

FEATURES

- Low latency audio streaming in stereo
- Designed for assistive listening, audio description, interpretation channels and silent screen applications
- Personal hearing assistant
- BYOD: zero maintenance (no storage, servicing, charging, or staff training is required)

MobileConnect - Sennheiser's WiFi based system for your venue that enables low-latency transmission of audio content to mobile devices such as smartphones and tablets. With MobileConnect, which consists of a ConnectStation, a real-time streaming server and the MobileConnect app, you can easily provide assistive listening for hearing impaired, audio description for visually handicapped persons, interpretation channels or audio for silent screens to your venue. Sennheiser's MobileConnect system embraces the bring-your-own-device (BYOD) principle enabling users to use their own mobile devices on the MobileConnect WiFi network. The system consists of a ConnectStation, a central unit for integrating different audio streams and transmitting them via WiFi access points to the personal mobile devices.



ARCHITECT'S SPECIFICATION

A multi channel streaming system that allows transmission of audio description, assistive listening, multilingual audio content, and alternative content to your mobile devices using the MobileConnect App, which is available for iOS and Android mobile devices.

The system shall be comprised of a ConnectStation (central unit) for analog and digital audio inputs/outputs, as well as an optional WLAN access point for transmitting the audio over the air to the mobile devices containing the MobileConnect App. The ConnectStation can also be integrated into an existing WLAN network.

The central unit shall be equipped with four servo-balanced line inputs (1/4" TRS jack sockets, mono) for connecting audio sources. Input impedance shall be 10 k Ω . Input sensitivity shall be selectable with the following options: Low Gain, +4 dBu, or -10 dBV. Input level for 0 dBFS @ Low Gain shall be +19 dBu, input level for 0 dBFS @ +4 dBu shall be +13 dBu and input level for 0 dBFS @ -10 dBV shall be +2 dBV. The maximum input sensitivity shall be +19 dBu.

The central unit shall have a frequency response of 5 to 21,500 Hz @ 44.1 kHz and -0.5 dB. Signal-to-noise ratio shall be 116 dBA. THD at -3 dBFS shall be less than -110 dB. The maximum sampling rate shall be 48 kHz and the maximum A/D resolution shall be 24 bit.

The central unit shall be equipped with a 9-pin Sub-D connector which shall provide SPDIF input to the system using the delivered RCA inputs. The input shall be used either as SPDIF or as AES. For AES a separate XLR connector shall be needed (not included in the delivery).

The central unit shall be equipped with a 15-pin Sub-D connector to provide audio breakout, which shall deliver connections for line in and out, MIDI in and out and phones. The system shall be supplied with an analog audio breakout using unbalanced RCA input and output, breakout for MIDI in and out and phones out. MIDI in and out as well as line out shall be inactive.

The central unit shall be equipped with an optical input and output to be used either as ADAT or SPDIF. When SPDIF is enabled, the SPDIF in the Sub-D connector cannot be used and the optical input can only be used as an AES input. The optical output shall be inactive.

The central unit shall be equipped with three RJ-45 ports: one for connecting the access point, one for directly connecting a laptop/computer for configuration purposes and one for accessing remote services and support over the Internet or for connecting to an existing network infrastructure.

The central unit shall operate on 100 to 240 V AC and 50/60 Hz. Power consumption shall be 60 W nominal. Operating temperature shall range from +5°C to +45°C (+41°F to +113°F), storage temperature shall range from -20°C to +75°C (-4°F to +167°F), operating humidity shall be 10% to 90% non-condensing at +25°C (+77°F), storage humidity shall be 5% to 95% non-condensing at +25°C (+77°F). The central unit shall be rack-mountable.

The MobileConnect App shall allow the user to select any one of the four channels offered. The channels shall transmit in stereo and mono.

The optional access point shall feature an auto-sensing/auto-MDX Ethernet port (RJ-45). The access point shall operate in the following frequency bands: 2.4 to 2.484 GHz, 5.15 to 5.25 GHz, 5.25 to 5.35 GHz, 5.47 to 5.725 GHz and 5.725 to 5.85 GHz.

The access point shall operate on 12 V DC power supplied by an external power supply. Power consumption at the DC input shall be typical 3.5 W (idle: 1.5 W; peak: 8 W). Operating temperature of the access point shall range from +0°C to +50°C (+32°F to +122°F), operating humidity shall be 10% to 95% non-condensing.

Housing dimensions (W x D x H) shall be as follows: central unit: 483 x 240 x 44 mm (19" x 9.5" x 1.7"), access point: 158 x 158 x 40 mm (6.2" x 6.2" x 1.57"). Approximate weights shall be as follows: central unit: 2.9 kg (6.39 lbs.), access point: 350 g kg (0.77 lbs.). The system shall be the Sennheiser MobileConnect.

SPECIFICATIONS

max. no of connected streaming clients	50	Input	4x ¼" TRS jack, servo balanced
		Input impedance	10 kΩ
		Input sensitivity	Low gain, +4 dBu, -10 dBV
		Input level for 0 dBFS @ low gain	+19 dBu
		Input level for 0 dBFS @ +4 dBu	+13 dBu
		Input level for 0 dBFS @ -10 dBV	+2 dBV
ConnectStation CS1-M		AUDIO BREAKOUT	
Dimensions (W x H x D)	48.3 cm x 24.0 cm x 4.4 cm (19.0" x 9.5" x 1.7")	15-pin analog breakout cable	
Weight	2.9 kg (6.39 lbs)	Resolution AD	24 bit
Power supply	100 – 240 VAC, 50/60 Hz, max. 600 mA	Signal-to-noise ratio (SNR)	109 dB RMS unweighted 111 dbA @ 44.1 kHz
Power	60 W nominal	THD @ -3 dBFS	-101 dB, < 0.001%
Operating temperature range	+5°C to +45°C (+41°F to +113°F)	THD+N @ -3 dBFS	-99 dB, < 0.0015%
Storage temperature range	-20°C to +75°C (-4°F to +167°F)	Crosstalk	108 dB
Operating humidity range	10% to 90% @ 25°C non-condensing	Frequency response AD @ 44.1 kHz, -0.5 dB	5 Hz to 21.5 kHz
Storage humidity range	5% to 95% @ 25°C non-condensing	Input line	phono unbalanced
		Input impedance	10 kΩ
		Input sensitivity	Low gain, +4 dBu, -10 dBV
		Input level for 0 dBFS @ low gain	+19 dBu
		Input level for 0 dBFS @ +4 dBu	+13 dBu
		Input level for 0 dBFS @ -10 dBV	+2 dBV
ANALOG IN			
Resolution AD	24 bit		
Sample rate	48 kHz		
Signal-to-noise ratio (SNR)	113 dB RMS unweighted 116 dbA @ 44.1 kHz		
THD	< -110 dB, < 0.00032%		
THD+N	< -104 dB, < 0.00063%		
Crosstalk	> 110 dB		
Frequency response AD @ 44.1 kHz, -0.5 dB	5 Hz to 21.5 kHz		

SPDIF/AES

9-pin digital breakout cable with two RCA connectors as coaxial SPDIF I/O

Inputs	1x RCA (XLR), transformer balanced, galvanically isolated, according to AES3-1992
Outputs	not in use
High-sensitivity input stage	< 0.3 Vpp
SPDIF compatible	IEC 60958
Lock range	27 to 200 kHz
Jitter	< 0.025 UI (4.4 ns @ 44.1 kHz)
Jitter when synced to input signal	< 1 ns
Jitter suppression	> 30 dB (2.4 kHz)
Type	AES3-1992
Connection	XLR balanced (not included in delivery)
Impedance	110 Ω
Level	0.2 V up to 5 Vss

Type

Connection	IEC 60958
Impedance	RCA
Level	0.2 V up to 5 Vss

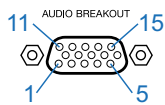
ADAT/SPDIF

Input	TOSLINK
Output	not in use
Standard	8 channels, 24 bit, up to 48 kHz
Sample split (S/MUX)	4 channels, 24 bit, 96 kHz
Lock range	31.5 to 50 kHz
Jitter when synced to input signal	< 1 ns
Jitter suppression	> 30 dB (2.4 kHz)

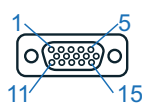
PINOUTS

AUDIO BREAKOUT

ConnectStation



Cable

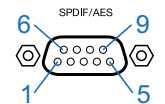


15-pin Sub-D connector pinout

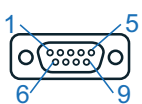
1 Line In Left –	6 Line In Left +	11 Line In Right –
2 Line In Right +	7 Line Out Left –	12 Line Out Left +
3 Line Out Right +	8 Line Out Right –	13 Phones Left
4 MIDI Out (5)	9 GND/Shell	14 Phones Right
5 MIDI In (4)	10 MIDI In (5)	15 MIDI Out (4)

SPDIF/AES

ConnectStation



Cable



9-pin Sub-D connector pinout

1 GND	4 AES Out +	7 SPDIF In –
2 SPDIF Out +	5 AES In +	8 AES Out –
3 SPDIF In +	6 SPDIF Out –	9 AES In –

SPECIFICATIONS

Ruckus ZoneFlex 7372 Access Point (Extract)

Dimensions (W x D x H)	15.8 cm x 15.8 cm x 4 cm (6.2" x 6.2" x 1.57")
Weight	350 g (0.77 lbs)
Operating temperature range	0°C to 50°C (+32°F to +122°F)
Operating humidity range	10% to 95% non-condensing
Power supply	DC input: 12 V DC, 1.0 A
Power consumption at DC input	<ul style="list-style-type: none"> • Idle: 1.5 W • Typical: 3.5 W • Peak: 8 W
Ethernet ports	1 auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45
RF power output	(aggregated) maximum power varies by country <ul style="list-style-type: none"> • 26 dBm for 2.4 GHz • 24 dBm for 5 GHz
Frequency bands	<ul style="list-style-type: none"> • IEEE 802.11b/g/n: 2.4 – 2.484 GHz • IEEE 802.11a/n: 5.15 – 5.25 GHz; 5.25 – 5.35 GHz; 5.47 – 5.725 GHz; 5.725 – 5.85 GHz

Operating channels

- US/Canada: 1-11
- Europe (ETSI X30): 1-13
- Japan X41: 1-13
- 5 GHz channels: country-dependent

Certifications

- US, Europe, Australia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Hong Kong, India, Indonesia, Israel, Japan, Korea, Malaysia, Mexico, New Zealand, Peru, Philippines, Saudi Arabia, Singapore, South Africa, Taiwan, Thailand, UAE, Vietnam
- WEEE/RoHS compliance
 - EN-60601-1-2 (Medical)
 - Wi-Fi Alliance
 - EN50121-1 Railway EMC
 - EN50121-4 Railway Immunity
 - IEC 61373 Railway Shock & Vibration

Lock options

- Hidden latching mechanism
- Kensington Lock Hole
 - T-bar Torx
 - Bracket (902-0108-0000) Torx screw & padlock

DELIVERY INCLUDES

MobileConnect + WIFI EU/UK/US

- 1 ConnectStation CS1-M
- 1 Power supply cable, length: 1.8 m
- 1 Ruckus ZoneFlex 7372 access point
- 1 Ruckus power supply adapter for access point
- 1 15-pin D-sub to 4x RCA analog, 2x MIDI, 1x phones
- 1 9-pin D-sub to 2x RCA digital (SPDIF)
- 1 Toslink cable, 2 mm, length: 2 m
- 1 Quick Guide
- 1 Safety Guide

MobileConnect EU/UK/US

- 1 ConnectStation CS1-M
- 1 Power supply cable, length: 1.8 m
- 1 15-pin D-sub to 4x RCA analog, 2x MIDI, 1x phones
- 1 9-pin D-sub to 2x RCA digital (SPDIF)
- 1 Toslink cable, 2 mm, length: 2 m
- 1 Quick Guide
- 1 Safety Guide

Note: no WIFI access point included

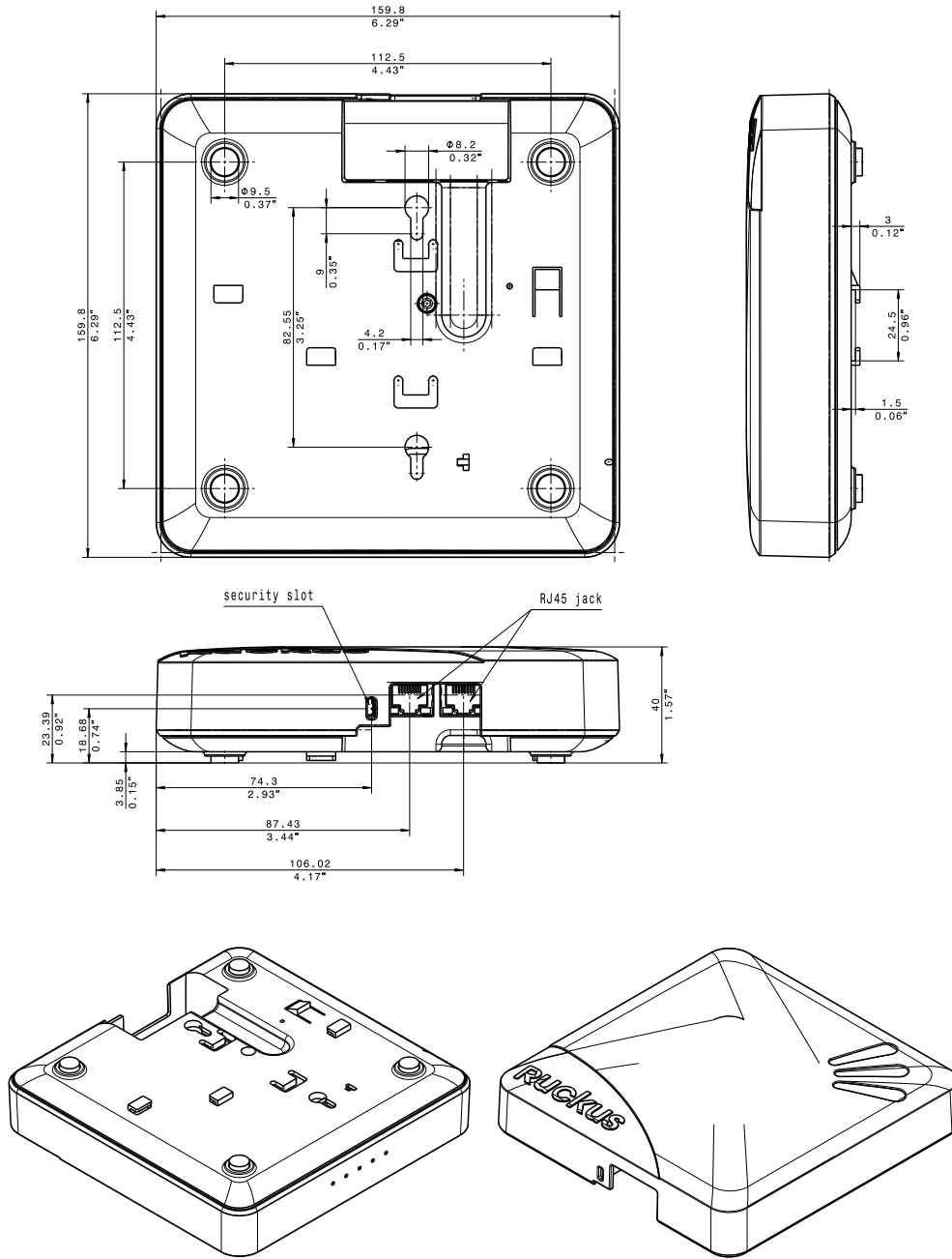
DIMENSIONS

ConnectStation CS1-M



DIMENSIONS

Ruckus ZoneFlex 7372 Access Point



PRODUCT VARIANTS

MobileConnect + WIFI EU – Art. No. 506733

MobileConnect + WIFI UK – Art. No. 506734

MobileConnect + WIFI US – Art. No. 506735

MobileConnect EU – Art. No. 506888

MobileConnect UK – Art. No. 506889

MobileConnect US – Art. No. 506890