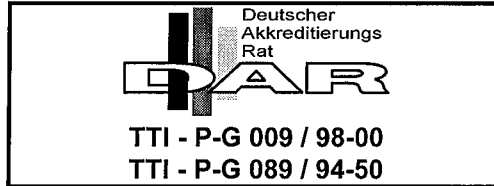


FCC ID: E9MHT4000



AMENDMENT TO EMISSION -- TESTREPORT

T22891-00-05KJ

Model : Wireless Microphone / Handheld Transmitter

Type : HT4000

Applicant : AKG Acoustics, U.S.

Manufacturer : AKG Acoustics GmbH, Austria

Licence holder : AKG Acoustics, U.S.

Address : 914 Airpark Center Dr.
Nashville, TN 37217, U.S.A.

Test result accrdg.
to the regulation(s)
at page 3

:

POSITIVE

This testreport with appendix consists of 5 pages.
The testresult only responds to the tested sample. It is not allowed to copy
this report even partly without the allowance of the testlaboratory.

Description:

The results of the power measurements described in Report T22891-00-05KJ were unfortunately calculated with a wrong antenna gain (numeric factor 1.6). This wrong factor was given from the manufacturer.

In this amendment you will find now the correct power calculations accdg. to the following formula:

"LISTING OF OUTPUT POWER ON GRANTS OF CERTIFICATION

Output power is listed in the line item as conducted, EIRP or ERP in accordance with the Rules part under which the device operates. The line item is the middle portion of the grant where grant notes, rule parts, frequency range, frequency tolerance and emission designators are listed. If conducted power cannot or is not measured, it must be calculated from the radiated emission measurements of the fundamental frequency using the formula $E = (\sqrt{30PG})/d$.

where E is the maximum fundamental field strength in V/m,
G is the numeric gain of the transmitting antenna with reference to an isotropic radiator,
d is the distance in meters at which the field strength is measured, and
P is the power in Watts.

Solving for P yields, $P = (Ed)^2/(30G)$."

New measurements are not necessary because the testsetup and the results of the report T22891-00-05KJ are correct.

T E S T R E S U L T

Sample II – 680MHz

Conducted Measurement at temporarily antenna port :

Nominal Voltage $U_B = 3.2V$

Variant	Frequency in MHz	Level measured with Powermeter in dBm
II	680,000	16,17

Equivalent Radiated Power Measurement:

Nominal Voltage $U_B = 3.2V$

Frequency [MHz]	Reading Vert. [dBμV]	Reading Hor. [dBμV]	Correct. Vert. [dB]	Correct. Hor. [dB]	Power Vert. [dBm]	Power Hor. [dBm]
680,00	82,7	76,1	-69,2	-66,0	13,5	10,1

Field Strenght at 3m:

Nominal Voltage $U_B = 3.2V$

EuT: HT4000 Band II working on 680 MHz:

Frequency [MHz]	Reading Vert. [dBμV]	Reading Hor. [dBμV]	Correct. Vert. [dB]	Correct. Hor. [dB]	Level Vert. [dBμV/m]	Level Hor. [dBμV/m]	Limit [dBμV/m]	Dlimit [dB]
680,00	79,0	69,6	29,8	29,8	108,8	99,4	121,4	-12,6

Calculation of antenna gain

$$13.5 \text{ dBm} - 16.17\text{dBm} = - 2.67 \text{ dB}$$

$$(- 2.67 \text{ dB} / 10) = - 0.267$$

$$\text{Invlog} (-0.267) = 0.54 = \rightarrow \text{numeric gain}$$

Calculation of Power accdg. to Carson Formula

Band I (650.1 MHz)

$$P = (Ed)^2 / (30G)$$

$$E = 109,6 \text{ dB}\mu\text{V/m} = 301.9 \text{ mV/m} = 0.3019 \text{ V/m}$$

$$D = 3\text{m}$$

$$G = 0.54$$

$$P = 0.0507 \text{ W} = 50.60 \text{ mW}$$

Band II (680 MHz)

$$P = (Ed)^2 / (30G)$$

$$E = 108.8 \text{ dB}\mu\text{V/m} = 275.42 \text{ mV/m} = 0.27542 \text{ V/m}$$

$$D = 3\text{m}$$

$$G = 0.54$$

$$P = 0.04214 \text{ W} = 42.14 \text{ mW}$$

Band III (750 MHz)

$$P = (Ed)^2 / (30G)$$

$$E = 109,8 \text{ dB}\mu\text{V/m} = 309.03 \text{ mV/m} = 0.30903 \text{ V/m}$$

$$D = 3\text{m}$$

$$G = 0.54$$

$$P = 0.05305 \text{ W} = 53.05 \text{ mW}$$

Band IV (760 MHz)

$$P = (Ed)^2 / (30G)$$

$$E = 109,7 \text{ dB}\mu\text{V/m} = 305.49 \text{ mV/m} = 0.30549\text{V/m}$$

$$D = 3\text{m}$$

$$G = 0.54$$

$$P = 0.05184 \text{ W} = 51.84 \text{ mW}$$

Band V (805 MHz)

$$P = (Ed)^2 / (30G)$$

$$E = 106,7 \text{ dB}\mu\text{V/m} = 216.27 \text{ mV/m} = 0.21627 \text{ V/m}$$

$$D = 3\text{m}$$

$$G = 0.54$$

$$P = 0.02598 \text{ W} = 25.98 \text{ mW}$$

Band VI (865 MHz)

$$P = (Ed)^2 / (30G)$$

$$E = 108,2 \text{ dB}\mu\text{V/m} = 257.03\text{mV/m} = 0.25703 \text{ V/m}$$

$$D = 3\text{m}$$

$$G = 0.54$$

$$P = 0.03670 \text{ W} = 36.70 \text{ mW}$$

SUMMARY

GENERAL REMARKS:

This amendment belongs to Test Report T22891-00-05KJ / March 20.

FINAL JUDGEMENT:

The requirements according to the technical regulations and tested operation modes are

- - met.
- - not met.

The equipment under test

- - **Fulfills** the general approval requirements cited on page 3.
- - **Does not** fulfill the general approval requirements cited on page 3.

Date of receipt of test sample : accdg. to storage record

Testing Start Date : June 06, 2003

Testing End Date : June 06, 2003

Checked by:

i. A. 
Günter Mikes
Dipl.Ing.(FH)

Tested by:


Josef Knab