



ANTENNA MEASUREMENT REPORT

8000-6210932-211202-01

Characterisation of a
SONNET 3 / SONNET 3 EAS (OPUS 4+ +), Me171x / Me172x

Ordered by
MED-EL Elektromedizinische Geräte GmbH
Fuerstenweg 77a
A-6020 Innsbruck
AUSTRIA

Perfomed at
IMST GmbH
Test Centre Antennas
Carl-Friedrich-Gauss-Str. 2-4
D-47475Kamp-Lintfort
GERMANY



4 GENERAL INFORMATION

Customer : MED-EL Elektromedizinische Geräte GmbH
Mr. Reinhard Koeppner
Fuerstenweg 77a
A-6020 Innsbruck
Austria

Devices under test (DUT): One HDO processors type:

SONNET 3 / SONNET 3 EAS (OPUS 4++), Me171x / Me172x,
in following named as "Sonnet 3 No.: 15" or DUT.

Subject: Determination of the EIRP, the 3D radiation pattern, the TRP and the efficiency in free space environment, on both sides of a phantom head and on a silicone cube.

Date of measurement: 29. December 2021

Performed: Stefan Weitz

Quotation-No.: 5210590-A

Order-No.: N.A., signed quotation.

Project-No.: 8000_6210932

Department: Antennas & EM Modelling

Responsible: Martin Böttcher
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Performed: *Stefan Weitz* Reviewed: *M. Böttcher*

Stefan Weitz
Test engineer

Martin Boettcher
Quality assurance engineer

9 RESULTS

9.1 TRP and Efficiency

The following table shows the TRP and efficiency values of the DUT for the different measurement environments. The value of the feeding power (P_{feed} [dBm]) of the antenna of the DUT has been provided by MED-EL. With the feeding power value and the TRP values it was possible to calculate the efficiency of the antenna of the DUT.

SONNET 3 / SONNET 3 EAS (OPUS 4+ +), Me171x / Me172x @ 2440 MHz			
Environment	P_{feed} [dBm]	TRP [dBm]	Efficiency [%]
Free space	-1.0	-12.3	7.4
Head left	-1.0	-13.0	6.3
Head right	-1.0	-14.5	4.5
Silicone cube R	-1.0	-13.4	5.8

Table 9-1: Feeding power, TRP and efficiency values of SONNET 3 No.:15.

9.2 Pattern diagrams Sonnet 3, No.: 15

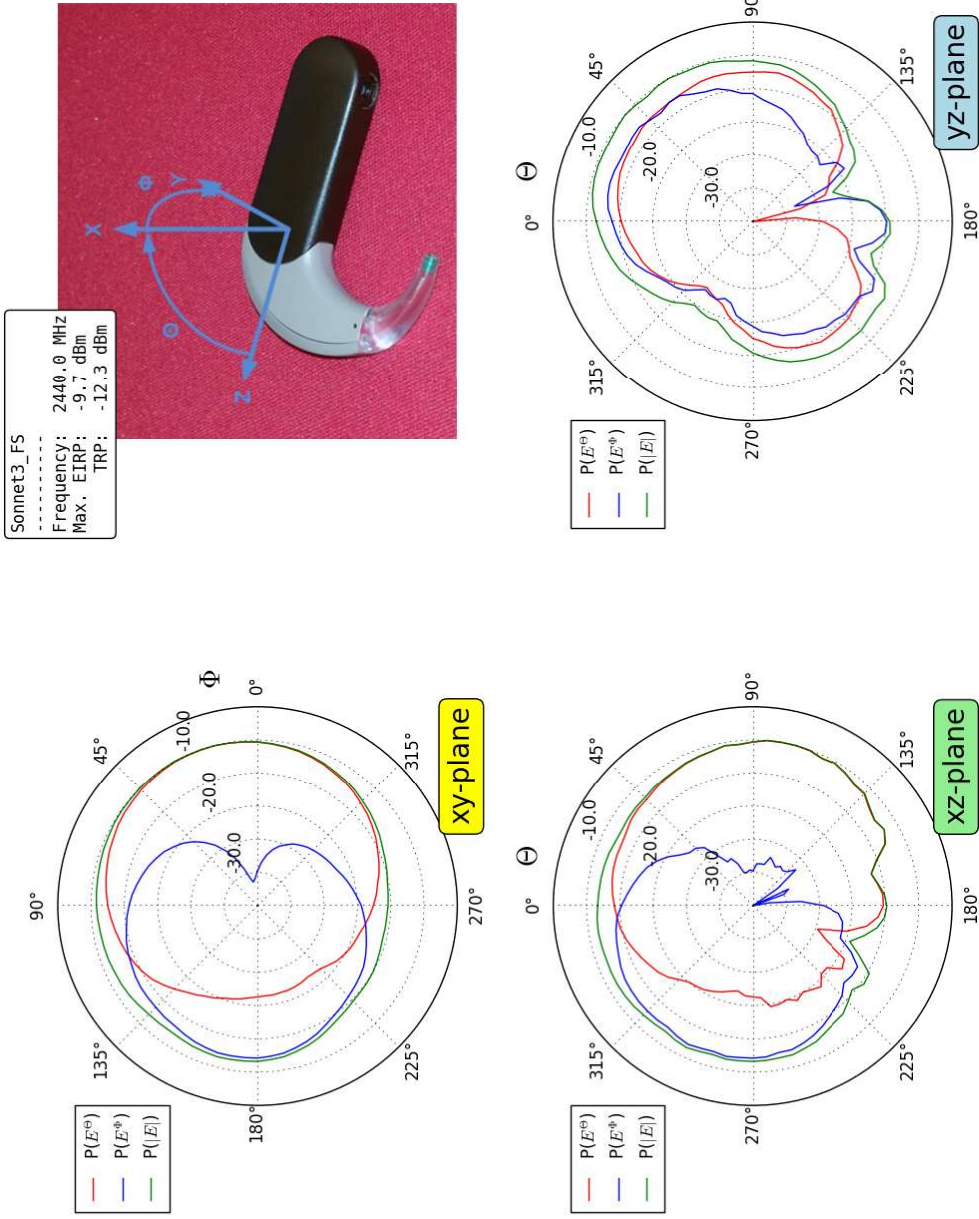


Figure 9-1 : E-Theta/E-Phi/Sum Polar Diagram, Free Space, Sonnet 3, No.: 15, 2440 MHz.