

## **TECHNICAL NARRATIVE**

This Technical Statement and attached exhibits were prepared on behalf of Zimmer Midwest Communications, Inc. (“ZMCI”), licensee of KWTO-FM, Channel 267C, Facility ID No. 63339, Springfield, Missouri. ZMCI herein proposes to modify the license of KWTO-FM to operate on Channel 267C, licensed to Buffalo, Missouri. ZMCI is also the licensee of FM station KBFL-FM, Channel 260C3, Facility ID No. 33654, Buffalo, MO. ZMCI also proposes to modify the license of KBFL-FM to operate on Channel 260C3, licensed to Fair Grove, Missouri. The KBFL-FM and KWTO-FM applications are being filed as contingently related applications pursuant to Section 73.3517(e) of the Commission’s rules.

### **Overview**

Two minor changes to the FM spectrum are being proposed. The first minor change involves a city of license change only for KWTO-FM. The second involves a city of license change and an increase in effective radiated power for KBFL-FM.

### **Modification of KWTO-FM from Channel 267C at Springfield, Missouri to Channel 267C at Buffalo, Missouri**

ZMCI, licensee of KWTO-FM Channel 267C, Springfield, MO, is filing a contingent FCC minor modification application requesting the Commission to change the community of license of KWTO-FM from Springfield, MO to Buffalo, MO. ZMCI is filing the proposed KWTO-FM city of license change as a backfill to continue to provide a first local transmission service to Buffalo, Missouri following the proposed city of license change of KBFL-FM from Buffalo, Missouri to Fair Grove, Missouri.

The KWTO-FM minor change application is a city of license change only. There will be no change to its technical facilities. KWTO-FM will continue to operate on Channel 267C with 97.8 kW at 454 meters HAAT from the tower registered with ASR No. 1235832. Therefore, there will be no gain or loss in area or population served. Springfield, MO is included in the Springfield, MO Urbanized Area and KWTO-FM places an FCC F(50,50) 70 dBu contour over 100 percent of the corporate boundaries of Springfield, MO. Therefore, this is an Intra-Urbanized Area city of license change. The proposed modification of KWTO-FM has been reviewed and it is believed to be consistent with the policies established in FCC 11-28, Second Report and Order in *Rural Radio*<sup>1</sup> released on March 3, 2011 and FCC 12-127 and Second Order on Reconsideration in *Rural Radio*<sup>2</sup> released on October 12, 2012.

The KWTO-FM and KBFL-FM minor modification applications are being filed contingently and a combined FCC Section 307(b) analysis is included in both applications. This application includes a combined Section 307(b) analysis that demonstrates the two contingently filed change of community of license applications would serve the public interest, as required by Section 307(b) of the Communications Act of 1934, under Priority 3 of Revision of FM Assignment Policies and Procedures, Second Report and Order, 90 FCC 2d 88 (1982) by providing a first local service at Fair Grove, MO and Priority 4 "Other public service matters" under persons receiving an additional reception service by providing an additional reception service to 6,472 persons.

<sup>1</sup> *Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures*, Second Report and Order, First Order on Reconsideration, and Second Further Notice of Proposed Rulemaking, 26 FCC Rcd 2556 (2011) ("Second R&O").

<sup>2</sup> *Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures*, Second Order on Reconsideration, FCC 12-127 (rel. Oct 12, 2012) ("Second Order").

**Modification of KBFL-FM from Channel 260C3 at Buffalo, Missouri  
to Channel 260C3 at Fair Grove, Missouri**

ZMCI seeks to modify KBFL-FM, Channel 260C3, Buffalo, MO to be licensed to Fair Grove, MO on Channel 260C3. The proposed KBFL-FM modification is contingent upon the grant of the KWTO-FM, Channel 267C, Springfield, MO application. See the KBFL-FM application for further details.

# KWTO-FM Reference and Application Site Channel Study

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REFERENCE                                     DISPLAY DATES
37 11 41.0 N.                               CLASS = C   Int = C   DATA 03-31-21
92 56 08.0 W.                               Current Spacings to 3rd Adj. SEARCH 03-31-21
----- Channel 267 - 101.3 MHz -----
Call      Channel  Location      Azi      Dist      FCC      Margin
      Lat.      Lng.      Ant      Power      HAAT
-----
KWTO-FM   LIC    267C    Springfield    MO    56.1      0.0      289.5    -289.5
37 11 41.2  92 56 07.6  CN      100.000 kW      454 M
Zimmer Midwest Communicati BLH20030124AEU

K265DR    LIC    265D    Bolivar      MO    317.6     61.7     93.5    -31.8
37 36 12.1  93 24 27.7  CN      0.010 kW      69 M
Radio Training Network, In BLFT20041020ACX

K268CP    CP      267D    Joplin      MO    262.7    143.9    150.5    -6.6
37 01 15.2  94 32 23.8  CN      0.099 kW      0 M
Michael Day Landis BPFT20190919ACY

KPLA      LIC-N 268C1  Columbia    MO    15.7     210.1    208.5     1.6
39 00 52.1  92 16 32.7  NCN     42.000 kW      324 M
Cumulus Licensing LLC BLH19980306KB

KFMD-FM   LIC    268C3  Greenland    AR    216.3    177.4    175.5     1.9
35 54 06.0  94 06 05.2  CN      5.500 kW      214 M
Rox Radio Group, LLC BLH20120430ACF

KCKP      LIC    265C3  Laurie      MO     9.7     103.0    95.5      7.5
38 06 32.1  92 44 11.7  CN      23.500 kW      103 M
Lake Area Educational Broa BLED20140805ACI

KLAB      LIC-N 266C3  Siloam Springs AR    233.0    183.4    175.5     7.9
36 11 28.3  94 33 59.8  NCN     7.700 kW      138 M
John Brown University BLED20140514AAT

KCTT-FM   LIC    269A    Yellville    AR    159.3    107.5    94.5     13.0
36 17 18.2  92 30 37.6  CN      6.000 kW      87 M
Mountain Lakes Broadcastin BLH19980716KC

KBHQ-LP   LIC    264L1  Harrison    AR    189.1    107.2    92.5     14.7
36 14 27.1  93 07 28.7  CN      0.036 kW      50 M
North Arkansas Performing BLL20181018AAW

K267CO    LIC    267D    Sedalia      MO    350.5    166.8    150.5     16.3
38 40 35.1  93 15 16.7  CN      0.250 kW      0 M
Benne Broadcasting Of Seda BLFT20180420ABQ

KZWV      LIC    270C2  Eldon      MO     14.2     124.3    104.5     19.8
38 16 46.1  92 35 06.7  CN      43.000 kW      161 M
Zimmer Radio Of Mid-Missou BLH20080910ACP

KARV-FM   LIC    267A    Ola          AR    185.5    245.4    225.5     19.9
34 59 34.3  93 11 35.6  CN      0.740 kW      277 M
Eab Of Russellville, LLC BLH19980112KD

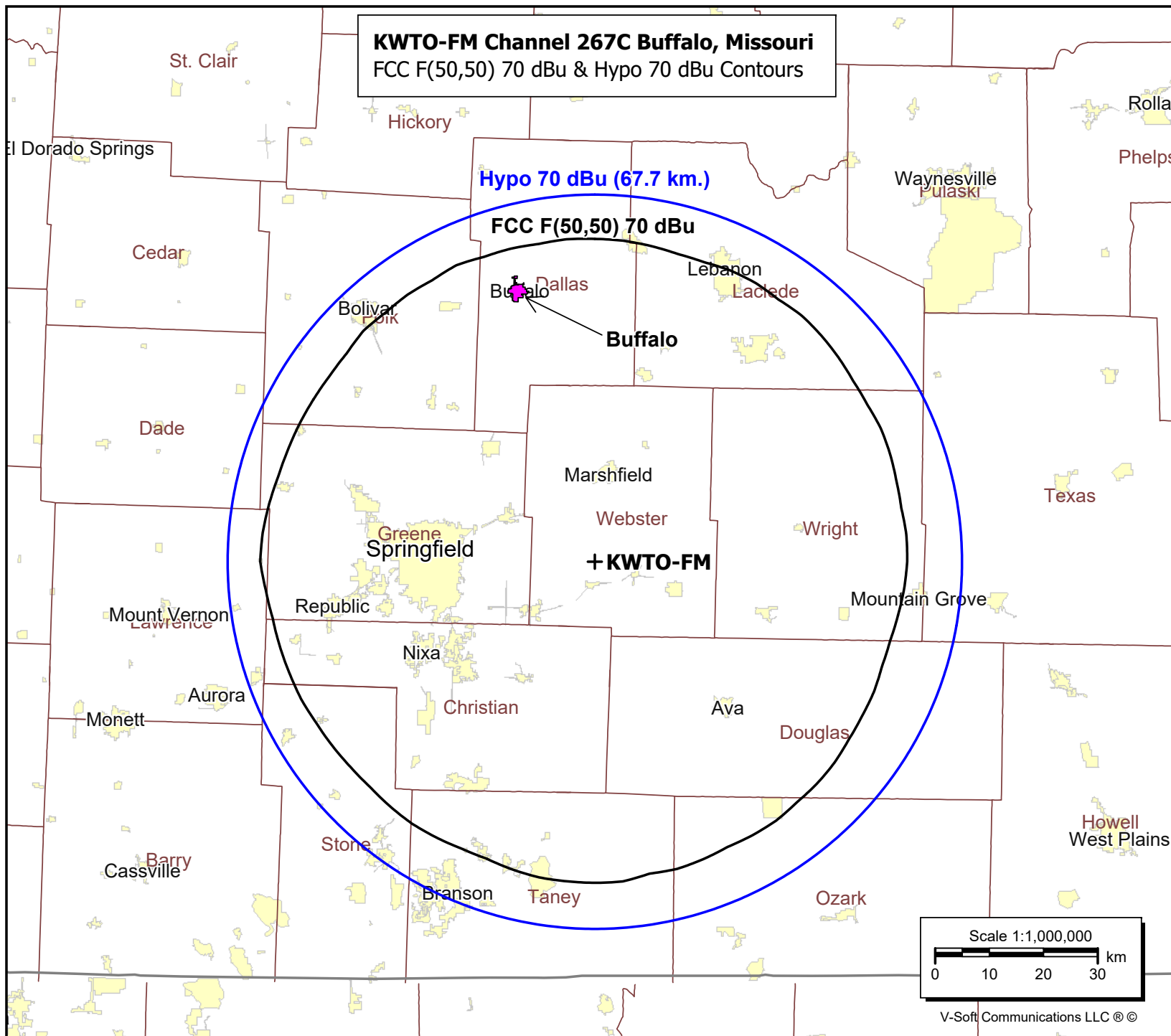
KMXF      LIC    270C2  Lowell      AR    228.1    124.9    104.5     20.4
36 26 24.5  93 58 25.1  CN      24.000 kW      217 M
Ihm Licenses, LLC BLH20130729AOB

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Call	Channel	Location	Azi	Dist	FCC	Margin
Lat.	Lng.	Ant	Power	HAAT		
KTTK	LIC 214C3	Lebanon	MO 18.0	51.1	30.5	20.7
37 37 58.2	92 45 22.6	CN	11.000 kW	145 M		
	Lebanon Educational Broadc		BLLED19970627KF			
KESA	LIC-Z 265A	Eureka Springs	AR 218.9	115.9	94.5	21.4
36 22 48.3	93 44 52.7	ZCN	2.000 kW	155 M		
	Northeast Oklahoma Broadca		BLH20100728ACI			
KHST	LIC-N 269C3	Lamar	MO 282.6	121.0	95.5	25.5
37 25 27.2	94 16 11.8	NCN	22.000 kW	100 M		
	My Town Media Inc		BLH20040917AHE			
KCFX	LIC-N 266C0	Harrisonville	MO 326.3	245.6	219.5	26.1
39 01 20.0	94 30 49.8	NCN	100.000 kW	335 M		
	Cmp Houston-Kc, LLC		BLH20030424AAS			
KHOM	LIC 265C2	Salem	AR 120.3	131.2	104.5	26.7
36 35 38.2	91 40 03.5	CN	50.000 kW	150 M		
	E-Communications, LLC		BLH20000926ABW			
KZWV	CP -N 270C2	Eldon	MO 19.1	138.3	104.5	33.8
38 22 13.7	92 24 54.7	NCN	28.000 kW	201 M		
	Zimmer Radio Of Mid-Missou		BPH20150805AAU			
K268CP	LIC 268D	Joplin	MO 262.7	143.9	103.5	40.4
37 01 15.2	94 32 23.8	CN	0.015 kW	120 M		
	Michael Day Landis		BLFT20150716AAL			
K264BZ	LIC 264D	Rolla	MO 49.8	136.3	95.5	40.8
37 58 44.1	91 44 52.5	CN	0.205 kW 0 M			
	Missouri River Christian B		BLFT20161020ACB			
KSMS-FM	LIC 213C2	Point Lookout	MO 202.4	75.9	34.5	41.4
36 33 44.2	93 15 35.7	CN	8.500 kW	235 M		
	Board Of Governors Of Miss		BLLED19971223KD			
KJTR-LP	LIC 269L1	Rolla	MO 50.6	134.4	92.5	42.0
37 57 19.1	91 45 03.5	CN	0.100 kW	-92 M		
	Rolla Chinese Christian As		BLL20031128ADR			
KIKS-FM	RSV 268C3	Iola	KS 290.9	221.3	175.5	45.8
37 52 51.1	95 17 09.9		0.000 kW	100 M		
	Iola Broadcasting, Inc.					
K267CC	LIC 267D	Vinita	OK 250.5	198.4	150.5	47.9
36 34 56.3	95 01 35.9	CN	0.250 kW 0 M			
	Kxoj, Inc.		BLFT20160907ABX			
K264DA	CP 264D	Bentonville	AR 231.7	143.5	95.5	48.0
36 23 18.0	94 11 34.9	CN	0.250 kW 0 M			
	Rex Radio Group, LLC		BNPFT20171215ABP			
KIKS-FM	LIC-N 268C3	Iola	KS 290.6	231.6	175.5	56.1
37 54 04.1	95 24 04.9	NCN	11.500 kW	88 M		
	Iola Broadcasting, Inc.		BLH20040525ABR			

**KWTO-FM**

Springfield, MO  
BLH20030124AEU  
Latitude: 37-11-41.20 N  
Longitude: 092-56-07.60 W  
ERP: 100.00 kW  
HAAT: 453.8 m  
Channel: 267  
Frequency: 101.3 MHz  
AMSL Height: 896.7 m  
Elevation: 471.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: FCC Model  
Loc. Variability: 50.0%  
Time Variability: 50.0%  
HAAT Mthd: FCC

**KWTO-FM Channel 267C Buffalo, Missouri**  
FCC F(50,50) 70 dBu & Hypo 70 dBu Contours

**Human Exposure to Radiofrequency Electromagnetic Field  
&  
Section 106 Compliance  
(Environmental)**

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. 1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. Zimmer Midwest Communications, Inc., licensee of KWTO-FM seeks to modify the license of KWTO-FM (Facility ID No. 63339) to be licensed to Buffalo, Missouri. KWTO-FM will continue to operate on Channel 267C (101.3 MHz). The transmitting site is an existing tower 438.4 meters in overall height. This tower is registered with the FCC's Antenna Structure Registration (ASR) No. 1235832. The tower is located at 37° 11' 41" N ~ 92° 56' 08" W (NAD 83). The existing transmit antenna is a side mounted ERI Model SHPX-8 eight bay full wave circularly polarized broadband antenna. KWTO-FM will operate with 100.0 kilowatts ERP at 425.7 meters above ground level and 453.8 meters HAAT. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of § 1.1306 of the FCC Rules.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The ERI antenna is included in the Antenna Types in the OET's updated FM Model Program under Type 3 Opposed "U" dipole. Using the EPA Type 3 selection, the maximum calculated signal density near the tower at two meters above ground level attributable to the proposed KWTO-FM facility is  $2.171 \mu\text{W}/\text{cm}^2$  at 114.8 meters, which is 1.086 percent of the general population/uncontrolled maximum permitted exposure limit.

This is well below the five percent threshold limit described in 1.1307(b) regarding sites with multiple emitters, which excludes applicant from responsibility for taking any corrective action in areas where the proposal's contribution is less than five percent.

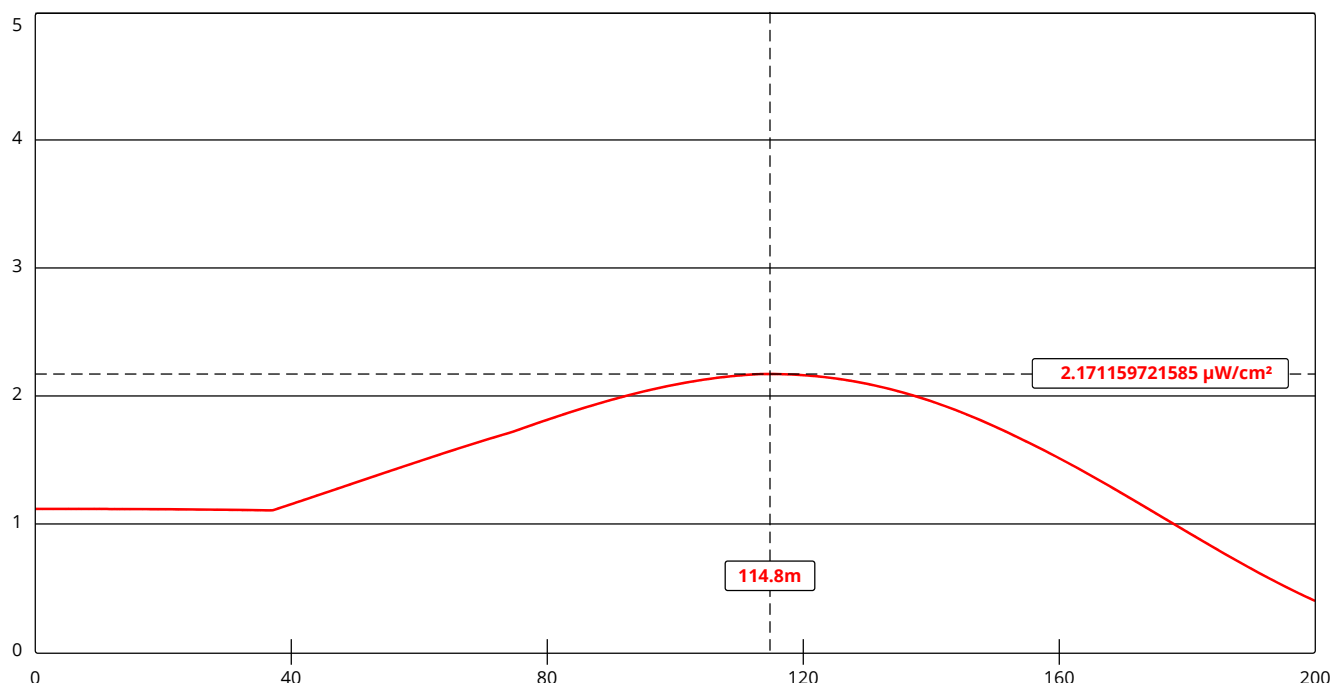
The applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.



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# FM Model

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data [published in 1985 by the EPA](#) (<http://nepis.epa.gov/Exe/ZyNET.exe/2000ED2W.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A\zyfiles\Index%20Data\81thru85\Tx\00000003\2000ED2W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h|-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p|f&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL>). [▼ Show More....](#)



[View Tabular Results +](#)

Channel Selection	Channel 267 (101.3 MHz) ▼		
<a href="#">Antenna Type +</a>	EPA Type 3: Opposed U Dipole ▼		
Height (m)	<input type="text" value="425.7"/>	Distance (m)	<input type="text" value="200"/>
ERP-H (W)	<input type="text" value="100000"/>	ERP-V (W)	<input type="text" value="100000"/>
Num of Elements	<input type="text" value="8"/>	Element Spacing (λ)	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	