

FOR
FCC
USE
ONLY

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FCC 302-AM
APPLICATION FOR AM
BROADCAST STATION LICENSE

(Please read instructions before filling out form.)

FOR COMMISSION USE ONLY

FILE NO. **BZ-20180823AAAY**

SECTION I - APPLICANT FEE INFORMATION

1. PAYOR NAME (Last, First, Middle Initial)

Wilson, Danny

MAILING ADDRESS (Line 1) (Maximum 35 characters)

5703 Red Bug Lake Rd.

MAILING ADDRESS (Line 2) (Maximum 35 characters)

Suite 535

CITY

Winter Springs

STATE OR COUNTRY (if foreign address)

FL

ZIP CODE

32709

TELEPHONE NUMBER (include area code)

4048935752

CALL LETTERS

WGFS

OTHER FCC IDENTIFIER (if applicable)

Facility ID 54551

2. A. Is a fee submitted with this application?

Yes No

B. If No, indicate reason for fee exemption (see 47 C.F.R. Section

Governmental Entity Noncommercial educational licensee Other (Please explain):
Non Fee Filing Return to Direct Measurement

C. If Yes, provide the following information:

Enter in Column (A) the correct Fee Type Code for the service you are applying for. Fee Type Codes may be found in the "Mass Media Services Fee Filing Guide." Column (B) lists the Fee Multiple applicable for this application. Enter fee amount due in Column (C).

(A)	(B)	(C)	FOR FCC USE ONLY
FEE TYPE CODE	FEE MULTIPLE	FEE DUE FOR FEE TYPE CODE IN COLUMN (A)	
	0 0 0 1	\$	

To be used only when you are requesting concurrent actions which result in a requirement to list more than one Fee Type Code.

(A)	(B)	(C)	FOR FCC USE ONLY
FEE TYPE CODE	FEE MULTIPLE	FEE DUE FOR FEE TYPE CODE IN COLUMN (A)	
	0 0 0 1	\$	

ADD ALL AMOUNTS SHOWN IN COLUMN C, AND ENTER THE TOTAL HERE. THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED REMITTANCE.

TOTAL AMOUNT REMITTED WITH THIS APPLICATION	FOR FCC USE ONLY
\$	

2018 AUG 23 PM 1:58

Received & Inspected

AUG 23 2018

FCC Mailroom

SECTION II - APPLICANT INFORMATION		
1. NAME OF APPLICANT Light Media Holdings, Inc.		
MAILING ADDRESS P.O Box 1023		
CITY Pine Lake	STATE GA	ZIP CODE 30072

2. This application is for:

Commercial Noncommercial

AM Directional AM Non-Directional

Call letters WGFS	Community of License Covington	Construction Permit File No. GA	Modification of Construction Permit File No(s). BL-20010525ADK	Expiration Date of Last Construction Permit NA
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3. Is the station now operating pursuant to automatic program test authority in accordance with 47 C.F.R. Section 73.1620?

Yes No

If No, explain in an Exhibit.

Exhibit No.

4. Have all the terms, conditions, and obligations set forth in the above described construction permit been fully met?

Yes No

If No, state exceptions in an Exhibit.

Exhibit No.

5. Apart from the changes already reported, has any cause or circumstance arisen since the grant of the underlying construction permit which would result in any statement or representation contained in the construction permit application to be now incorrect?

Yes No

If Yes, explain in an Exhibit.

Exhibit No.

6. Has the permittee filed its Owners Report (FCC Form 323) in accordance with 47 C.F.R. Section 73.3616(b)?

Yes No

If No, explain in an Exhibit.

Does not apply

Exhibit No.

7. Has an adverse finding been made or an adverse finding been issued by any court or administrative body with respect to the applicant or parties to the application in a civil or criminal proceeding, brought under the provisions of any law relating to the following: any felony; mass media related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?

Yes No

Exhibit No.

If the answer is Yes, attach as an Exhibit a full disclosure of the persons and matters involved, including an identification of the court or administrative body and the proceeding (by dates and file numbers), and the disposition of the litigation. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 U.S.C. Section 1.65(c), the applicant need only provide: (i) an identification of that previous submission by reference to the file number in the case of an application, the call letters of the station regarding which the application or Section 1.65 information was filed, and the date of filing; and (ii) the disposition of the previously reported matter.

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A X Z
0010215812

8. Does the applicant, or any party to the application, have a petition on file to migrate to the expanded band (1605-1705 kHz) or a permit or license either in the existing band or expanded band that is held in combination (pursuant to the 5 year holding period allowed) with the AM facility proposed to be modified herein?

Yes No

If Yes, provide particulars as an Exhibit.

Exhibit No.

The APPLICANT hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because use of the same, whether by license or otherwise, and requests and authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended).

The APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations and that all the exhibits are a material part hereof and are incorporated herein as set out in full in

CERTIFICATION

1. By checking Yes, the applicant certifies, that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, or, in the case of a non-individual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits that includes FCC benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. Section 1.2002(b).

Yes No

2. I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Name Danny Wilson	Signature /S/ Danny Wilson	
Title President	Date 8/16/2018	Telephone Number 4048935752

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The Commission will use the information provided in this form to determine whether grant of the application is in the public interest. In reaching that determination, or for law enforcement purposes, it may become necessary to refer personal information contained in this form to another government agency. In addition, all information provided in this form will be available for public inspection. If information requested on the form is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Your response is required to obtain the requested authorization.

Public reporting burden for this collection of information is estimated to average 639 hours and 53 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, can be sent to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0627), Washington, D. C. 20554. Do NOT send completed forms to this address.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

9. Description of antenna system ((f directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary.)

Type Radiator Uniform Cross-section Guyed Tower	Overall height in meters of radiator above base insulator, or above base, if grounded. 52.4	Overall height in meters above ground (without obstruction lighting) 53.4	Overall height in meters above ground (include obstruction lighting) N/A	If antenna is either top loaded or sectionalized, describe fully in an Exhibit. <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;">Exhibit No.</div>
-------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Excitation Series Shunt

Geographic coordinates to nearest second. For directional antenna give coordinates of center of array. For single vertical radiator give tower location.

North Latitude 33 ° 37 ' 14 "	West Longitude 083 ° 53 ' 04 "
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If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits.

Exhibit No.
EE-1

Also, if necessary for a complete description, attach as an Exhibit a sketch of the details and dimensions of ground system.

Exhibit No.

10. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

A new FM translator antenna was installed near the top of the tower.

An isolation unit was installed at the base of the tower.

11. Give reasons for the change in antenna or common point resistance.

Installation of W288DX translator antenna and isocoupler,

as authorized by construction permit number BNPFT-20180418AAX.

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Name (Please Print or Type) Daniel L. Davis, CPBE	Signature (check appropriate box below)
Address (include ZIP Code) D Squared Broadcast Technologies, Inc. PO Box 48 Madison, GA 30650	Date August 14, 2018
	Telephone No. (Include Area Code) 706-342-4474

Technical Director

Registered Professional Engineer

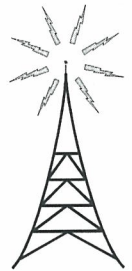
Chief Operator

Technical Consultant

Other (specify)

D²

D Squared Broadcast Technologies, Inc.
P.O. Box 48
Madison, GA 30650

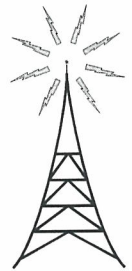


FCC FORM-302AM
EXHIBIT EE-1

WGFS-AM
Covington, GA
August 14, 2018



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P.O. Box 48
Madison, GA 30650

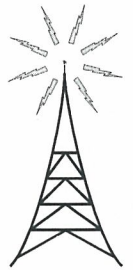


**ANTENNA RESISTANCE
MEASUREMENT**

WGFS-AM
Covington, GA
August 14, 2018



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P.O. Box 48
Madison, GA 30650



Qualifications

WGFS-AM
Covington, GA
August 14, 2018

Daniel L. Davis deposes and says:

That he prepared the attached exhibit and that all work contained in that exhibit is true of his knowledge and belief, and as to such statements made on belief, they are believed to be true.

That he currently holds a F.C.C. General Class Radiotelephone License and had held a FCC First Class Radiotelephone License for ten years prior to receiving the General Class License in 1985. He also holds Professional Broadcast Engineer certification through the Society of Broadcast Engineers, and has been a member of the SBE since 1983.

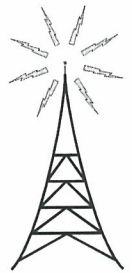
That he received the degree of Master of Education from the University of Georgia in 1978, and that his undergraduate program of study was strong in Mathematics and Physics.

That he has been involved in the technical aspects of broadcasting since 1975, and has performed design, installation, project management, troubleshooting, and maintenance on broadcast facilities, including compliance measurements in connection with this work.

Daniel L. Davis 08/14/18
FCC Lic. No. PG-6-14509
SBE CPBE No. 50651
GA Lic. No. LVU-003485



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Narative Statement

WGFS-AM
Covington, GA
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A FM translator antenna was installed on the tower, along with an isocoupler. Pursuant to a special condition of the W28DX construction permit, new antenna resistance measurements were made. The new impedance was determined with a vector impedance analyzer, using the following procedure, as specified in §73.54 of the FCC Rules and Regulations. Care was taken to establish a low impedance ground path between the bridge and the antenna tuning unit ground. Then the ATU output Test Jumper was disconnected. The test port of the analyzer was connected to the tower side of the Test Jumper terminal, and a series of resistance and reactance measurements was made at discrete frequencies. This data was plotted on a graph using the software supplied with the analyzer. The station operating impedance was determined geometrically from the graph.

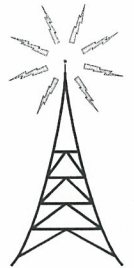
The new station operating impedance is $38.9 + j19.3$ ohms.

The antenna current for 3.9 kilowatts of antenna input power is 10.01 Amperes.

The antenna current for .212 kilowatt is 2.33 Amperes.



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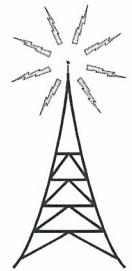
Tabulation of Data

WGFS-AM
Covington, GA
August 14, 2018

Frequency MHz	Antenna	Antenna
	Resistance - Ohms	Reactance—Ohms
1.400	35.587	8.626
1.401	35.612	9.050
1.402	35.729	9.409
1.403	35.797	9.751
1.404	35.851	10.160
1.405	35.921	10.518
1.406	36.066	10.868
1.407	36.219	11.204
1.408	36.273	11.587
1.409	36.485	11.903
1.410	36.891	12.093
1.411	36.736	12.607
1.412	36.784	12.998
1.413	36.922	13.335
1.414	37.107	13.632
1.415	37.254	14.016
1.416	37.385	14.335
1.417	37.568	14.602
1.418	37.611	15.038
1.419	37.679	15.409
1.420	37.682	15.875



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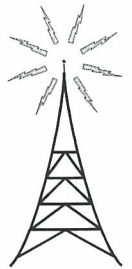
Tabulation of Data

WGFS-AM
Covington, GA
August 14, 2018

Frequency MHz	Antenna	Antenna
	Resistance - Ohms	Reactance—Ohms
1.421	37.777	16.195
1.422	37.886	16.574
1.423	38.029	16.922
1.424	38.232	17.221
1.425	38.365	17.608
1.426	38.470	17.938
1.427	38.630	18.253
1.428	38.565	18.709
1.429	38.712	19.043
1.430	38.937	19.358
1.431	39.127	19.681
1.432	39.319	19.970
1.433	39.268	20.467
1.434	39.379	20.828
1.435	39.387	21.199
1.436	39.536	21.594
1.437	39.696	21.891
1.438	39.843	22.259
1.439	39.922	22.610
1.440	40.121	22.949



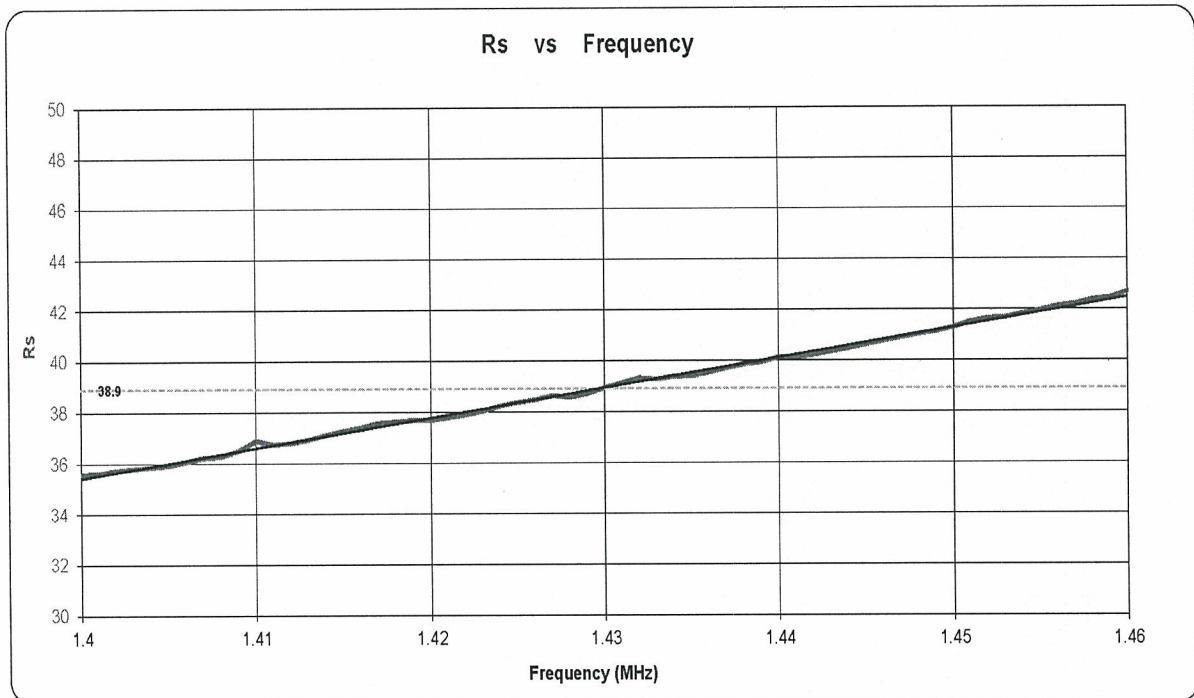
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Antenna Resistance Graph

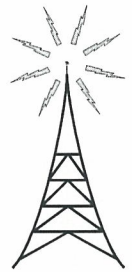
WGFS-AM
Covington, GA
August 14, 2018

File: WGFS-Ant-08142018.csv





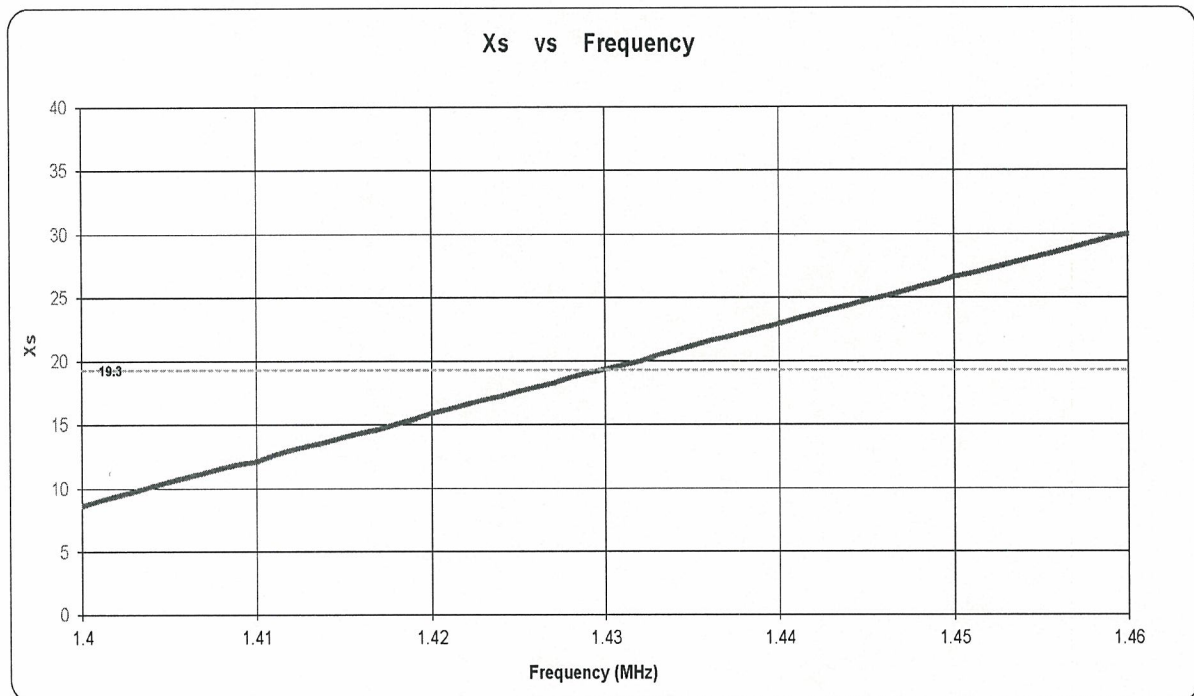
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Antenna Reactance Graph

WGFS-AM
Covington, GA
August 14, 2018

File: WGFS-Ant-08142018.csv





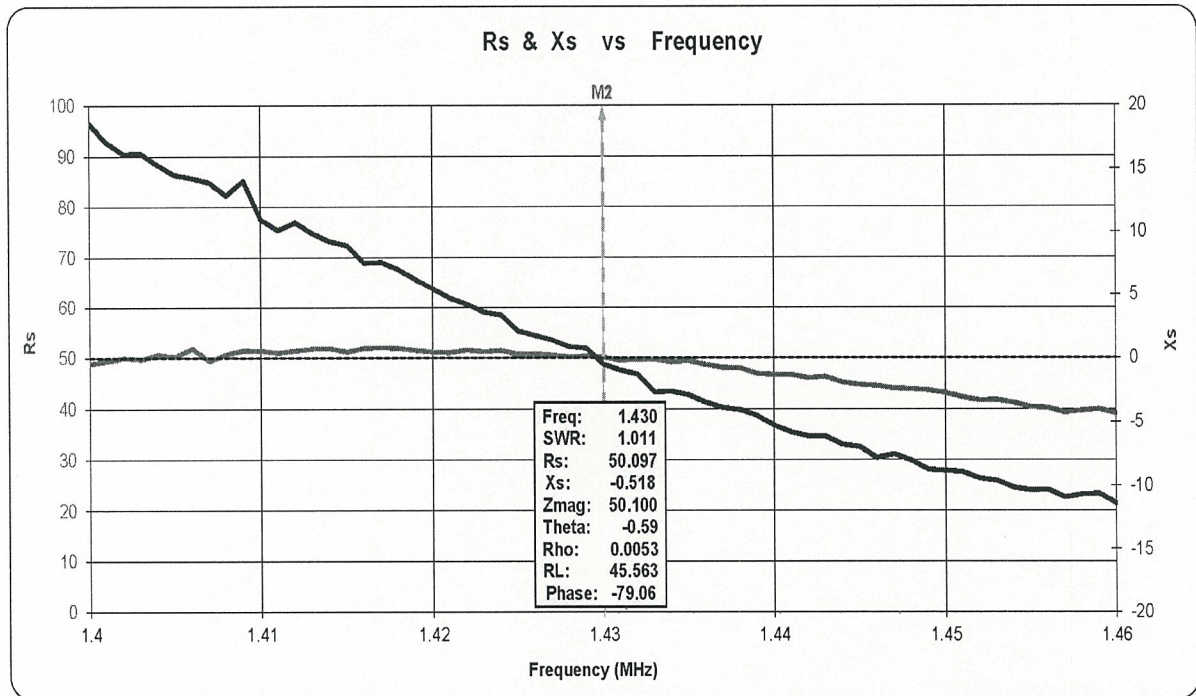
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Antenna Coupling Unit Input Impedance

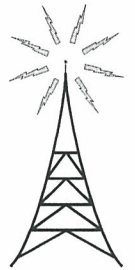
WGFS-AM
Covington, GA
August 14, 2018

File: WGFS-ACU-08142018.csv





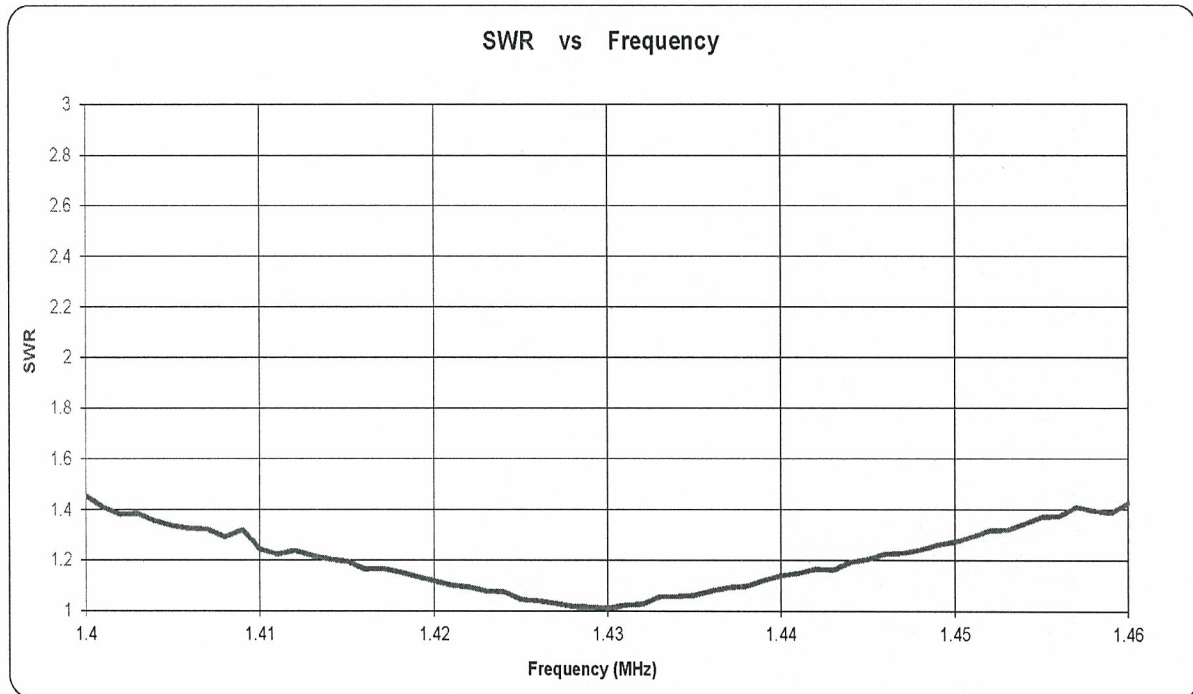
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Madison, GA 30650



Antenna Coupling Unit Input SWR

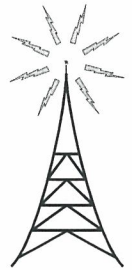
WGFS-AM
Covington, GA
August 14, 2018

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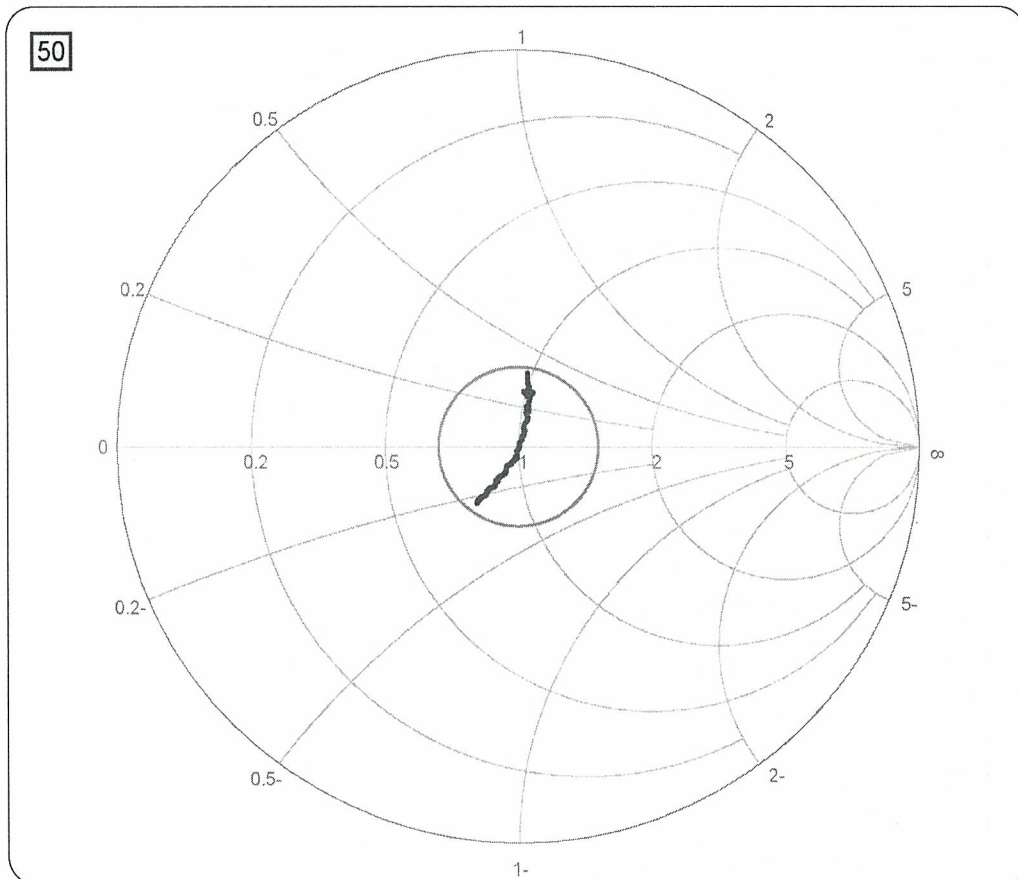
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**Antenna Coupling Unit Input
 Smith Chart**

WGFS-AM
 Covington, GA
 August 14, 2018

File: WGFS-ACU-08142018.csv



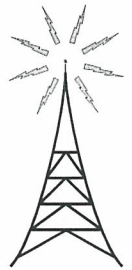
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<http://ac6la.com/>

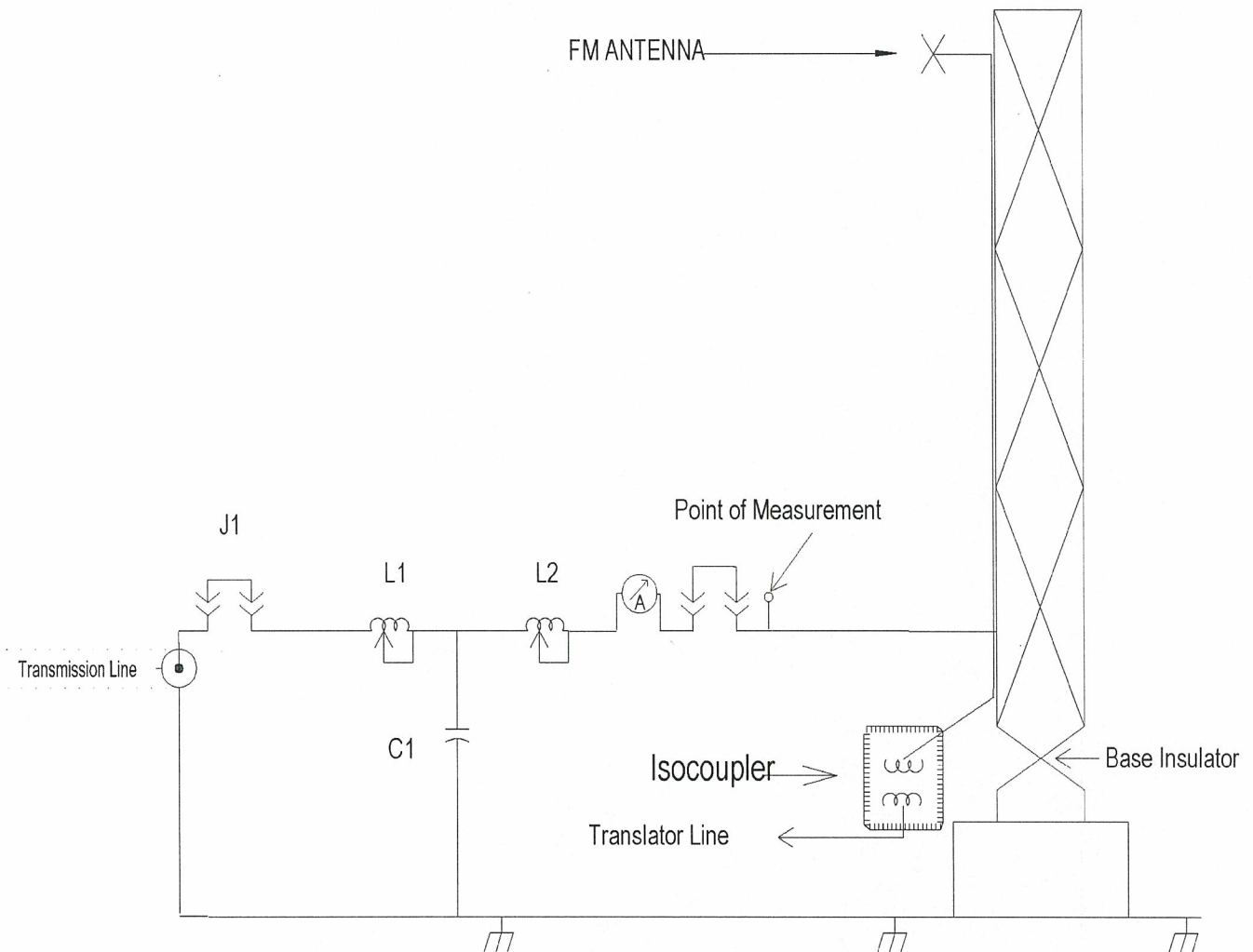


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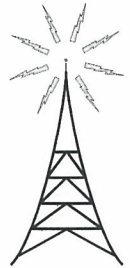
Antenna System Schematic

WGFS-AM
Covington, GA
August 14, 2018



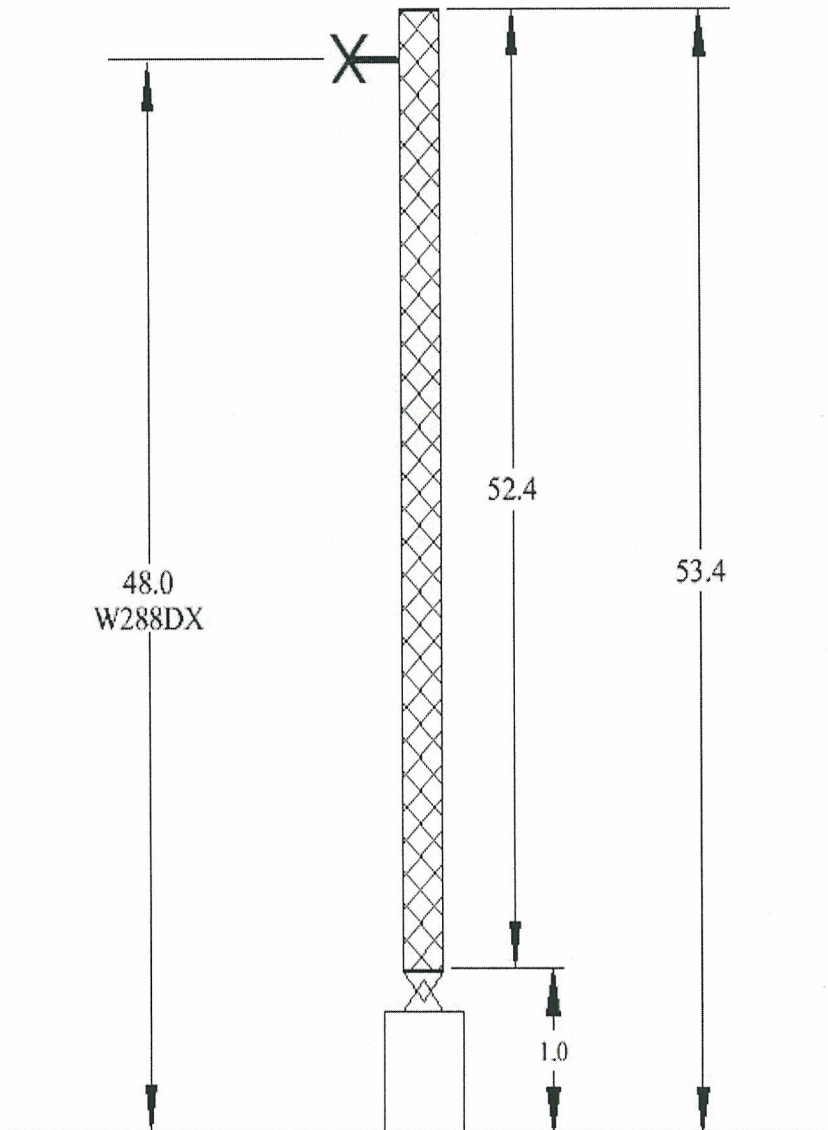


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Tower Sketch

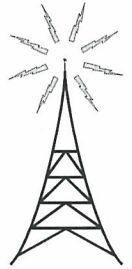
WGFS-AM
Covington, GA
August 14, 2018



All Units Are Meters - Not To Scale



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Equipment Used

WGFS-AM
Covington, GA
August 14, 2018

<u>TYPE</u>	<u>MAKE</u>	<u>MODEL</u>	<u>SERIAL</u>	<u>CAL.</u>
Vector Impedance Analyzer	Array Solutions	Power Aim 120	1071	07/28/2018

The analyzer was calibrated using Short, Open, and 50 ohm standards at the end of 18 inch test leads. The same test leads were used for conducting the antenna resistance measurements.