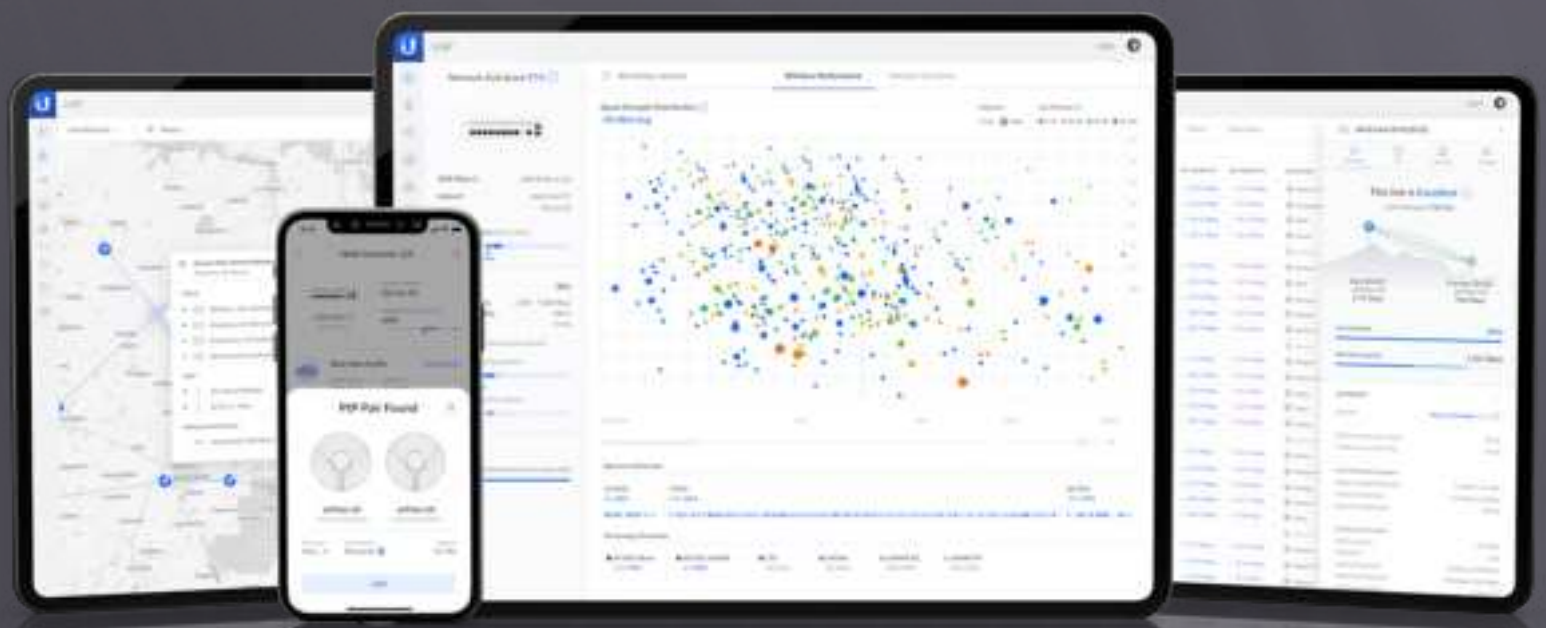
airFiber® 60 HD

Datasheet
AF60-HD

UISP



airFiber 60 HD

2 km, multi-gigabit, 60 GHz bridge with SFP+ support.

The airFiber 60 HD (AF60 HD) is a 60 GHz radio designed to create superior, mid-range, point-to-point (PtP) links up to 2 km. The AF60 HD delivers low-interference, low-latency throughput within the 60 GHz spectrum. Compact and highly durable, the AF60 HD also features integrated GPS and a Bluetooth management radio to simplify setup, configuration, and monitoring. This bridge is ideal for ISPs looking to maximize signal linking with cost-effective equipment.

Mechanical

Dimensions	Ø189 x 89 mm (Ø7.4 x 3.5")
Weight	Without Mount: 1.8 kg (3.9 lb) With Mount: 2.95 kg (6.5 lb)
Enclosure Materials	Aluminum Alloy, UV Stabilized Plastic
Mount Material	Stainless Steel (SUS304)
Mount	60G Precision Alignment Pole Mount (Included)
Wind Loading	64 N at 200 km/h (14.39 lbf at 125 mph)
Weatherproofing	IPX6

Hardware

Processor	Quad-Core ARM® Cortex® A72 at 1.6 GHz
Memory	2 GB DDR4
Networking Interfaces	(1) 10/100/1000 Mbps RJ45 Ethernet (1) 1/10 Gbps SFP+
Button	Factory Reset
RF Connections	Internal
Max. Power Consumption	29.31W
Power Method	Passive PoE 4-Pairs (1, 2+; 3, 6-) (4, 5+; 7, 8-) or 2-Pairs (4, 5+; 7, 8-)
Power Supply	48VDC, 0.65A Gigabit PoE Adapter (Included)
Supported Voltage Range	48VDC ± 10%
Operating Temperature	-40 to 55° C (-40 to 131° F)
Operating Humidity	5 to 95% Noncondensing
Certifications	FCC, IC, CE, terragraph

LEDs

Power	Flashing White: Bootup in Progress White: Not Connected to UISP™ Controller Blue: Connected to UISP Controller
Ethernet	Flashing Blue: Ethernet Activity
GPS	Blue: Receiving at Least (4) GPS Satellite Signals
60G	Blue: Active Connection

System

Maximum Throughput	60 GHz: 3.8 Gbps/6 Gbps (With Channel Bonding Enabled)
Maximum Range	2 km
Encryption	WPA2-PSK (AES)
Uplink/Downlink Ratio	50/50

Software

OS	airFiber®
Modes	PtP Only
Services	UISP, Ping Watchdog, Web Server, SSH Server, NTP Client, System Log, Device Discovery
Utilities	Beamform Info, Discovery Utility, Ping, Trace Route, Speed Test
Network	Bridge Mode
Wireless Settings	GPS Sync* *GPS is used to populate UI/UX elements.
Management interface	Bluetooth management for easy setup over UISP App WEB UI
Minimum Software Requirements	Modern Web Browser or Android/iOS Smartphone

RF

Operating Frequency*	57 to 66 GHz *Depends on regulatory region.
GPS	Yes
Channel Bandwidth	2160 MHz/4320 MHz (With Channel Bonding Enabled)
Operating Channels	58320, 59400, 60480, 61560, 62640, 63720, 64800 MHz* *It depends on the channel bandwidth
Beamwidth	HPOL: NaN (The Antenna is Only Vertically Polarized) VPOL: 3° Elevation: 3°
Electrical Downtilt	0°

FCC

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions.

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

The following apply to Class A products

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operations of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

ISED Canada

CAN ICES-3(A)/NMB-3(A)

This device complies with ISED Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems. CAN ICES-3(A)/NMB-3(A)

Le présent appareil est conforme aux CNR d'ISDE Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage;
2. l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux. RF Exposure Warning

The antennas used for this transmitter must be installed to provide a separation distance of at least 60(FCC/IC) cm from all persons and must not be located or operating in con junction with any other antenna or transmitter.

Les antennes utilisées pour ce transmetteur doivent être installé en considérant une dis tance de séparation de toute personnes d'aumoins 60(FCC/IC) cm et ne doivent pas être localisé ou utilisé en conflit avec tout autre antenne ou transmetteur.