



Federal Communications Commission
Washington, D.C. 20554

April 28, 2009

FILED/ACCEPTED

APR 29 2009

Federal Communications Commission
Office of the Secretary

Christopher D. Imlay
General Counsel
American Radio Relay League, Inc.
Booth, Freret, Imlay & Tepper, P.C.
14356 Cape May Road
Silver Spring, MD 20904-6011

FOIA Control No. 2009-311

Dear Mr. Imlay,

This is in reply to your letter dated March 31, 2009, in which you invoke the Freedom of Information Act (FOIA) (5 U.S.C. 552). You seek "the unredacted versions of certain documents and technical studies included in the record in redacted form in ET Docket No. 04-37 by the Office of Engineering and Technology on or about December 22, 2004." (Emphasis in original.) You further identify these records as those specified for public inspection by the D.C. Circuit Court of Appeals in its decision, *American Radio Relay League, Inc. v. FCC*, 524 F.3d 227 (D.C. Cir., 2008).

Attached are the responsive documents you request. For your information, they are being submitted simultaneously into the record of the underlying proceeding, ET Docket No. 04-37. Note that certain slide numbers and dates appear to be out of sequence, due to repeat printing of files to generate unredacted versions of pages previously redacted.

The Court's decision in the above-referenced case required the Commission to provide an opportunity for public comment on the unredacted versions of the report. The Court also remanded to the Commission for further justification of the extrapolation factor used for determining compliance with the Commission's standards for BPL systems. The Commission will respond to the Court's direction separately.

You may seek review of this disposition of your request by the Commission by filing an application for review with the Office of General Counsel within 30 days of the date of this letter. See 47 C.F.R. § 0.461(j).

Sincerely,

Julius P. Knapp
Chief,
Office of Engineering & Technology

Enclosures

No. of Copies rec'd _____
List ABCDE _____

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URGENT

Freedom of Information Act Request

Priority processing required under the provisions of the
Freedom of Information Act
Records not routinely available

2009-311

FOIA Control Number

DET

Bureau Office Assigned (Primary B/O)

04/28/09

Date Time Limits Expires

Coordinating Bureaus/Offices:

1. _____ 2. _____ 4. _____ 5. _____

Coordinating B/Os must forward all applicable responsive materials or report negative finding to primary B/O.

Contact Person:

Telephone #:

Coordinating B/O Due Date to
Primary B/O:

Name of Requester: **CHRISTOPHER D. IMLAY**

Classification of Requester:

All Others

Commercial

News Media / Educational
and Non-commercial Scientific

Yes No

Fee waiver requested. This FOIA has been forwarded to OGC.

Yes No

High profile media request. Primary B/O is requested to send a copy of the response and attachments to OMR for informational purposes prior to release of response.

Yes No

Expedited processing requested. **DETERMINATION DUE: 04/10/09**

Yes No

Other: _____

BOOTH, FRERET, IMLAY & TEPPER, P.C.

ATTORNEYS AT LAW

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CHRISTOPHER D. IMLAY
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March 31, 2009

Via Courier (paper copies) and e-mail delivery
foia@fcc.gov

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445-12th Street, S.W.
Washington, D.C. 20554

Attention: Office of the Managing Director
FOIA Control Office

Re: **FREEDOM OF INFORMATION ACT REQUEST
AND REQUEST FOR EXPEDITED PROCESSING**

Dear Ms. Dortch:

This is a Freedom of Information Act (FOIA) request filed pursuant to Section 0.451 of the Commission's Rules. This request is being filed on paper in duplicate and as well by e-mail pursuant to Section 0.461(d)(1) of the Commission's Rules. The documents requested herein and described below are not routinely available for public inspection and are not now available for public inspection. They are, however, documents that have been ordered to be produced by the Commission for public inspection by the United States Court of Appeals for the District of Columbia Circuit. See, *American Radio Relay League, Inc. v. FCC*, 524 F.3d 227 (D.C. Cir. 2008).

This request is filed on behalf of the American Radio Relay League, Incorporated (ARRL). The undersigned serves as General Counsel for ARRL and as such is the requestor. The telephone number of the requestor is (301) 384-5525.

Description of Records. The records to be produced are in the custody of the Chief, Office of Engineering and Technology, who is for this purpose the custodian of the records. The records requested are the unredacted versions of certain documents and technical studies included in the record in redacted form in ET Docket No. 04-37 by the Office of Engineering and Technology on or about December 22, 2004. These documents are more particularly described in a document entitled "Submission by the Office of

FOIA CONTROL STAFF
2009 MAR 31 A 11:36
2009-311

Marlene H. Dortch, Secretary
FREEDOM OF INFORMATION ACT REQUEST
March 31, 2009
Page Two

Engineering and Technology, Federal Communications Commission" authored by Bruce Romano, Associate Chief, Office of Engineering and Technology (OET), bearing a date stamp of the Commission's Office of the Secretary of December 22, 2004, which lists the documents herein requested in unredacted form. A copy of Mr. Romano's cover pleading is attached hereto.

Portions of the documents to be produced (i.e. portions of documents referenced in the attached OET submission) were, according to Mr. Romano's pleading, "redacted, as they represent preliminary or partial results or staff opinions that were part of the deliberative process. Moreover, the redacted information was not relied on by the Commission in making its decision. The redacted portions are indicated by grey shading in place of the subject text." It is the entirety of the documents which had been redacted by the Commission, *in their unredacted form*, that is the subject of this FOIA request.

Statement of Reasons for Inspection pursuant to Section 0.461(c). Though the Commission earlier refused to disclose the *redacted portions* of these documents pursuant to one of ARRL's earlier FOIA requests for these same documents (See, FOIA Control Number 2004-591), the United States Court of Appeals for the District of Columbia Circuit ordered on April 25, 2008 that the *unredacted documents* be produced by the Commission [together with any other documents that the Commission relied on in reaching its decision in ET Docket 04-37]. See, *American Radio Relay League, Inc. v. FCC* (supra): "On remand, the Commission shall make available for notice and comment the unredacted 'technical studies and data that it has employed in reaching [its] decisions,' (citations omitted) and shall make them part of the rulemaking record." (*Id., slip op. at 19*). To date, the Commission has not yet complied with that order. However, the documents may not, as the result of this Court order, be withheld in their unredacted form. ARRL requires these unredacted documents in order to participate fully in the remand proceeding that was ordered by the Court.

Fees. ARRL herein specifies no maximum search fee for this request and is willing to pay a search fee for the documents. However, ARRL requests that no fee be imposed for three reasons: (1) the Commission is obligated by the aforementioned remand order of the United States Court of Appeals for the District of Columbia Circuit to disclose this information publicly, and this request was necessitated by the Commission's failure, over a period of eleven months, to comply with the Court's specific instruction; (2) there should be no search for the requested documents since the Associate Chief, Office of Engineering and Technology, specifically identified and caused to be redacted the same documents sought to be produced in their entire, unredacted form now; and (3) ARRL is a Section 501(c)(3) charitable, educational and

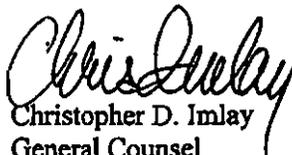
Marlene H. Dortch, Secretary
FREEDOM OF INFORMATION ACT REQUEST
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scientific organization which is seeking the materials exclusively in order to prepare to participate in further Commission rulemaking proceedings relative to ET Docket 04-37.

Request for Expedited Processing. It is respectfully submitted that no justification exists for any extension of time beyond the 20 working days afforded the Commission pursuant to Section 0.461(g) of the Commission's rules. The Commission has been aware of the affirmative obligation that it has to release the unredacted version of the requested documents for eleven months now. ARRL expects the Commission to adhere specifically to the disclosure deadline. For this same reason, and because the disclosure of the unredacted portions of the technical studies sought to be produced hereunder will necessitate technical review in order to permit ARRL to participate further in ET Docket No. 04-37 on remand from the Court of Appeals, ARRL requires these documents on an expedited basis pursuant to Section 0.461(h) of the Commission's Rules. Furthermore, the release of the unredacted documents should have been done pursuant to the Court's remand order well before now, and the location of the documents is clearly not an issue since the custodian of the records itself caused the redactions in the documents previously placed in the record.

Should any question arise concerning this FOIA request, kindly contact the undersigned requestor.

Yours very truly,



Christopher D. Imlay
General Counsel
American Radio Relay League, Incorporated

Cc: Mr. Bruce Romano
Mr. Julius Knapp
(via courier and e-mail)
Enclosure (as indicated)

Before the
Federal Communications Commission
Washington, D.C. 20554

RECEIVED

DEC 22 2004

Federal Communications Commission
Office of the Secretary

In the Matter of)
)
Amendment of Part 15 regarding new requirements) ET Docket No. 04-37
and measurement guidelines for Access Broadband)
over Power Line Systems)
)
)
Carrier Current Systems, including Broadband over) ET Docket No. 03-104
Power Line Systems)
)

**SUBMISSION BY THE OFFICE OF ENGINEERING AND TECHNOLOGY,
FEDERAL COMMUNICATIONS COMMISSION**

The following documents are submitted for inclusion in the record of ET Docket No. 04-37, "Amendment of Part 15 regarding new requirements and measurement guidelines for Access Broadband over Power Line Systems; Carrier Current Systems, including Broadband over Power Line Systems," ET Docket No. 03-104. These documents comprise internally-generated information upon which the Commission relied, in part, in reaching its determination in the Report and Order in this proceeding.

- 1) A presentation representing data collected during a field test of the Amperion and Main.Net BPL installations in Allentown, Pennsylvania, conducted to familiarize the FCC with the BPL operations and to develop measurement techniques;
- 2) A presentation representing data collected during a field test of the Current Technologies BPL installation in Potomac, Maryland, conducted to familiarize the FCC with the BPL operations and to develop measurement techniques;
- 3) A presentation representing data collected in a field investigation by FCC personnel of the BPL system in Briarcliff Manor, New York, which has been the subject of an interference complaint;
- 4) A presentation representing data collected in a field investigation by FCC personnel of the Progress Energy BPL system near Raleigh, North Carolina, which has been the subject of an interference complaint;
- 5) Spreadsheets with the data underlying each of items 1-4; and
- 6) Emails, letters, and test reports related to each of the complaints the Commission received regarding various BPL operations.

JA 00437

For items 1-4 above, certain portions of those presentations have been redacted, as they represent preliminary or partial results or staff opinions that were part of the deliberative process. Moreover, the redacted information was not relied on by the Commission in making its decision. The redacted portions are indicated by grey shading in place of the subject text.

Bruce Romano
Associate Chief
Office of Engineering and Technology

JA 00438

Non-Public -- For Internal Use Only – Contains Proprietary Information

Broadband Over Power-Line (BPL) Measurements in Allentown, PA

Results of Radiated Emissions Tests Conducted May 19-22, 2003



June 13, 2003

**Steve Martin & Andy Leimer
Technical Research Branch
FCC Laboratory**

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System Descriptions

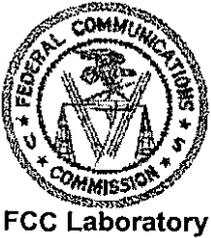
(PROPRIETARY)

AMPERION

- **Signal Structure**
 - OFDM, 3 MHz bandwidth
 - Separate channels for nearby links
- **Injection Level**
 - Set before installation
- **Backhaul Connection**
 - Wireless link (802.11b) to fiber or T1
- **Customer connection**
 - Wireless link (802.11b)
- **BPL Coupling**
 - Inductively couples to one line--usually phase
- **Device Types**
 - “Injector”--BPL-to-backhaul wireless
 - “Extractor”--BPL-to-customer wireless
 - “Repeater”--BPL repeater & wireless to customer
- **Injection Duty Factor**
 - 100% for Injector & outbound Repeater
 - 25-100% (data dependent) for Extractor & inbound Repeater

MAIN.NET

- **Signal Structure**
 - DSSS, One channel, 3-20 MHz
 - TDM for nearby links
- **Injection Level**
 - Set by software over internet
- **Backhaul Connection**
 - BPL to fiber or T1
- **Customer Connection**
 - Proprietary low-voltage BPL
- **BPL Coupling**
 - Inductively couples to two lines--phase & neutral--using opposite polarities
- **Device Types**
 - “Concentrator”--BPL at backhaul
 - “Repeater”--BPL repeater
- **Injection Duty Factor**
 - Data dependent



Major Conclusions

Compliance w/Part 15 Emission Limits in Intended Band of Operation

- The following comply—*to the extent tested*:
 - Amperion Overhead Injector & Extractor
 - Caveat about operation > 30 MHz & untested operating frequencies
 - Amperion Underground Repeater
 - Main.Net Underground Repeater
- The following does not comply*
 - Main.Net Overhead Repeater (3 dB over the limit)
 - Power level set higher than in submitted test report
 - *Marginal compliance could be argued by distance scaling from ground wire

ORIGINAL UNREDACTED

Characteristics

- Overhead devices do **not** act as point sources (virtually no decay 230 m from coupler)
- Differential two-wire signal injection affects the polarization of radiated emissions from overhead devices



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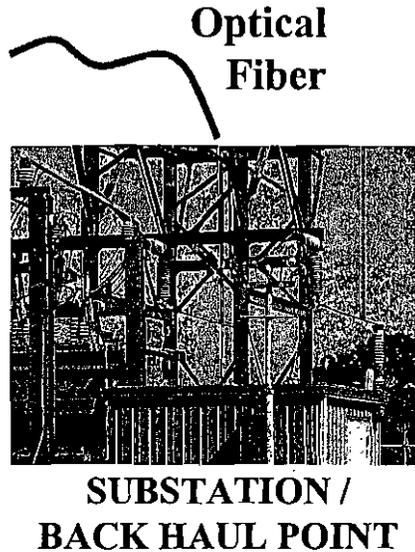
Amperion Overhead System



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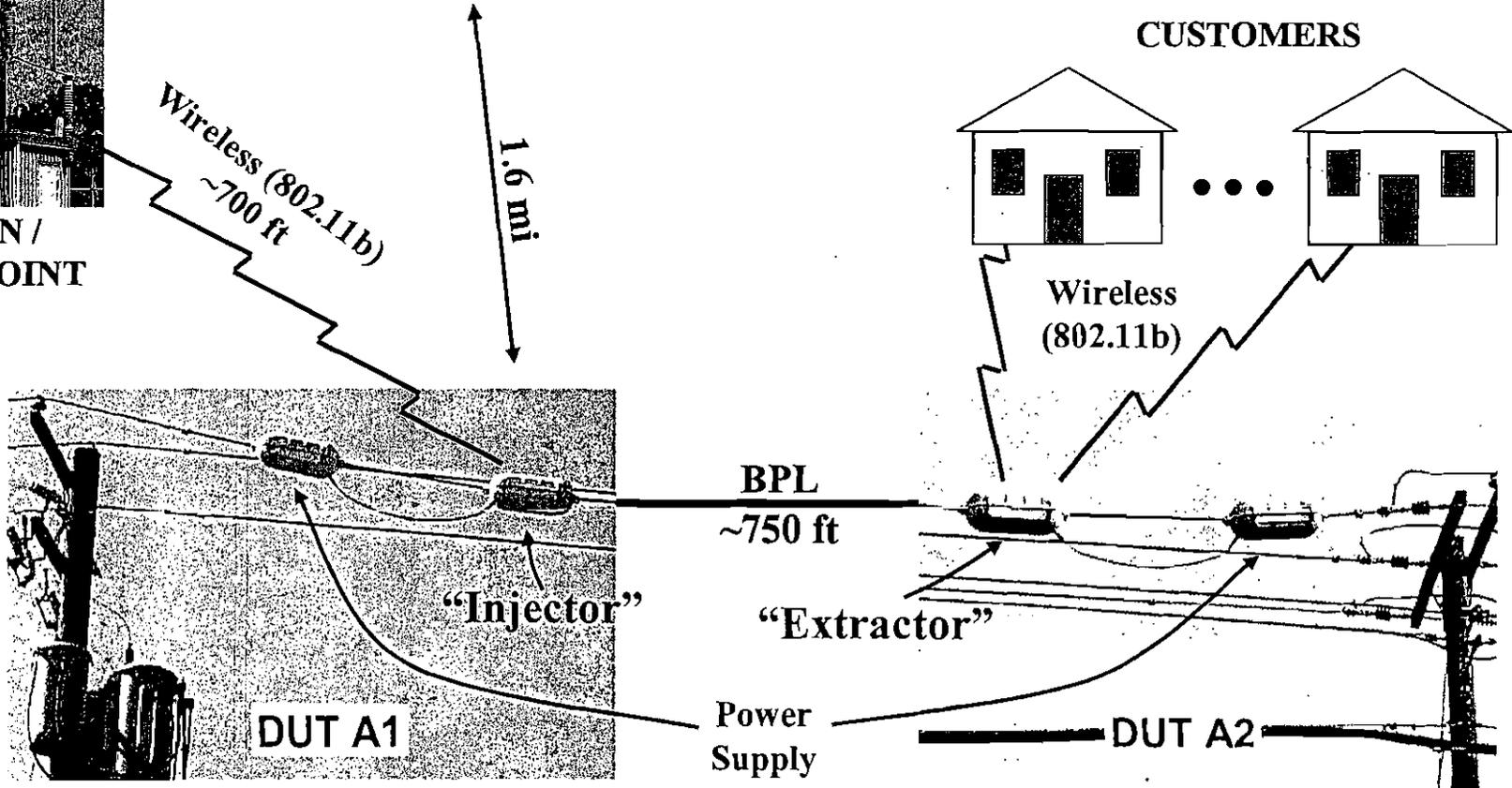
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Amperion's Overhead System



5000 Watts

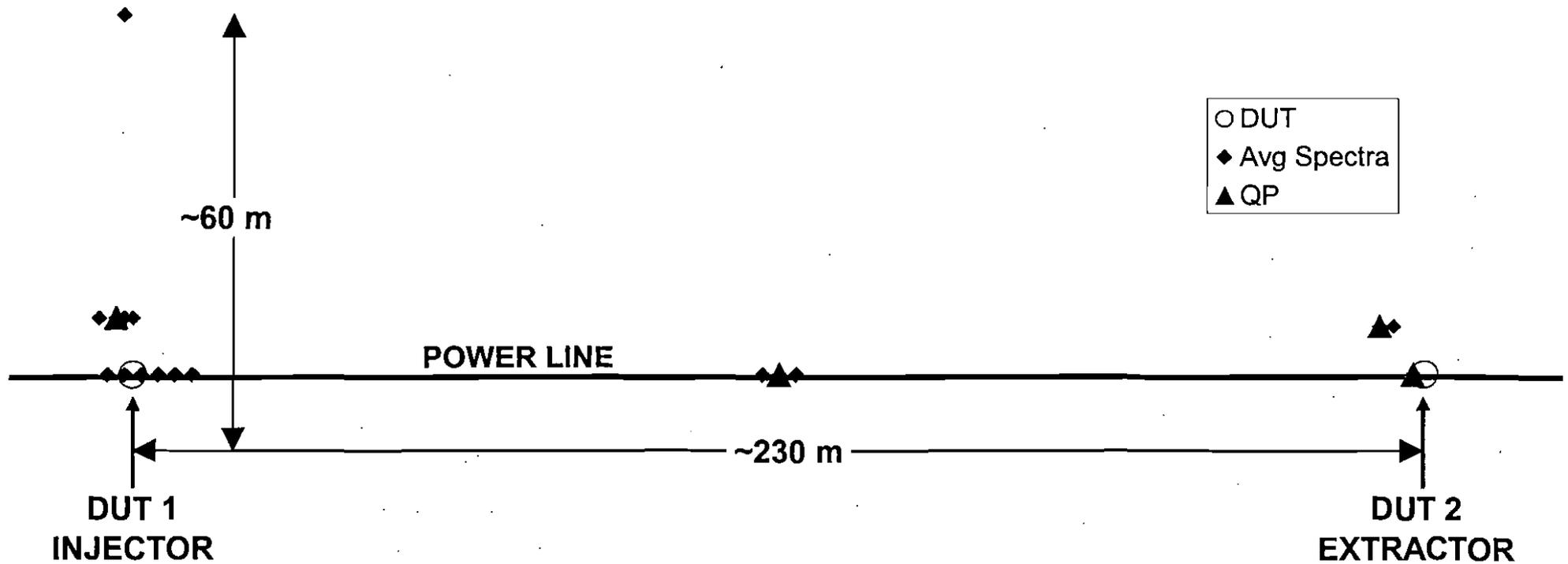
- "Good Times, Great Oldies"
- Less Dynamic Range For BPL Emission Measurements





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Measurement Locations



Made measurements at 18 antenna locations around the Amperion overhead BPL system



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DUT A1





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Midpoint Between DUTs

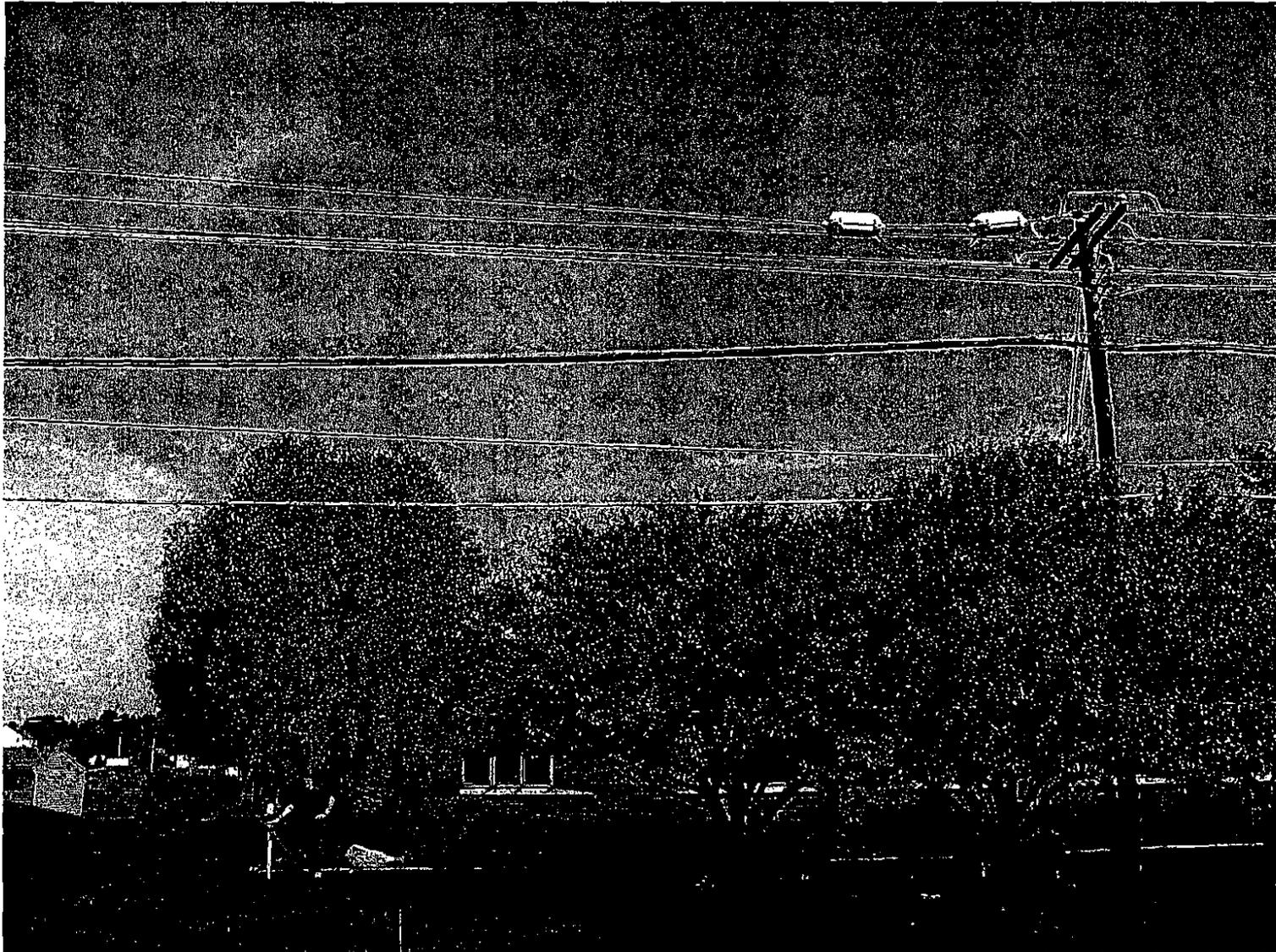




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DUT A2

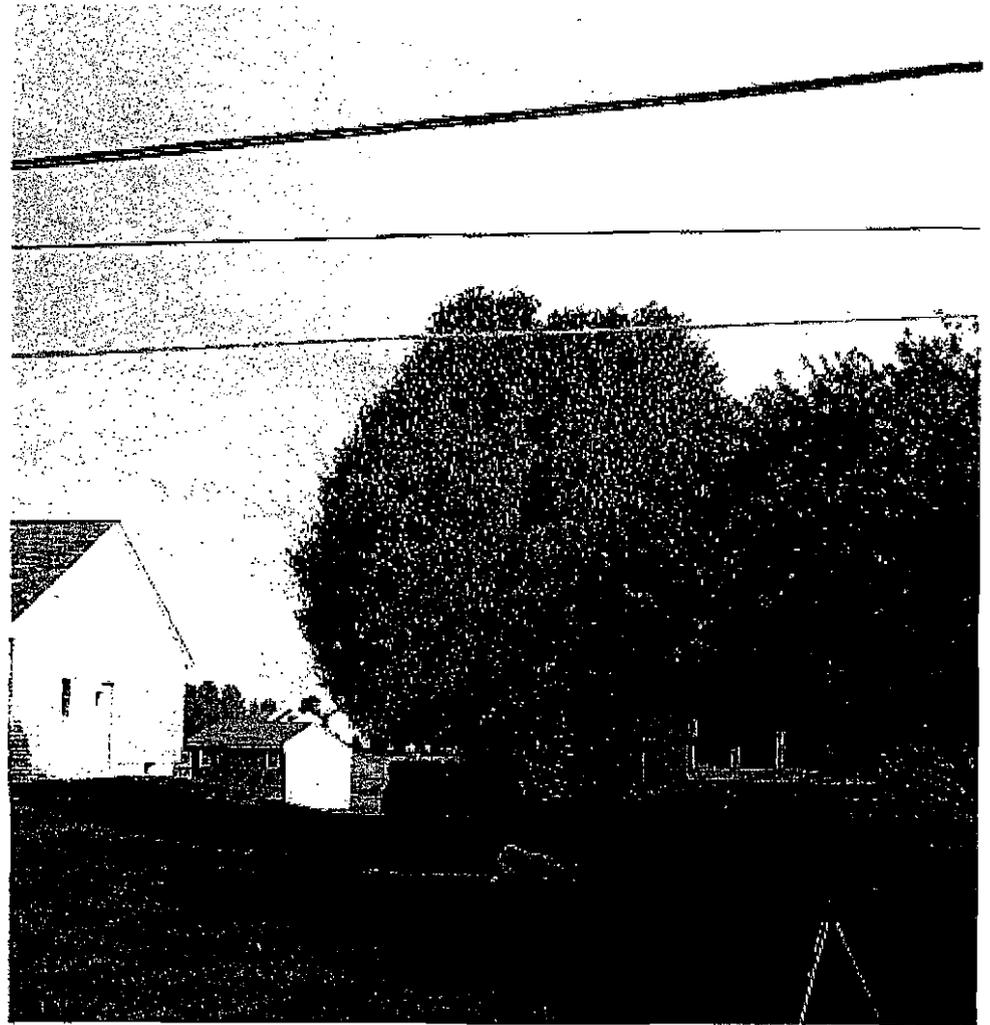




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AM TOWERS VISIBLE FROM MEASUREMENT SITE

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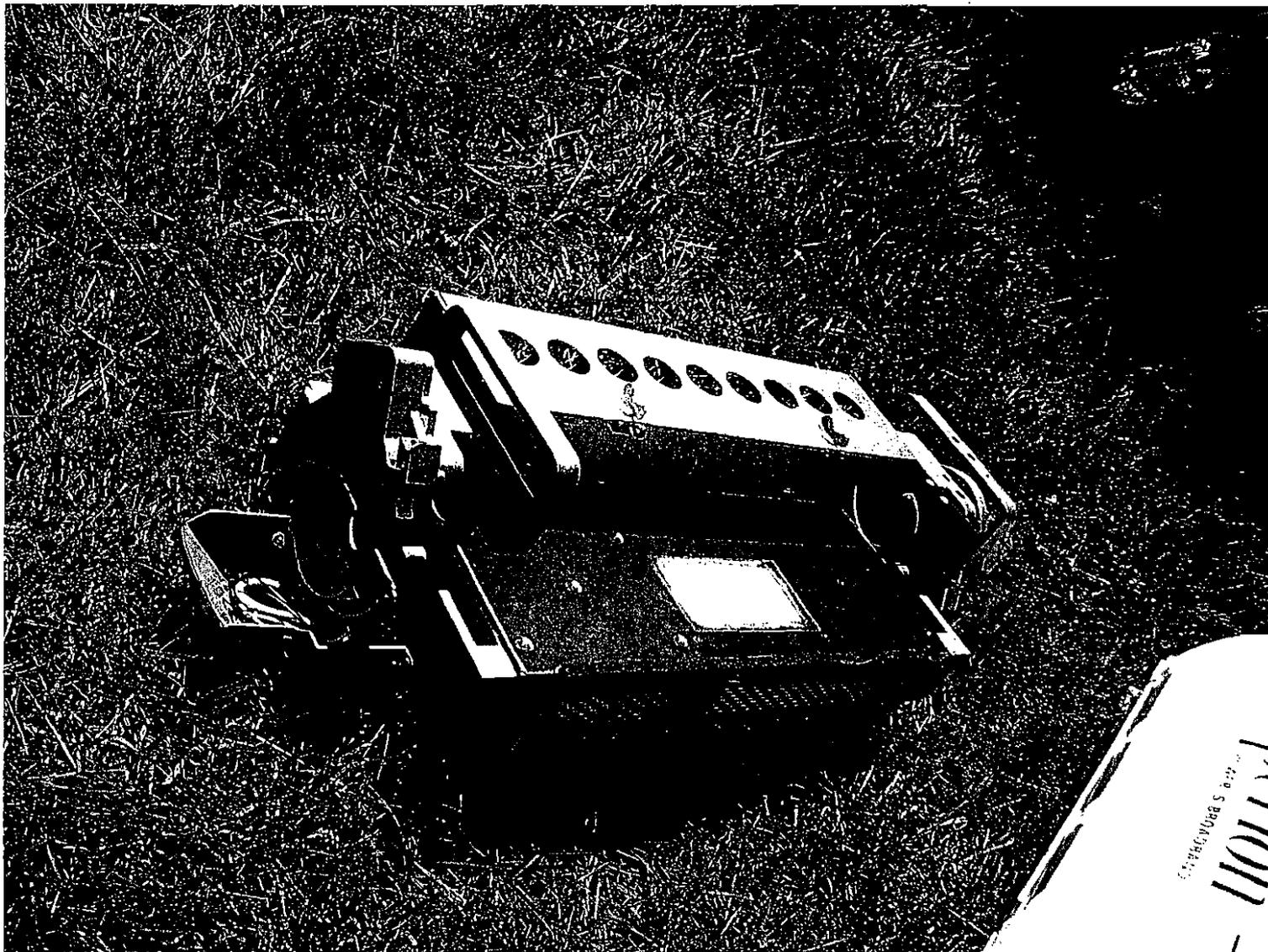




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DUT A2

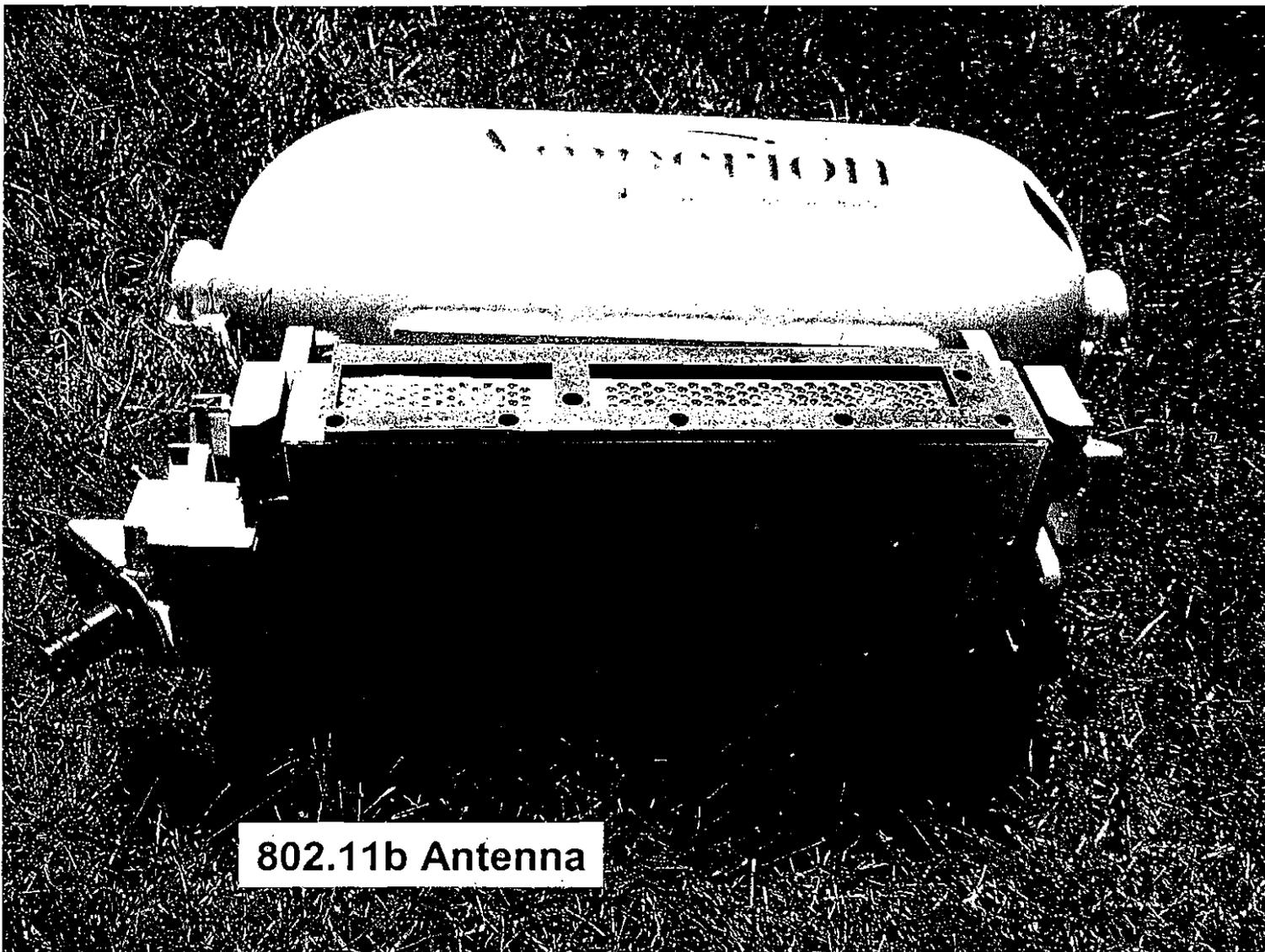




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DUT A2

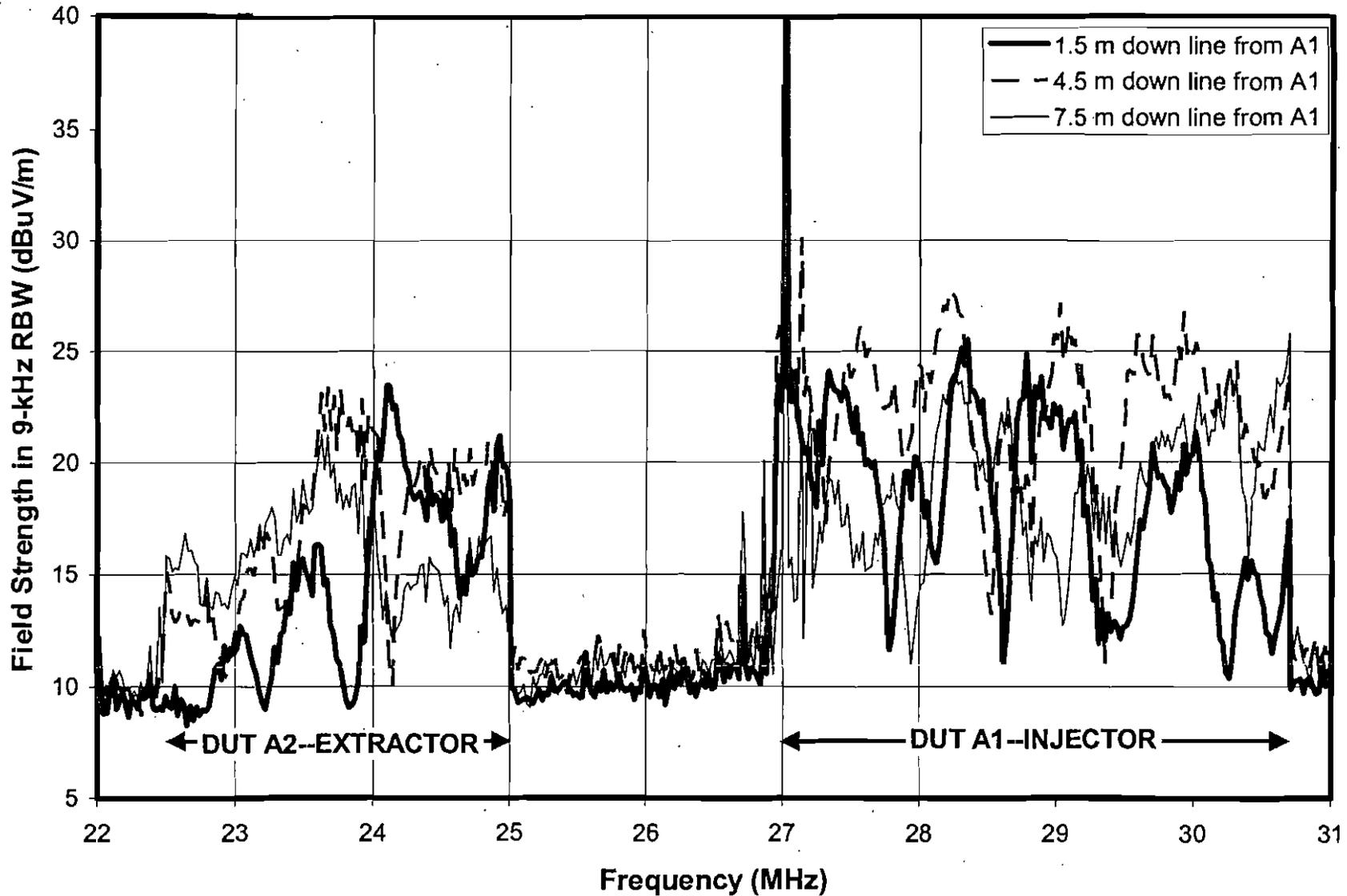


802.11b Antenna



Under DUT A1

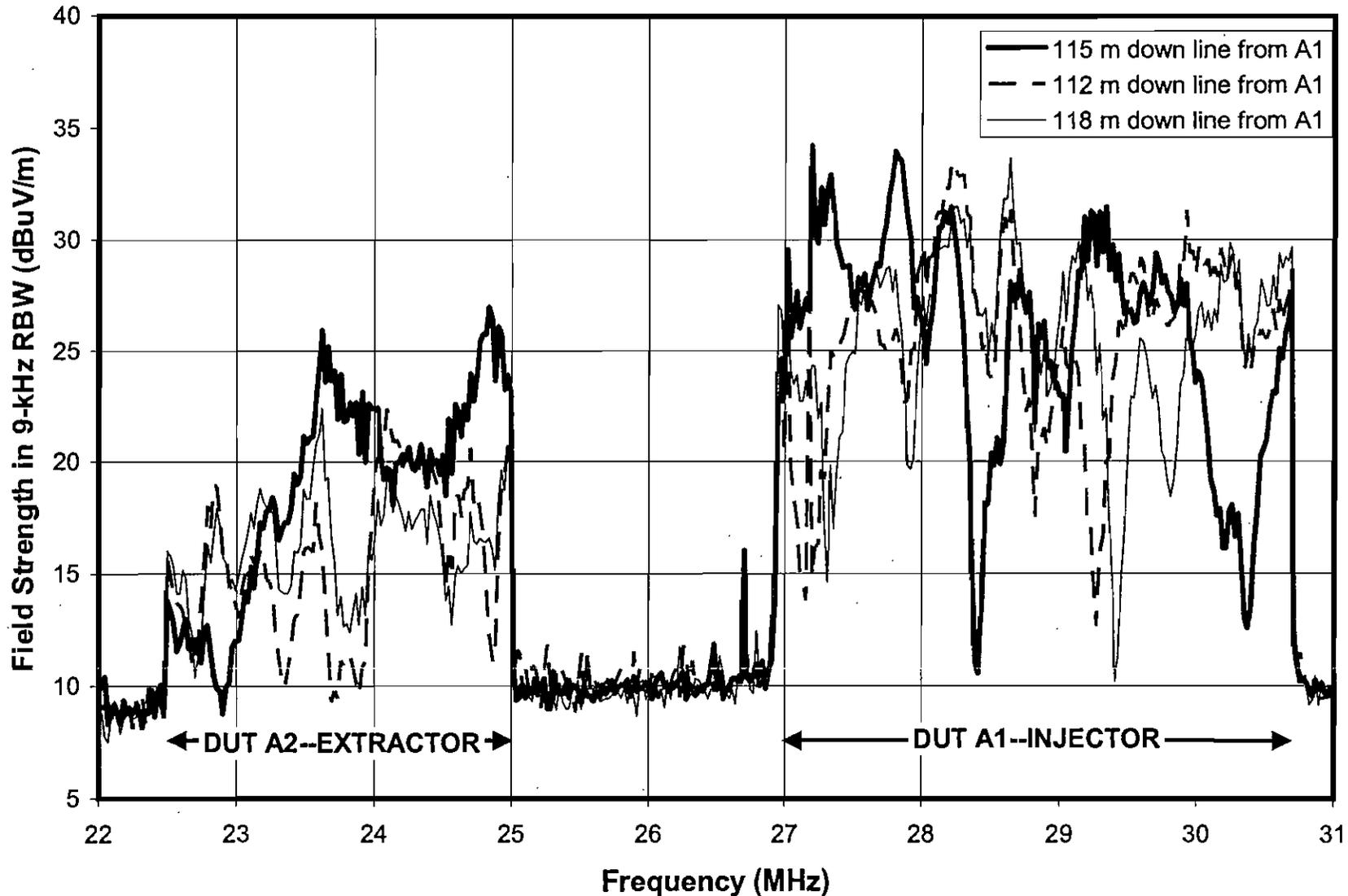
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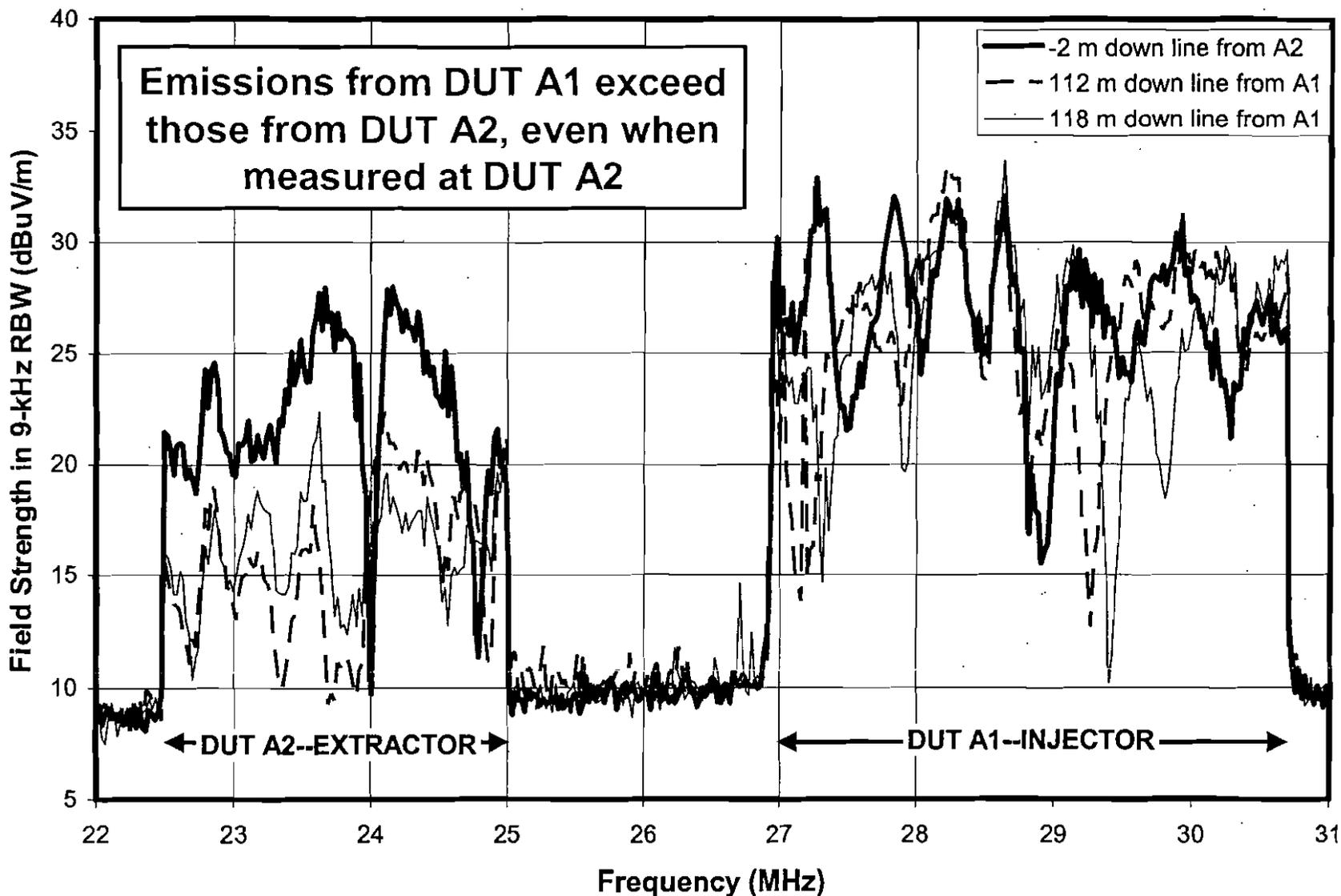
Under Midpoint Between DUTs





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Under DUT A2

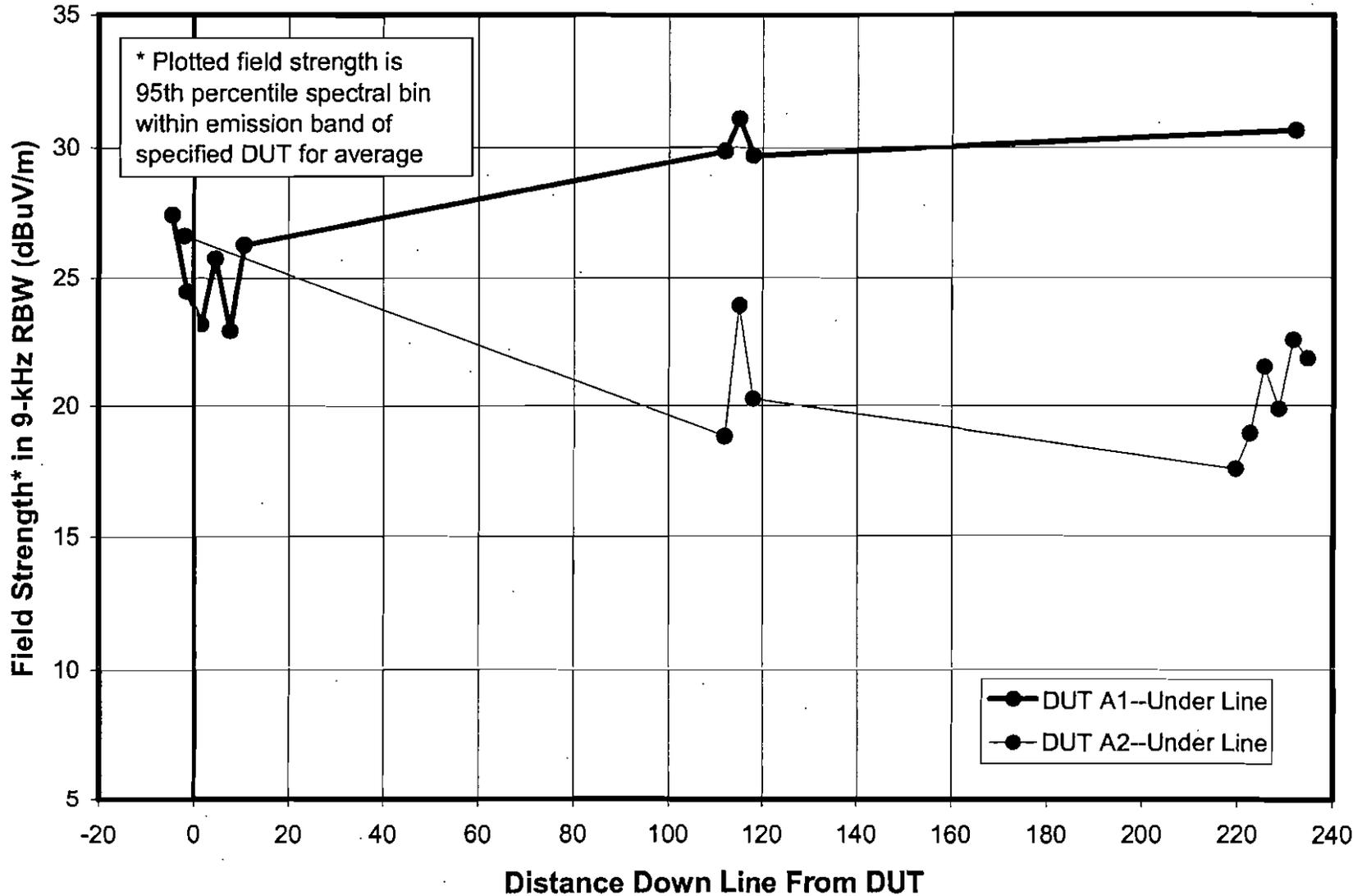




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Under-Line Field Strength vs Distance Down Line

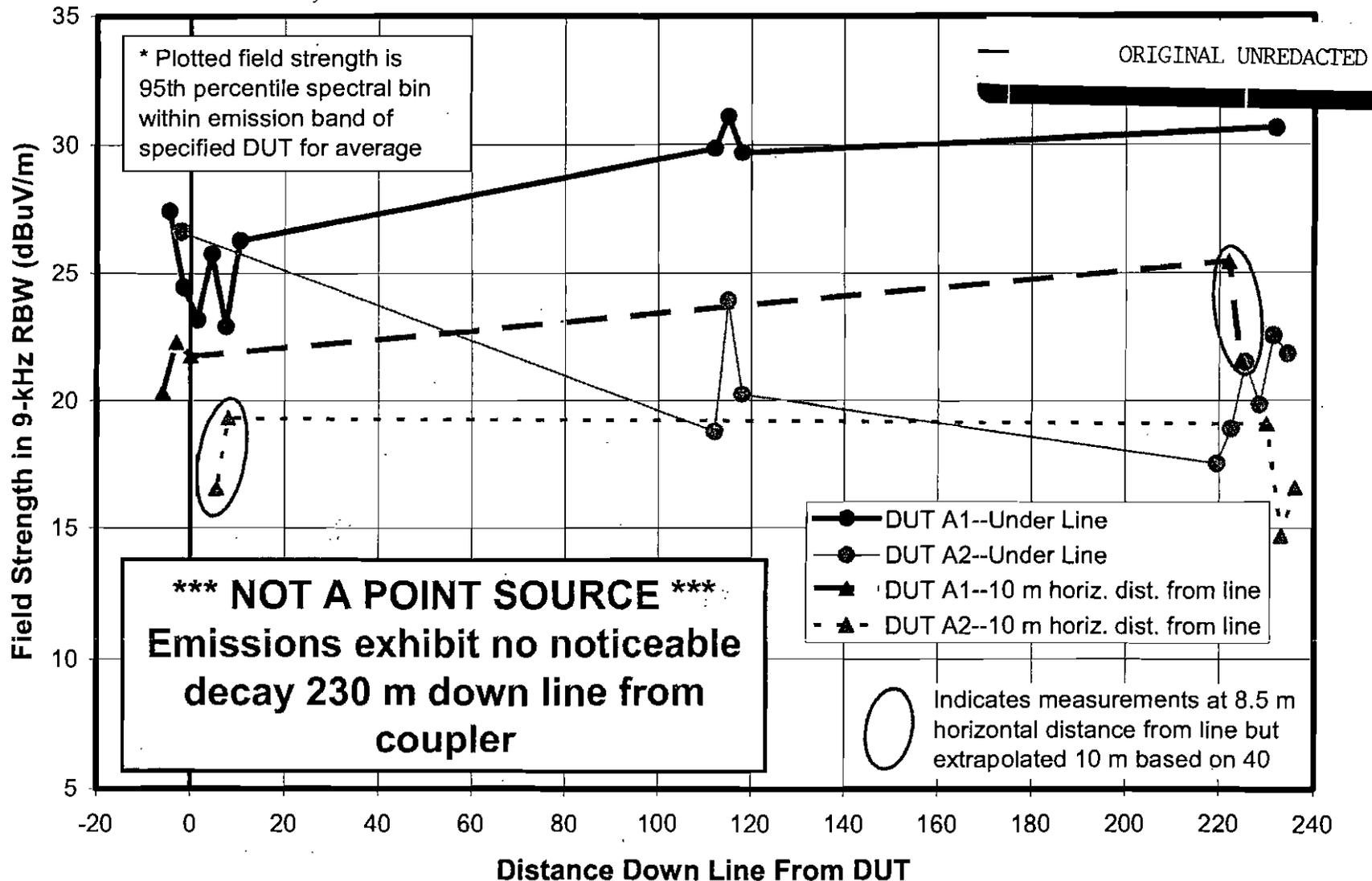




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Under-Line Field Strength vs Distance Down Line





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Quasi Peak of DUT A1: 10 m from line near DUT A1

