

June 12, 2008

Supplement to HAC Test Report for Motorola portable cellular phone (IHDT56JR1)

Prepared by:
Katya Royzen

There was a request for additional information regarding Motorola's HAC Test Reports for Motorola portable cellular phone (FCC ID IHDT56JR1). The requested information is addressed below in the same numbering sequence received.

11)

T-coil Report indicates T Rating system of 2006, but the report states 2007. Please reconcile. With T Rating system of 2007, the final T rating is independent of the M Rating level.

RESPONSE:

Under 2007 standard, the “Device M-rating” does not limit the “Device T-rating”. However, our understanding is that we still have to consider RF environment at the location the T-coil measurements. Here are some sections of the standard which indicate this to us.

In section 6.3 of ANSI C63.19-2007 (page 44): “In addition, the RF field strength at each measurement location must be at or below that required for the assigned category”.

In section 4.4.1.2.2 of ANSI C63.19-2007 step 12 (page 28), “For the T-coil mode M-rating assessment, determine if the chosen axial measurement point is contained in an included sub-grid of the first scan, for both E- and H-fields. If so, then a second scan is not necessary. The first scan and resultant category rating may be used for the T-Coil mode M rating”.

Also, in section 7.2 of ANSI C63.19-2007, in tables 7-4 and 7-5, both M and T categories are assigned to RF Field Emissions. This indicates that RF Field Emissions has an assigned category with respect to T-rating.

Therefore, even though the overall “Device M-rating” does not limit the “Device T-rating”, the RF environment at the locations of the T-coil measurement points can limit the “Device T-rating”.

12)

According to Table 6 in Exhibit 6B-2, some data was captured with Ambient Noise greater than that of the measured noise of the DUT. According to C63.19-2007 Section 6.2.1, the ambient noise must be 10 dB lower than that of the lowest measurement signal for the standard (which is $-18 - 30 - 10 = -58$ dBA/m). Please address.

Further explanation: The ambient noise was reading higher than the actual EUT ABM2. The C63.19-2007 requirement is that the ambient noise is 10 dB lower than the lowest measurement-- which is -58 dBA/m. The engineer may need to check/change the test environment (i.e. maybe test in a shielded room), because the environment according to the report has a strong influence on the SNR data, which shouldn't be the case.

RESPONSE:

Our ABM1 measurement for this point is 5.74466 dB A/m at that point.

The calculation is $5.74466 \text{ dB A/m} - 30 \text{ dB} - 10 \text{ dB} = -34.25534 \text{ dB A/m}$. Therefore, in order to have a valid T4 measurement, our Ambient Noise measurement needs to be below -34.25534 dB A/m for this phone.

Our Ambient Noise is -51.9923 dB A/m.

Therefore, we meet this requirement.