



HHP III.1 mounted to artificial head HMS II.3 for voice quality test of 4G smartphone

## DESCRIPTION

Thanks to the adjustability in all three axes the HHP III.1 allows to position the handset easily and reproducibly according to any measurement requirements. Current pressure force is shown continuously on a display.

Spatial positioning of the handset is predetermined by a single component which can be replaced if required. The mechanism is calibratable.

HHP III.1 allows a handset width of up to 93 mm. Larger objects can be tested with the optionally available clamping device CDM-W (Code 1408).

Owners of the previous model HHP III can replace the old clamping device with the new VariMount clamping device (CDM-R, Code 1407). In this case, it is recommended to also order the new carrying case HCC-HHP III.1. Thus, existing customers can upgrade their HHP III to HHP III.1 so they can benefit from the lightweight construction and the variability of handset mounting.

## APPLICATIONS

- Measurement of the transfer characteristics of telephone handsets as a function of application force and of position

## FEATURES

- Positioning conforming to standards ITU-T P.64 and IEEE 269
- Support of all pinna types according to ITU-T P.57 and P.64
- Reproducible measurement results
- Realistic measurement with reproducible acoustic leak between handset and ear
- Calibratable mechanism
- Robust and yet particularly lightweight metal construction
- Good fixation and range of width of handsets
- De-mountable clamping jaws for minimizing sound field influences
- Adjustable stop bolt at positioning jig allows faster ear cap positioning of handsets
- Exact and reproducible adjustment
- Gauge with display unit allows precise adjustment and control of application force
- Easy handling

## DATA SHEET

### HHP III.1 (Code 1403)

#### HEAD Handset Positioner

#### Overview

As an optional accessory of the Artificial Head Measurement System HMS II.3, HHP III.1 allows reproducible measurements of the transfer characteristics of handsets as a function of application force according to ITU-T Recommendation P.64.

Both "standard test positions" (STP) according to ITU-T P.64 for the pinna types 3.3 and 3.4 are supported. Moreover, HHP III.1 fulfills the requirements regarding the "recommended test position" (RTP) specified by IEEE 269 as well as ITU-T Recommendation P.64. Thus e.g. measurements according to ANSI TIA/EIA-810B and TIA/EIA-920 can be carried out using the RTP position.

## STANDARD DELIVERY ITEMS

- **HHP III.1 (Code 1403):**  
HEAD Handset Positioner
- **HCC-HHP III.1 (Code 1634.1):**  
Carrying Case for HHP III.1
- **Accessory parts:**
  - Clamping device CDM-R (Code 1407) with 2 additional fixation screws and 2 rubber bands
  - ERP centering pin and verification disc
  - Ym adjusting mechanism with force measuring device
  - Xe-Ye-Ze 3D mechanism incl. fixation screw
  - Application force display incl. mains cable
- Only included in delivery when ordering HMS simultaneously:*
  - MRP fixation mechanism incl. mounting screw, 1/2" clip-on adapter, lip ring and MRP pointer
  - Calibration adapter for ear simulator
  - Special screw driver
  - Special tool

- **Manual**



Regular clamping device CDM-R with smartphone clamped in and clamping jaws demounted



Optionally available wide clamping device CDM-W

## ACCESSORIES

- **CDM-R (Code 1407):**  
Regular VariMount/MotoMount clamping device, complete.  
Dimensions and weight of test object:  
Length:  $\geq 50$  mm, Width: 30-93 mm,  
Height: 0-45 mm, Weight:  $\leq 600$  g
- **CDM-W (Code 1408):**  
Wide VariMount/MotoMount clamping device, complete.  
Dimensions and weight of test object:  
Length:  $\geq 50$  mm, Width: 81-200 mm,  
Height: 0-45 mm, Weight:  $\leq 600$  g
- **HCC-HHP III.1 (Code 1634.1):**  
Carrying case for HHP III.1
- **Various spare parts:**  
Cf. separate datasheet

## OPTIONS

- Various upgrade kits (UG-HHP) for previous HHP versions, cf. datasheet D1355-1401 (also required: CDM-R, Code 1407)

### Technical Data HHP III.1

#### (with regular VariMount clamping device CDM-R)

The following angles are valid relative to the corresponding STP of the 3.3 and 3.4 type ear:

Ye:	$\pm 5$ degrees, reproducibility and reading accuracy 0.5 degrees
Ze:	$\pm 10$ degrees, reproducibility and reading accuracy 0.5 degrees
Xe:	+25 to -20 degrees, reproducibility and reading accuracy 1 degree
Translatory accuracy:	0.5 mm reading accuracy
Force range:	0 N - 20 N
Resolution:	0,1 N
Weight of test object:	$\leq 600$ g
Dimensions of test object:	length $\geq 50$ mm, width 30-93 mm, height $\leq 45$ mm
Weight (incl. case):	approx. 8.3 kg

represented by