Quantum14 & Quantum11

Flight Display Systems

Quantum14

Quantum11

High Performance Fly-By-Wire

Quantum Flight Displays were developed by Avidyne to meet the needs of modern Part 23 light aircraft and piloted, remotely-piloted, and autonomous Advanced Air Mobility (AAM) aircraft including electric, hybrid Vertical Take Off and Landing (eVTOL).

Avidyne's Quantum line features large-screen, high-resolution hybrid-touch flight displays in 14-inch and 11-inch diagonal landscape format, and that feature multi-core processors that support primary (PFD) and multi-function (MFD) display capability with optional integrated ACR processor and MEMS Attitude Reference Sensor (ARS) with external Air Data Computer (ADC) & MAG/OAT.

Quantum14 ands Quantum11 displays have been specifically architected to be easily customized to support the unique requirements of individual AAM aircraft. Custom sizes, resolutions, and bezels can be developed using the existing hardware & AviOS building blocks on an NRE basis.

When coupled with Quantum Remote Sensor Packs, Front Panel Services Module (FPSM) provides support for all bezel functions including buttons, lighting, ambient light sensor, etc.

Proven AviOS Software

AviOS software is the culmination of more than 20 years of PFD/MFD software development flying thousands of hours in thousands of aircraft. AviOS is a single code baseline that is configured and built to support various feature sets for each specific display configuration.

Fully Customizable

The unique attributes of the AAM market often dictate the need for significant software customization to adapt the avionics software for each aircraft & mission.

Quantum14 or Quantum 11 Flight Display

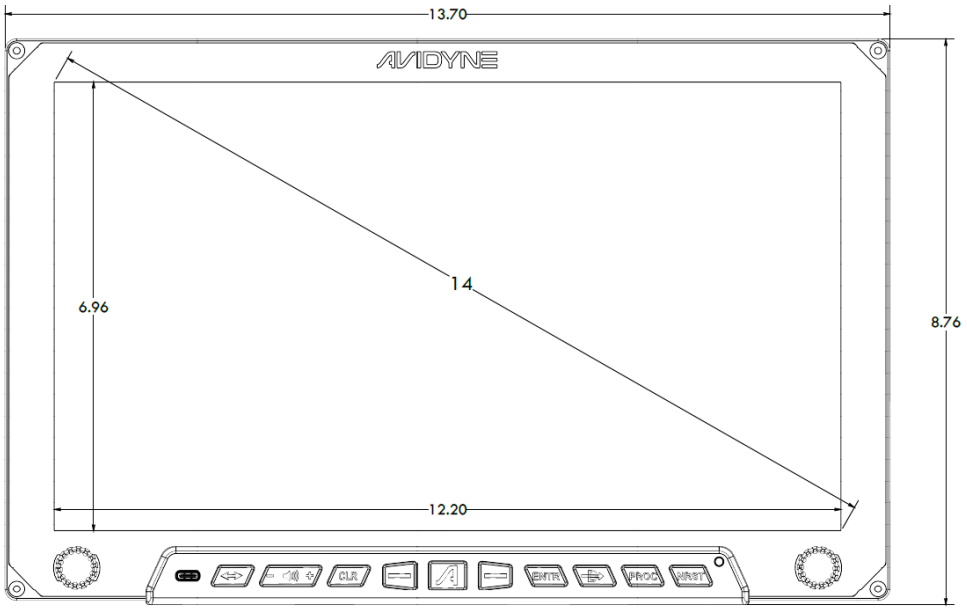
QFC1000 Flight Computer

Avidyne's Quantum display architecture allows customer-provided requirements and specifications to be implemented as ARINC653 tasks in independent DAL partitions of the AviOS and presented in dedicated areas on Quantum displays.

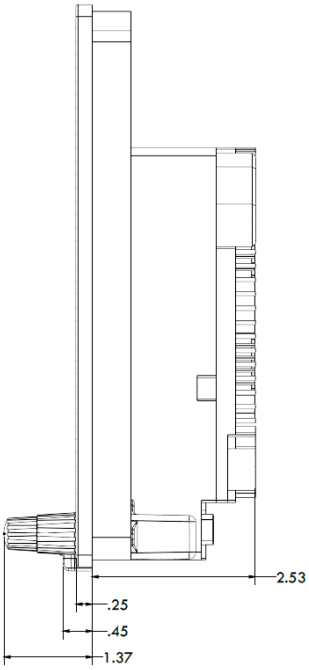
QUANTUM

By AVIDYNE

Quantum14 & Quantum11 Flight Displays



Quantum14 Display



Specifications

	Quantum 14	Quantum 11
Display Area:	14” dia	11” dia.
Resolution:	3840x2160	2560x1600
Weight:	6.50lbs (3.85kg)	6.0lbs (2.72kg)
w/optional ACR	8.50 lbs (3.85kg)	7.5lbs (3.40kg)
Height:	8.76” (22.25cm)	7.50” (19.05cm)
Width:	13.70” (34.79cm)	11.25” (28.75cm)
Depth: behind panel	2.53” (6.42cm)	2.53” (6.42cm)

Power Requirements

Power: 11-33vdc
1.64A @ 28vdc

Environmental

DO160G qualified

- To 35,000ft
- -20 ° C to +55°C
- Short Term -40°C to +70°C

Cooling

No external cooling required

I/O	QTY
ARINC429 In	5
ARINC429 Out	2
232/422/485 (configurable)	8
ARINC825 CAN	6
Ethernet (UDP point to point)	4
Video in	1
Discrete in	2
Discrete out	2

Compliance

DO-178: DAL B, C, and D for software, DAL B for GPS, ARS, ADC, and certified I/O.

DO-254: DAL B for all complex hardware functions.

DO-160: F2/F2/W/F2, B, A, E, U/G, X, X, X, X, X, Z, B, A, B, ZC, W, M, B4HZL4/B3K4L4, X, X, A, X

TSOs: TSO-C2d, TSO-C3e, TSO-C4c, TSO-C6e (MAG), TSO-C8e, TSO-C10b, TSO-C34e, TSO36e, TSO-C40c, TSO-C63e, TSO-C106a (ADC), TSO-C110a, TSO-C112e, TSO-C113b, TSO-C118a,TSO-C146e, TSO-C147a, TSO-C151d, TSO-C157c, TSO-C165b, TSO-C194, and TSO-C195b and additional TSOs as required for aircraft systems integration.

Avidyne Corporation
710 North Drive
Melbourne, FL 32934
+1.321.751.8520
www.avidyne.com/quantum

Avidyne reserves the right to make changes to product specifications and design features without notice.

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