

Interpretation Request

Clarification regarding the following inconsistencies which have been identified within the ANSI C63.19 (2007) standard.

I. Separation distance from probe to wireless device reference plane.

i. Evidence for 15mm separation distance from center of probe sensors to WD reference plane

1. Figures A.3 & A.4 show distance of **15mm** from EUT.
2. Section 4.4 Near-field test procedure states in multiple paragraphs that the measurement plane is to be located **15mm** from the wireless device reference plane.
3. Appendix A.2.1 Gauge blocks for setting measurement distance to probe, Figure A.3 shows **15mm** from “***center point of the probe elements***”.
4. Appendix A.2.1 Gauge blocks for setting measurement distance to probe, Figure A.4 shows **15mm** from “***center point of the probe elements***”.

ii. Evidence for 10mm separation distance from nearest point on probe element to WD reference plane

1. Appendix A.2 WD RF emission measurements reference and plane, 4th Bullet: “*The measurement plane is parallel to, and 10.0mm in front of, the reference plane.*”
2. Section 4.2.2 Near-field measurement system, 5th paragraph: “*...the required 10mm separation distance from the nearest point on the probe element(s) to the reference plane for the WD under test.*”

II. Measurement of separation distance from probe to dipole

- i. Evidence of “top surface of dipole to **nearest point on probe element**”
 1. Appendix D.5.1.4.1.1 Conditions for validation, 3rd Bullet: “*Separation distance from the top surface of the dipole to the **nearest point on the probe element**: $d=10\text{mm}$.*”
 2. Appendix D.5.1.4.1.2 Conclusion, “*Note—the separation distance is measured from the top surface of the dipole to the **nearest point on the probe element**, and is $d=10\text{mm}$.*”
 3. Section 4.3.2.1.4 Procedure using planar dipoles, “*The near field measurement probe is positioned and scanned over the illuminated dipole at a distance of 10mm from the **nearest point on the probe sensor element(s)** to the top surface (edge) of the etched dipole...*”

- ii. Evidence of “top surface of dipole to **center point of probe element**”
 1. Section 4.3.2.1 Validation procedures using dipoles, 4th bullet: “*The probe-to-dipole separation, which is measured from closest surface of the dipole to the **center point of the probe sensor element...***”
 2. Section 4.3.2.1.1 Validation procedure, 3rd bullet: “*The **center point of the probe element(s)** are 10mm from the closest surface of the dipole elements*”.
 3. Section 4.3.2.1.3 Procedure using regular dipoles, “*The probe is positioned over the illuminated dipole at 10mm distance from the **center point of the probe sensor element** to the top surface (edge) of the dipole element...*”.
 4. Appendix A.2.1 Gauge blocks for setting measurement distance to probe, Figure [A.3](#) shows 10mm from “**center point of the probe elements**”.
 5. Appendix A.2.1 Gauge blocks for setting measurement distance to probe, Figure [A.4](#) shows 10mm from “**center point of the probe elements**”.

Response from Subcommittee 8

RESPONSE TO REQUEST FOR INTERPRETATION,

(Dated 10-March-08)

Regarding: ANSI C63.19 (2007)

In response to the inconsistencies that were identified within the text and appendices of ANSI C63.19 (2007), please refer to the following corrections:

ISSUE I: Separation distance from probe to wireless device reference plane.

The correct specification for all text, figures, and appendices should be “15mm separation distance from the center of the probe sensors to the WD reference plane”, or equivalent wording.

- iii. **Correctly specified 15mm separation distance from center of probe sensors to WD reference plane:**
 1. Figures A.3 & A.4 show distance of **15mm** from EUT.
 2. Section 4.4 Near-field test procedure states in multiple paragraphs that the measurement plane is to be located **15mm** from the wireless device reference plane.
 3. Appendix A.2.1 Gauge blocks for setting measurement distance to probe, Figure A.3 shows **15mm** from “*center point of the probe elements*”.
 4. Appendix A.2.1 Gauge blocks for setting measurement distance to probe, Figure A.4 shows **15mm** from “*center point of the probe elements*”.

- iv. **Disregard the following incorrect separation distances. Please follow the intent of the standard as described above.**
 1. Appendix A.2 WD RF emission measurements reference and plane, 4th Bullet: “*The measurement plane is parallel to, and 10.0mm in front of, the reference plane.*”
 2. Section 4.2.2 Near-field measurement system, 5th paragraph: “*...the required 10mm separation distance from the nearest point on the probe*

element(s) to the reference plane for the WD under test.”

ISSUE II: Measurement of separation distance from probe to validation dipole

The committee did not intend to change the separation distance between the probe and validation dipole in the ANSI C63.19(2007) version. Therefore, the ANSI C63.19(2006) guidance should still be applied.

The correct specification for all text, figures, and appendices should be “10mm separation distance from the nearest point on the probe sensors to the WD reference plane”, or equivalent wording.

(Table 4.2 Note 2 states: “[Target] values independently validated for the dipole actually used in the measurements should be used, when available”. This practice inherently requires duplication of the same separation distance utilized by the independent source.)

- i. **Correctly specified “top surface of dipole to nearest point on probe element”**
 1. Appendix D.5.1.4.1.1 Conditions for validation, 3rd Bullet: *“Separation distance from the top surface of the dipole to the **nearest point on the probe element**: $d=10\text{mm}$.”*
 2. Appendix D.5.1.4.1.2 Conclusion, *“Note—the separation distance is measured from the top surface of the dipole to the **nearest point on the probe element**, and is $d=10\text{mm}$.”*
 3. Section 4.3.2.1.4 Procedure using planar dipoles, *“The near field measurement probe is positioned and scanned over the illuminated dipole at a distance of 10mm from the **nearest point on the probe sensor element(s)** to the top surface (edge) of the etched dipole...”*
- ii. **Disregard the following incorrect separation distances. Please follow the intent of the standard as described above.**
 1. Section 4.3.2.1 Validation procedures using dipoles, 4th bullet: *“The probe-to-dipole separation, which is measured from closest surface of the dipole to the **center point of the probe sensor element...**”*
 2. Section 4.3.2.1.1 Validation procedure, 3rd bullet: *“The **center point of the probe element(s)** are*

10mm from the closest surface of the dipole elements”.

3. Section 4.3.2.1.3 Procedure using regular dipoles, *“The probe is positioned over the illuminated dipole at 10mm distance from the **center point of the probe sensor element** to the top surface (edge) of the dipole element...”*.
4. Appendix A.2.1 Gauge blocks for setting measurement distance to probe, Figure [A.3](#) shows 10mm from *“**center point of the probe elements**”*.
5. Appendix A.2.1 Gauge blocks for setting measurement distance to probe, Figure [A.4](#) shows 10mm from *“**center point of the probe elements**”*.