

# Unite TH

Handheld transmitter



## APPLICATIONS

The Unite TH handheld transmitter is a microphone from the digital, wireless Unite communication system and has been optimised for the best possible intelligibility. Thanks to its integrated digital signal processor (DSP), it is possible to both automatically adjust the microphone amplification and block out background noise. Furthermore, the device has a menu with numerous setting options. The handheld transmitter can be configured either via this menu or via a Unite Cockpit charger and the free Unite Manager PC software. Depending upon the operating mode, the microphone can be used as a master for transmitting, as a sub-master with an exclusive wireless connection to a master device, or as a wireless microphone in combination with the Unite AP4 Access Point.

Its versatility makes the Unite TH handheld transmitter the perfect tool for guided tours, presentations, conferences and interpreting.

## VERSIONS

Unite TH (EU)	DECT band Europe (1,880 - 1,900 MHz) . . . . .	Order # 710.458
Unite TH (NA)	DECT band North America (1,920 - 1,930 MHz) . . . . .	Order # 739.367
Unite TH (JP)	DECT band Japan (1,893 bis 1,906 MHz) . . . . .	Order # 739.375

## FEATURES

- Noise-compensated wireless microphone with low-feedback cardioid polar pattern, flexibly mounted microphone capsule and microphone grille made from metal with integrated pop shield
- Two integrated antennas for maximum transmission strength, depending upon the hand position
- Integrated digital signal processor (DSP) for real-time optimisation of speech intelligibility and reduction of background noise.
- Maximum protection against unauthorised listening thanks to customisable AES-256 bit encryption of wireless communications
- DECT radio technology for operation free of registration and costs, including automatic frequency management
- High operating range of up to 300 m (open air)
- Bluetooth® audio interface for use with a smartphone, PC/Mac or headphones
- USB-C connector – audio interface and for charging
- Controls:
  - Programmable mute button with backlit LED status display (optional push-to-mute setting)
  - On/off and menu buttons
  - Multifunction button for channel selection and menu navigation
- OLED display of channel name, battery status and menu
- Integrated lithium-ion battery (replaceable)  
Up to 18 hours operating time (dependent upon operating mode and system configuration)

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## TECHNICAL SPECIFICATIONS

### DECT radio frequency range

- EU (Europa)..... 1,880 to 1,900 MHz
- NA (Nord Amerika)..... 1,920 to 1,930 MHz
- JP (Japan)..... 1,893 to 1,906 MHz

**Microphone amplification**..... 0 to 33 dB in 3 dB increments

### Microphone capsule

- Transducer type..... Electret condenser (back electret)
- Operating principle..... Pressure gradient transducer
- Polar pattern..... Cardioid
- Max. sound pressure level..... 120 dB SPL (at 1 kHz)

### Audio bandwidth

- High definition (HD)..... 50 Hz - 14 kHz (-3 dB)
- Standard definition (SD)..... 50 Hz - 7 kHz (-3 dB)

### DECT transmission power

- up to 250 mW (peak); dependent upon the version; three settings
- EU region..... Standard: ~24 dBm / Mid: ~ 9 dBm / Low: ~ 2 dBm
- NA region..... Standard: max. 20,6 dBm / Mid: ~ 9 dBm / Low: ~ 2 dBm
- JP region..... Standard: max. 20,6 dBm / Mid: ~ 9 dBm / Low: ~ 2 dBm

### Operating range

up to 300 m with unobstructed line of sight in the open; the actual operating range depends upon the RF output settings, the surroundings, the signal absorption, signal reflection and signal interference

### DSP functions

- Automatic level control (ALC)
- Noise gate
- Noise canceller
- Compressor
- Equalizer
- Low-cut filter
- Ducker

Encryption..... AES-256 encryption, customisable

Display..... High contrast, monochrome OLED display

Bluetooth®..... V4.2 (HFP – Hands-Free-Profile, A2DP – audio streaming)

USB-C connector..... Only for USB power adapters that comply with the USB 2.0/3.0 standard with an output voltage of 5 V

Battery..... Lithium-ion battery, can be replaced by service personnel

### Battery life\*

- 17 h (default setting: master; max. transmission power)
  - 13 h (master in constant operation with an additional sub-master device)
  - 10 h (master in constant operation with two additional sub-master devices)
  - 25 h (sub-master used with AP4)
- \* Specifications apply to a new battery. Battery life varies depending upon its condition.

### Charging time\*

- using a Unite charger..... 4,5 hours
  - via USB (device switched off).... 12 hours
- \* Specifications apply to a new battery. Battery life varies depending upon its condition.

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## TECHNICAL SPECIFICATIONS

### Operating mode / configuration

- Master (transmitting and receiving)
- Sub-master (for a bi-directional connection with another master)
- Sub-master AP4 for use as a wireless microphone with a Unite AP4 Access Point

### Simultaneously active microphones broadcasting (master: Unite: TP/TH)

Up to three open microphones in the following combinations:

- 1x "master" + 2x "sub-master"
- 1x "master" + 2x RP-T (talkback)
- 1x "master" + 1x "sub-master" + 1x RP-T (talkback)

### Dimensions

- Length including microphone capsule . . . 258 mm
- Shaft diameter . . . . . 34 mm
- Capsule diameter . . . . . 48 mm

Weight (with battery). . . . . 225 g

### Ambient temperature range

- In operation. . . . . -10 to +40 °C
- In storage. . . . . -20 to +45 °C
- Charging via USB. . . . . 0 to +35 °C
- Charging in the charger\*. . . . . 0 to +35 °C
- Relative humidity. . . . . 0 to 90%

\* Quickest possible charging time (4.5 h) up to 28 °C

### Materials

- Housing . . . . . Plastic (PC-ABS, painted)
- Microphone grille. . . . . Hardened steel (painted)

### Latency

- Master (broadcast). . . . . HD: 22 ms / SD: 18 ms
- Sub-master (to the master). . . . . HD: 17.5 ms / SD: 13.5 ms

## ACCESSORIES INCLUDED IN DELIVERY

- Quick Start Guide
- Coloured rings (1 x black, 1 x orange)
- Storage bag
- MA-CL 36 microphone clamp

## OPTIONAL ACCESSORIES

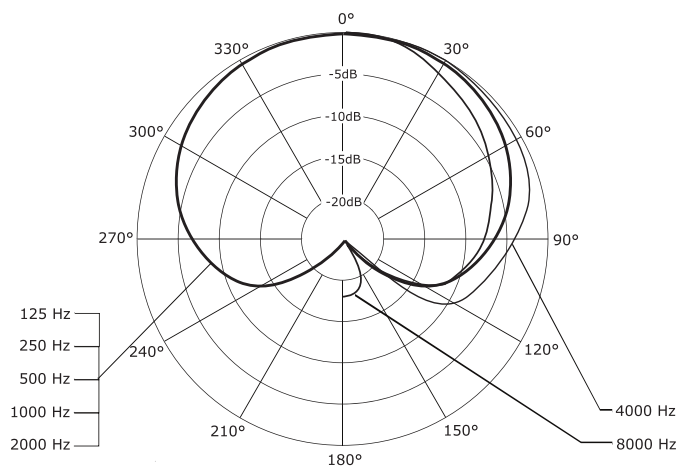
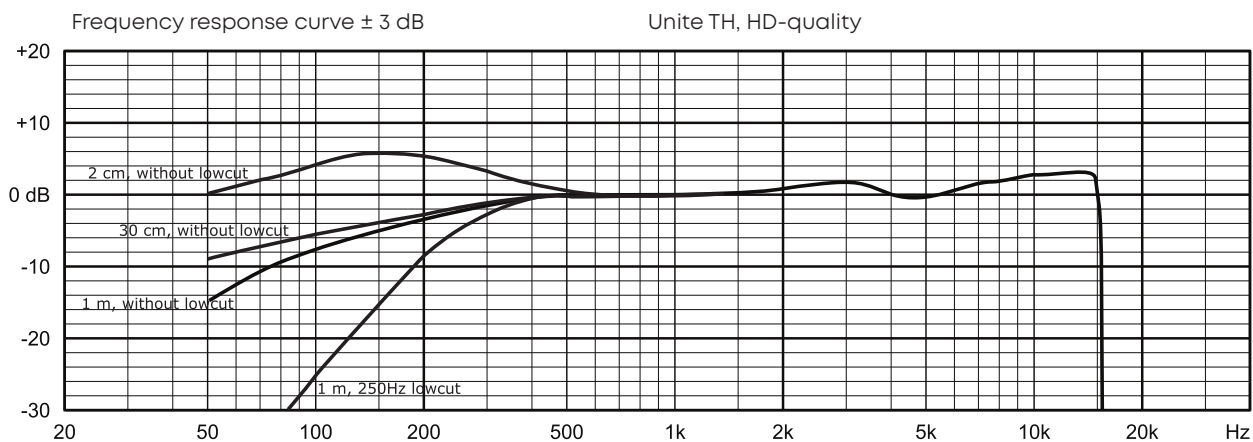
- Unite CC-28/2 Cockpit Charging Case . . . . . Order # 718.610
  - Unite CC-36/2 Cockpit Charging-Case . . . . . Order # 718.343
  - Unite DS-4/2 Basic Desktop Charger . . . . . Order # 717.916
  - Unite CDS-4/2 single Cockpit Desktop Charger. . . . . Order # 713.198
  - Unite CDD-8/4 double Cockpit Desktop Charger. . . . . Order # 708.488
  - Unite 4P2H retrofitting set . . . . . Order # 718.483
  - Unite BA PSU 5/2 USB power adapter\*. . . . . Order # 728.373
- \* (expected to be available from 10/2020)

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## FREQUENCY RESPONSE & POLAR PATTREN

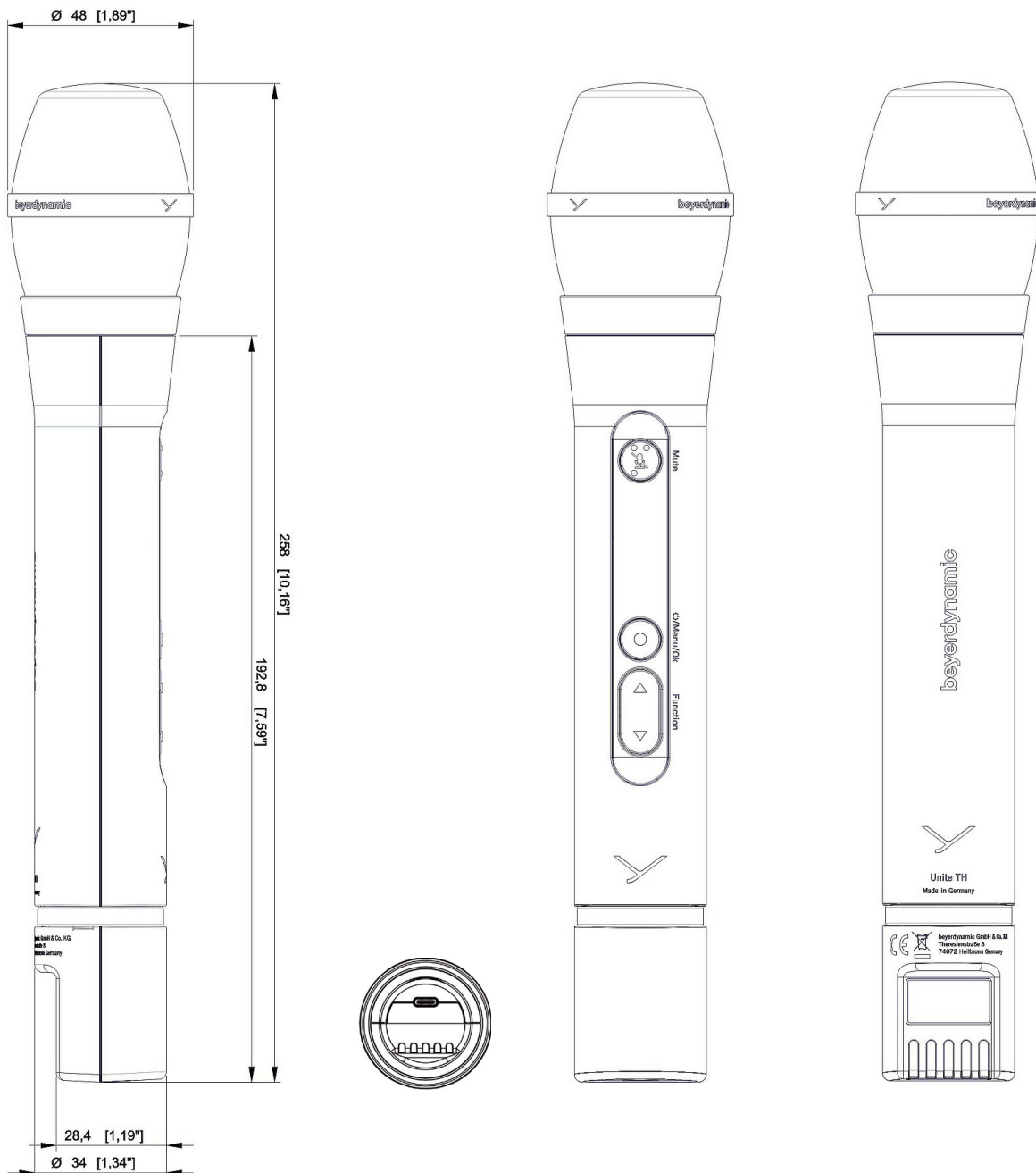
This polar pattern and frequency response curve ( $\pm 3$  dB) correspond to a typical production sample for this microphone.



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## DIMENSIONS



All dimensions in mm and [inches].

5 of 5

beyerdynamic GmbH & Co. KG  
Theresienstr. 8 · 74072 Heilbronn – Germany  
Tel. +49 (0) 71 31 / 617 - 300 · info@beyerdynamic.de · www.beyerdynamic.com

For further distributors worldwide, please go to [www.beyerdynamic.com](http://www.beyerdynamic.com)  
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