



AVIONICS
NETWORKS

THE MOST COST-EFFECTIVE NETWORKING SOLUTION IN AVIATION

Avionics Networks: Where the sky is not the limit, we strive to go beyond it



SkyFi6™

IRIDIUM SATELLITE, SECURE WIFI 6 ROUTER, 4G/LTE, IFE, WIRELESS GATEWAY, ARINC 429, AND ONBOARD SERVER

SkyFi6™

is the perfect WiFi router and IFE for cost-effective and reliable inflight connectivity.

This amazing product combines a powerful motherboard with a microcontroller to create an onboard computer that is capable of handling demanding video streaming and complex 3D graphics, as well as WiFi communications and security. That means you can stay connected during your flight, and even control cabin features like lights and temperature from your seat.

But that's not all. Avionics Networks/SkyFi6 also provides significant weight and power savings over other similar products, making it the perfect choice for any pilot who wants the very best in onboard technology. So don't wait any longer - start enjoying the benefits of Avionics Networks/SkyFi6 today!

Avionics Networks' SkyFi6 Aviation Wi-Fi 6 (802.11ax) Firewall/Router/Media Converter and IFE with HDMI In/Out for Bulkhead Display and a built-in computer with up to 12TB SSD for storage is the first of its kind. Our hardware solution is compact and consequently reduces the space required to store equipment in the airplane, along with aluminum and magnesium enclosure making it lightweight. It carries a powerful ARM Octa-Core 64-bit computer with 8GB RAM to increase the range of applications and functionality you can offer passengers from IFE to Machine Learning.

Now featuring Iridium satellite communication for global coverage, 4G/LTE connectivity for high-speed internet access, and ARINC-429 data collection for predictive analysis, the SkyFi6 further expands its capabilities to meet the demands of modern aviation.

Offered in three (3) different OS flavors to accommodate any software solution based on Android, Ubuntu 20.04 Server, or VMware ESXi, it can run web servers and virtual machines, for example: From HTML pages for video and music to Artificial Intelligence with Object Identification and other Machine Learning applications, as well as Lighting Controls and Cabin Controls, etc. With SkyFi6, the possibilities are limitless!"



Specifications

Hardware

CPU/GPU

Amlogic A311D2 2.2GHz Quad core ARM Cortex-A73 and 2.0GHz Quad core Cortex-A53 CPU ARM Mali-G52 MP8(8EE) GPU up to 800MHz 8K 24fps decoder & low latency 4K H.264/H.265 50fps encoder Support multi-video decoder up to 4Kx2K@60fps+1x1080P@60fps HDR10, HDR10+, HLG and PRIME HDR video processing TrustZone based security for DRM video streaming

Wi-Fi 6

MIMO 4x4 2.4G Wi-Fi + MIMO 4x4 5G Wi-Fi

Maximum wireless speeds are 573Mbps in 2.4g 802.11ax mode and 1201Mbps in 5.8G 802.11AX mode IEEE 802.11ax/ac

ANT Connector

4G/Cellular (subscription based service)

RP-SMA Male connector x 8

LTE Bit rate 150 Mbps (DL), 50 Mbps (UL)

LTE Bands B20 (800 MHz), B8 (900 MHz), B3 (1800 MHz), B1 (2100 MHz), B7 (2600 MHz)

3G Bit rate 42.0 Mbps (DL), 5.76 Mbps (UL)

3G Bands 900, 2100 MHz

WAN Interface

LAN Interface

Fiber (option p/n SKYFI6-020-00)

USB 3.1 ports (option p/n SKYFI6-021-00)

ARINC 429

Bluetooth

RAM

Satellite

Ethernet 1000 Mbps, auto MDI/MDIX, Connector 3 x RJ45 Protection 1.5-kV built-in magnetic isolation protection

Ethernet 1000 Mbps, auto MDI/MDIX, Connector 3 x RJ45 Protection 1.5-kV built-in magnetic isolation protection

2x 2.5Gbps SFP optical ports. This option excludes USB 3.1

2x USB 3.1 USB-A female connector. This option excludes SFP.

Auto Baud Low and High Speed ARINC 429. For recording ARINC 429 avionics data in real time. Over-current and ESD protection to +/-30kV

Bluetooth 5.1

8GB LPDDR4X 2016MHz, 64bit

Iridium Certus®, worldwide connectivity

Software

Network and Routing

IFE FlightFlix™ (subscription based)

Configuration

Artificial Intelligence/Machine Learning

Network Security

VPN tunnelling

WiFi Security

NAS

Security

HDMI Input

HDMI Output

Accelerometer

OS

Virtual Machine Support

Mechanics Dimensions

Mounting

Weight

Enclosure Rating

Power Input

Power Consumption

Environment

Regulatory Approvals

Accessories

DHCP server, NAT/PAT, VRRP, dynamic DNS client, DNS proxy, VLAN, QoS, DMVPN, NTP client/server, IGMP, BGP, OSPF, RIP, SMTP, SMTPS, SNMP v1/v2c/v3, backup routers, PPP, PPPoE, SSL, port forwarding, host port routing, Ethernet bridging, network server.

Offline streaming with 1000+ titles in HD (1080p) and 4K resolution. Content updated quarterly via USB dongle if WAN/IFC can't be used for download. Content updated monthly via WAN or 4G(when subscribed to service)

SSH, Web Browser

TensorFlow Lite

HTTPS, SSH, VPN tunnels, SFTP, DMZ, firewall (IP filtering, MAC address filtering, inbound/outbound port filtering)

Open VPN client and server and P2P, L2TP, PPTP, GRE, EasyVPN, IPsec with IKEv1 and IKEv2

WPA3, WPA3-Enterprise

SSD options 4, 8, 12TB, Full Disk Encryption: LUKS Disk Encryption

TMP 2.0 (Trusted Platform Module) release Q2/2023 - Via Software Upgrade, Secure Boot, release Q1/2023 - Via Software Upgrade

H.264 and H.265 encoding

HDMI2.1, up to 4K2K HDR Video, Dynamic HDR, CEC and HDCP 1.4/2.3

KXTJ3-1057 Tri-axis Digital Accelerometer

Ubuntu 22.04 (P/N SKYFI6-01), Android 11 (P/N SKYFI6-02), Vmware ESXi-Arm (P/N SKYFI6-03)

VMWARE or VirtualBox

(W x H x D) 165.1 x 76.2 x 215.9 mm (6.5" x 3.0" x 8.5")

wall mount brackets, adjustable rails

1.9 kg (4 lbs. 3oz.)

IP30

28 VDC

14W

Operating Temperature 0 ~ 55°C

Storage Temperature -40 ~ 85°C

Operating Humidity 10 ~ 95% RH

DO160 Class M (in progress)

STC (in progress)

FCC/RED/NCC

WiFi Antennas Kit (8)

1967000022-01(included)

4G/LTE Antennas Kit (2) 1967000035-01 (included)



PATENT PENDING

CONTACT AVIONICS NETWORKS TODAY!

to learn more about the SkyFi6 or to place an order.

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