- Proven reliability with 10,000 plus hours MTBF
- TSO'd to support retrofit and OEM installations
- On-aircraft software upload
- Flexible, easy to program, navigation interfaces
- Full color AMLCD
- DO-160 certified
- Proven designs with over 10,000 units fielded
- Passive convection cooling
- Built-in-Test (BIT)

Applications

- Global Positioning System (GPS)
- CNS/ATM
- Bitmap uploading
- ACARS
- Weather radar
- Flight management system
- SATCOM
- Radio communications control
- Video
- Secondary TCAS
- Moving map display
- Free flight /ADS-B



Retrofit installations

As the evolution of aircraft continues, GE responds to airline needs through upgrades to in-service aircraft. For over 25 years, GE has designed, developed, and integrated MCDU Display Units for various aircraft around the world. This experience encompasses documentation, installation, engineering support, and certification. Development efforts are in place to implement emerging technologies like touchscreen interfaces and ARINC 661 interfaces to provide the performance necessary to meet the challenges of tomorrow's aircraft.

Flight crews, aircraft operators, and aircraft manufacturers each benefit from GE's MCDUs. For flight crews, the MCDUs provide enhanced readability in customer specific and/or standard formats. For aircraft operators, the MCDU displays with their solid-state reliability and multi-functional interchangeability offers a welcome reduction in spares, troubleshooting, and maintenance costs. For aircraft manufacturers, GE's MCDU displays represent a cost-effective, state-of-the-art display solution delivering quality graphics and high visibility formats.

Maintainability

- Built-in-Test (BIT) detects and displays faults
- Modular construction and lower parts count simplify maintenance
- Expensive skilled labor is not required for maintenance
- Construction is modular with the display and plug-in circuit cards

Easy reconfigurability

- Built-in menu for switching between subsystems and/or video inputs
- Drop-in replacement unit for existing aircraft navigation systems
- Flexible reconfiguration of front panel keys
- Software uploading on aircraft

Product support

GE maintains the most modern up-to-date facilities where skilled personnel offer high-quality, repair and support services for avionics equipment. GE also maintains similar products from other suppliers.

Repair and support services include:

- Repairs and spares
- Customer support
- Logistics support
- Maintenance engineering



Available products

MCDU Series	Inputs and outputs	Specification
6883 MCDU	1 video input (NTSC/PAL)	Black/Gray bezels
	7 ARINC 429 inputs (+1 optional)	5.6" diagonal VGA (640 x 480) display
	1 ARINC 429 output (+1 spare and +2 optional)	non-NVIS or NVIS B options
	1 RS-422 interface (+1 spare)	Weather graphics bit map files
	0 to 5/28v AC/DC lighting input	ARINC 739/739A MCDU (14 lines of 24 characters text mode)
	0 to 28v AC/DC annunciator	Navigation Radio Tuning
	8 discrete inputs (+8 spare)	TSO certified (C113A)
	2 discrete outputs (+8 spare)	DO-160G
	Unit Power: 28 VDC, 1.5 Amps	Size: 7.125" x 5.75" x 7.2"
	*Heater Power: 28 VDC, 2 Amps	Weight: 6.78 lbs max.
	Ethernet optional	Operating Temperature: (*-40/-20 °C to +55/+70 °C)
		Vibration Level: Fixed Wing Aircraft and Helicopter

* indicates that Heater Power applied through separate rear connector pins.

"**spare**" indicates hardware components are populated, but no software is implemented.

"**optional**" indicates hardware circuitry is present but hardware components are not populated.