DCNM-WAP Wireless access point

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BOSCH
Invented for life

▶ Stand alone usage, no central control unit needed

▶ Based on standard WiFi according IEEE 802.11n

▶ WPA2 encryption for secure communication

▶ Seamless frequency switching in the 2.4 GHz and 5 GHz band

▶ Powering via power supply adapter, Power over Ethernet (POE) or DICENTIS multimedia System Network Cable

The Wireless Access Point (DCNM-WAP) is the central device of the DICENTIS Wireless Conference System. It links the Wireless Devices (DCNM-WD and DCNM-WDE) by means of secure wireless WPA2 communication. The compact DCNM-WAP with built-in web browser interface is all that is needed to set up, configure and control the DICENTIS Wireless Conference System.

The Wireless Access Point can be placed unobtrusively on a wall, ceiling or tripod floor stand by using the included universal mounting bracket.

Functions

Easy to use

- Truly wireless, no need for an additional WiFi router for tablet control.
- Easy and intuitive web browser interface for system setup, configuration, control and licensing.
- Native support for camera control.
- Range test function to guarantee that all Wireless Devices are in range, independent of the selected WiFi frequency.
- Remote interfacing using API to control microphones and third-party camera systems.

Zero Interference

- Seamless automatic wireless frequency channel switching.
- Operates in the (license-free) bands:

  – 2.4 GHz.
  – 5 GHz (UNII-1, UNII-2, UNII-2 extended, and UNII-3).
- Packet Loss Concealment to mask the effects of lost or discarded packets.

Standard WiFi

- Visibility in the IT infrastructure.
- Co-existence with other WiFi networks.

General

- Powering via either: Power supply adapter, Power over Ethernet (PoE) or DCN multimedia System Network Cable.
- Typical wireless coverage area range of 30 m x 30 m.
- Functionality is modular expandable via licensing.

Web interface

- The DCNM-WAP supports the following software functions which are available via the web browser interface (some functions are not supported when a tablet device is used).

System cameras

- For giving a clear visual overview of the proceedings.
- Native support for a maximum of six HD Conference Domes with SDI connection can be connected to the system.

Standard configuration

- User management, which gives the possibility to create several users with user specific access to functionality.

- Line input/output and routing settings.
- 5-band parametric equalizer.
- Wireless network SSID and WPA2 settings.
- Wired network host-name setting (DHCP and zero-config protocol based on Bonjour, fixed IP address is supported).
- Upload of custom logo, which is shown in DCNM-WDE Wireless Device Extended.
- GUI language setting.
- Factory default.
- Device subscription using standard WPS protocol.
- Date and time settings. Automatic date and time synchronization through NTP server from the Internet or supplied by the local DHCP server.
- Firmware upgrade of all devices and the DCNM-WAP using the wireless network (not supported when using the web interface on a tablet).
- Logging with export functionality (export is not supported when using the web interface on a tablet).
- Standby mode provided in the web browser interface. The standby mode can be used during a meeting break. When selected, the WAP is set to standby and all Discussion Devices are switched off.
- Configuration of a redundant DCNM-WAP by means of configuring a primary and secondary DCNM-WAP in the web browser interface.
- License activation (not supported when using the web interface on a tablet).

Configuration with licenses
- Camera control and HD-SDI switcher configuration.
  - Camera preposition assignment to seats (requires one DCNM-LCC per DCNM-WAP).
- Dual-use setting (requires DCNM-LSDU per DCNM-WD/DCNM-WDE).
- Identification by use of NFC tag and seat naming, including priority setting for the chairperson.
- If the Wireless Devices is in dual-use, a license is required for each participant.
- Voting at seat (requires DCNM-LSVT per DCNM-WD/DCNM-WDE). If the Wireless Devices is in dual-use, a license is required for each participant.

Preparation
- Discussion mode settings, open, override, voice and Push-To-Talk.
- Maximum of 25 open microphones.
- Participant names.
- Participant identification by use of NFC tags (requires DCNM-LSID per seat).
- Identification on assigned seat or at any seat.
- Range test to guaranty device coverage in case of channel switching.
- A maximum of up to 25 Wireless Devices can have priority (requires DCNM-LSID per DCNM-WD/DCNM-WDE).

Management and monitoring
- Add/remove participant/seat to the waiting and/or speaking list.
- Shift from waiting list to speaker list.
- Monitor of battery life time and signal strength per seat.
- Power off all Wireless Devices.

- Voting control with subject, answer set, and results presentation.

Web interface general
- System information.
- Supports multiple languages.

Controls and Indicators
- 2x 3 LEDs on the front side showing the status of the Wireless Access Point / system.
- Equalizer control.
- Third-party control, API and voting.

Interconnections
- 1x Ethernet/PoE/DCN multimedia socket.
- 1x DC power supply adapter input socket.
- 2x 6.3 mm jack sockets for audio line input and audio line output external system connections.

External system connections
Additional facilities are provided for the connection of external system equipment. These facilities comprise:
- An application programming web interface for control of external equipment such as video cameras (via a SDI control matrix), video displays.
- One audio line (balanced) output for connection to a sound reinforcement system, audio mixers or to a voice logging system for audio registration of all spoken conference proceedings.
- One audio line (balanced) input to allow connection of audio sources.
- Use of a telephone coupler for connection to a remote participant or conference system.
- Insertion of an external sound processing device, such as an additional graphic equalizer in the audio path of the wireless device loudspeakers.

Certifications and approvals

EU	CE, WEEE
US	UL, FCC
CA	CSA, EPS, ISED
KR	KC
AU/NZ	RCM, MEPS, (NZ: GURL)
RU/KZ/BY	EAC
JP	PSE, MIC
CN	China RoHS, CCC, CMIIT
SA	SASO, CITC
BR	ANATEL

Region	Regulatory compliance/quality marks	
Europe	CE	DECL EC DCNM-WAP
Turkey	TSE	DCNM-WDE-WD-WAP

Installation/configuration notes

DCNM-WAP mounted on a LBC 1259/01 tripod floor stand

Parts included

Quantity	Component
1	DCNM-WAP Wireless Access Point
1	AC/DC power supply adapter. Including: AC plug-AU, AC plug-UK, AC plug-EU, AC plug-US, GE24I48-R7B
1	Mounting bracket
1	DVD with manuals and software
1	Safety instructions

Technical specifications

Electrical

Supply voltage (PSU)	100-240 Vac 50-60 Hz in 48 Vdc out
PoE	802.3af, 802.3at - type 1 mode A (endspan), mode B (midspan)
DCNM system supply	48 Vdc
Power consumption	10 W
Frequency response	80 Hz - 20 kHz
THD at nominal level	<0.1 %
Dynamic range	>98 dBA
Signal-to-noise ratio	>96 dBA
Ethernet	1000Base-T IEEE 802.3ab

Audio inputs

Jack nominal	-18 dBV
Jack maximum	+18 dBV

Audio outputs

Jack nominal	-18 dBV
Jack maximum	+20 dBV

Radio

WIFI standard	IEEE 802.11n
Frequency Range	2.4 GHz and 5 GHz (ISM license free)

Mechanical

Mounting	Ceiling, Wall or Tripod floor stand (using included bracket)
Dimensions (H x W x D) with bracket	285 x 202 x 65 mm (11.2 x 8.0 x 2.6 in)
Weight: with bracket without bracket	958 g (2.11 lb) 725 g (1.60 lb)
Color	Light grey (RAL 000 7500)

Environmental

Operating temperature	5 ºC to +45 ºC (41 ºF to +113 ºF)
Storage and transport temperature	-20 ºC to +70 ºC (-4 ºF to +158 ºF)
Relative humidity	< 95 %, > 5 %

Ordering information

DCNM-WAP Wireless access point
Wireless Access Point, light grey color. Power supply adapter and universal mounting bracket included.
Order number **DCNM-WAP**

Accessories
LBC1259/01 Universal floorstand
Universal floor stand lightweight aluminum construction, foldable, M10 x 12 reducer flange.
Order number **LBC1259/01**

Software Options
DCNM-LCC Camera control license
DICENTIS Camera Control enables the use of Bosch Onvif compliant cameras in the DICENTIS Conference System and DICENTIS Wireless System. DCNM systems require system license DCNM LSYS.
Order number **DCNM-LCC**