

RETROFIT

Gogo® 2Ku In-Cabin Network

Key components of the Gogo FLEX 2Ku Inflight System

The Gogo 2Ku in-cabin network consists of the essential airborne hardware that allows airlines to deliver inflight internet and wireless on-demand entertainment to passengers onboard.

The in-cabin network includes the following hardware:

- ▶ ACPU-2
- ▶ 802.11ac cabin wireless access points (acWAPs) and Wi-Fi antennas
- ▶ Data content loader (optional)

The Airborne Control Processor Unit (ACPU), the onboard server, is the heart of the in-cabin network. With a dual-blade architecture—which allows more processing power and flexibility to offer gate-to-gate connectivity—this onboard server enables even more inflight experiences for passengers and operational possibilities for flight crew and maintenance teams.

The acWAPs provide an interface for Gogo’s Passenger Experience and Connected Aircraft Services and all Wi-Fi-enabled devices. Each acWAP is equipped with three Wi-Fi antennas that generate the in-cabin Wi-Fi signal. Depending on the size of the aircraft, there may be up to nine acWAPs.



ACPU-2



acWAP



ANTENNAS

PRODUCT HIGHLIGHTS

- ▶ Available as part of the in-cabin network for Boeing 737-MAX
- ▶ Available on Airbus Interior Services (AIS) and Boeing Global Services (GBS) retrofit programs
- ▶ Optional high-capacity ACPU-2 delivers even more storage
- ▶ ACPU-2 is installed on 1000+ commercial aircraft
- ▶ Efficiently upload and download data while aircraft is in the air or on the ground
- ▶ Support for up to 60 concurrent SD video streams per acWAP
- ▶ Can store more than 2,000 hours of video content (2.88 TB of storage)
- ▶ acWAPs provide ethernet switching capabilities—can be “daisy-chained” to simplify installation and reduce overall system weight
- ▶ Each acWAP operates with three antennas supporting both the 2.4 GHz and 5 GHz ISM bands
- ▶ The multi-antenna approach ensures optimized performance through multiple-input, multiple-output (MIMO)

ACPU-2 specifications

SPECIFICATIONS	ACPU-2
Width	7.6 in. (19.3 cm)
Height	7.83 in. (19.9 cm)
Depth	12.8 in. (32.5 cm)
Weight	15.5 lbs. (7.7 Kg)
Interface	-
Power Req.	115 VAC WF, 360-800 Hz, 145 Watts max
Cooling Req.	34 CFM in either direction
Memory per blade	16 GB
Solid State Storage (standard capacity)	2.88 TB (2x 960 GB, 2x 480 GB)
Solid State Storage (high capacity)	7.7 TB (2x 3.84TB, 2x 480 GB)
Hours of content (standard)	2000+
Hours of content (high capacity)	6-7x
Supported concurrent internet sessions	AC wireless access points support 60x 1 Mbps video streams
Location	Rack mounted
MCU	6 MCU
Connections	ARINC 600

CHARACTERISTICS	ACPU-2
Case	Rugged metal housing
Processor	Two Quad-Core mobile CoreTM-i7 processors, 4x 2.1/3.1 GHz (1 Quad-Core mobile CoreTM-i7 processor per blade)
Memory per blade	32 GB total RAM w/12 MB L2 (16 GB DDR3-1600 w/6 MB L2 per blade)
Ethernet	5 GBE and 7 FE
Flash	CFast (SATA CF) Accessible via front maintenance panel
USB	2 x USB 2.0 (Accessible via front maintenance panel)
ARINC 429, ARINC 717	ARINC 429: 3 Rx/2 Tx, ARINC 717 (Bi-Polar): 1 Rx
Aircraft discretes	4 input/20 output ARINC 628 compatible discretes
Terrestrial modem	LTE Modem (Sierra Wireless MC7455)
Wi-Fi	802.11a/b/g/n/ac Dual Band (2.4/5GHz) WiFi client based on Intel 7260
LED Indicators	Power, 2 status indicators, 2 link indicators 6-character numeric E-ink (persistent) display
OS/ File system	Linux Debian 7.1: rootfs, ext4, ext2, tmpfs
Fault tolerance	Internal monitoring of temperatures and voltages
Compliance	DO-160-G