Anderson Associates

Broadcast Engineering Consultants

EXTENSION REQUEST
WAUE EXPERIMENTAL AUTHORITY TO OPERATE WITH
-10 dBc UPPER SIDE BAND/ -14 dBc LOWER SIDE BAND ASYmMETRICAL DIGITAL POWER

WAUE on channel 262A (FCC facility #198812) requests experimental authority to utilize asymmetrical HD power levels in common amplification mode as proposed below:

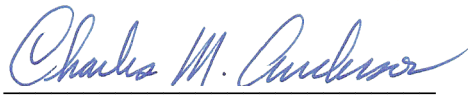
(1) Proposed digital power **upper side band = -10 dBc**/ 10% - 16 Watts ERP granted (authorization attached).
(2) Propsed digital power **lower side band = -14 dBc**/ 4% - 6.5 Watts ERP granted

(3) Digital TPO = 1.08 kW Analog + 0.108 kW Digital = 1,188 kW TPO

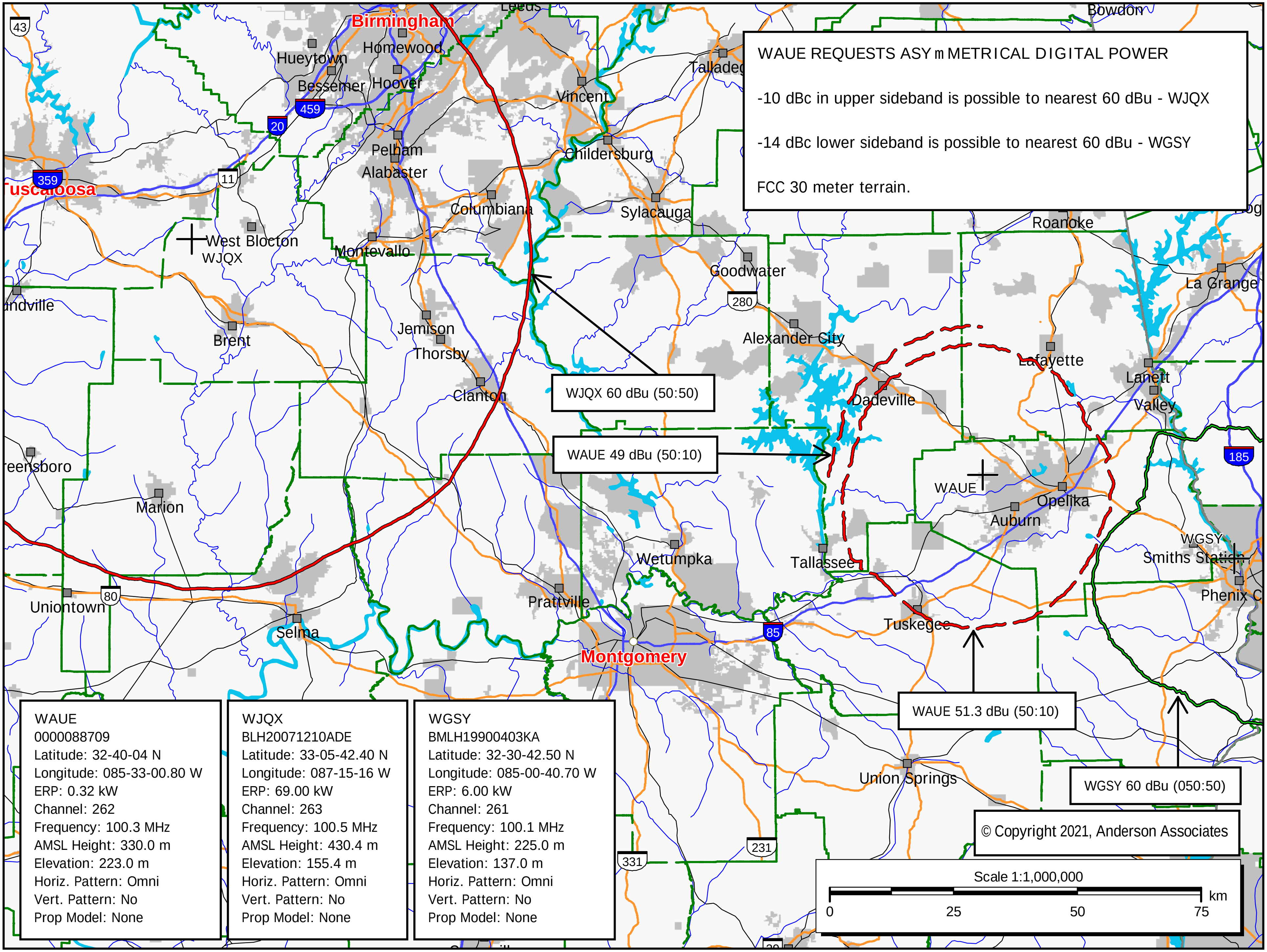
The undersign certifies that the requested digital power level complies with the requirements of MM Docket 99-325. An attached map shows that the WAUE 49.0 dBu (50:10) contour does not reach any 60 dBu of an upper first adjacent channel WJQX and that the 51.3 dBu (50:10) just clears the 60 dBu of the closest lower 1st adjacent channel WGSY (see attached contour exhibit).

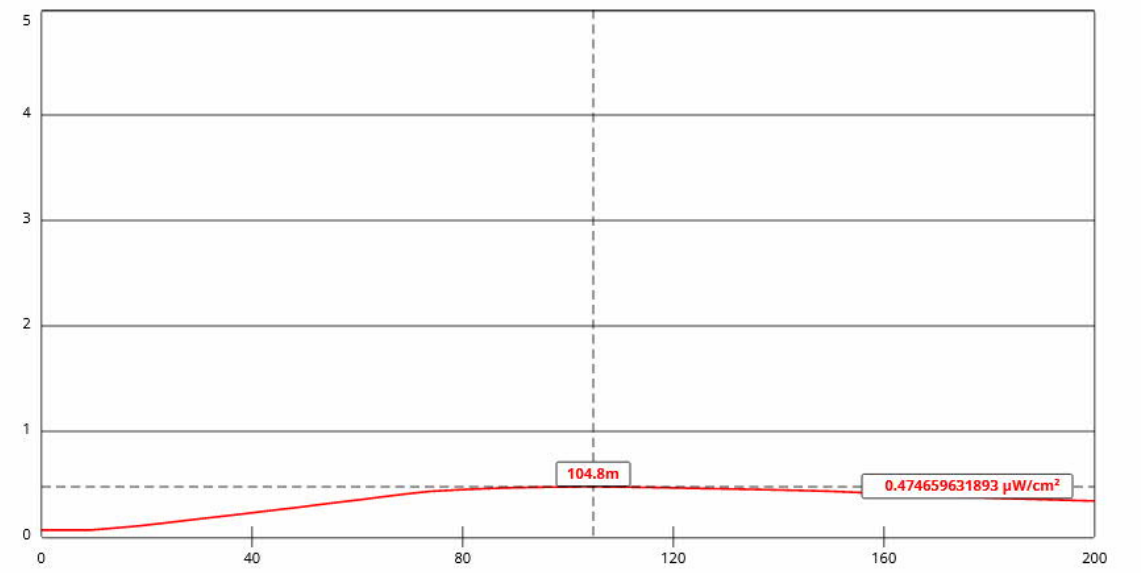
Therefore, WAUE may run the full 10% or -10 dBc in the upper side band and -14 dBc or 4% in the lower side band.

Proponent Analog F(50,10) Field Strength at Protected Analog 60 dBu F(50,50) Contour	Maximum Permissible FM Digital ERP
51.2 dBµ and above	-14 dBc
50.7 dBµ - 51.1 dBµ	-13 dBc
50.3 dBµ - 50.6 dBµ	-12 dBc
49.6 dBµ - 50.2 dBµ	-11 dBc
49.5 dBµ or less	-10 dBc



Charles M. Anderson 11-3-22
cmanderson43@yahoo.com
270-535-4432


WAUE REQUESTS ASYmMETRICAL DIGITAL POWER
-10 dBc in upper sideband is possible to nearest 60 dBu - WJQX
-14 dBc lower sideband is possible to nearest 60 dBu - WGSY
FCC 30 meter terrain.
WJQX 60 dBu (50:50)
WAUE 49 dBu (50:10)
WAUE 51.3 dBu (50:10)
WGSY 60 dBu (050:50)
WAUE
WJQX
WGSY
Birmingham
Tuscaloosa
Montgomery
Leeds
Bowdon
Hueytown
Homewood
Bessemer
Hoover
Vincent
Pelham
Alabaster
Childersburg
Columbiana
Sylacauga
West Blocton
Montevallo
Goodwater
Roanoke
La Grange
Brent
Jemison
Thorsby
Clanton
Alexander City
Lafayette
Lanett
Valley
Dadeville
Opelika
Auburn
Marion
Wetumpka
Tallassee
Smiths Station
Phenix C
Uniontown
Selma
Prattville
Tuskegee
Union Springs
43
459
20
359
11
280
185
80
85
231
331
WAUE
0000088709
Latitude: 32-40-04 N
Longitude: 085-33-00.80 W
ERP: 0.32 kW
Channel: 262
Frequency: 100.3 MHz
AMSL Height: 330.0 m
Elevation: 223.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None
WJQX
BLH20071210ADE
Latitude: 33-05-42.40 N
Longitude: 087-15-16 W
ERP: 69.00 kW
Channel: 263
Frequency: 100.5 MHz
AMSL Height: 430.4 m
Elevation: 155.4 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None
WGSY
BMLH19900403KA
Latitude: 32-30-42.50 N
Longitude: 085-00-40.70 W
ERP: 6.00 kW
Channel: 261
Frequency: 100.1 MHz
AMSL Height: 225.0 m
Elevation: 137.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None
© Copyright 2021, Anderson Associates
Scale 1:1,000,000
km
0
25
50
75



View Tabular Results +

Channel Selection	Channel 262 (100.3 MHz)		
Antenna Type +	EPA Type 3: Opposed U Dipole		
Height (m)	107	Distance (m)	200
ERP-H (W)	352	ERP-V (W)	352
Num of Elements	1	Element Spacing (λ)	1
Num of Points	500	Apply	

WAUE RF with maximum digital power = 352 Watts. RF contribution is 0.47 uW/cm2 or 0.235% of the maximum public exposure level.

Federal Communications Commission
Washington, D.C. 20554
December 3, 2021

MEDIA BUREAU
AUDIO DIVISION
APPLICATION STATUS: (202) 418-2730
HOME PAGE: www.fcc.gov/media/radio/audio-division

PROCESSING ENGINEER: Priscilla M. Lee
TELEPHONE: (202) 418-2957
GROUP FACSIMILE: (202) 418-1411
INTERNET ADDRESS: Priscilla.Lee@fcc.gov

Marble City Media LLC
P.O. Box 629
Sylacauga, AL 35150-0629

Re: WAUE(FM), Waverly, AL
Marble City Media LLC
Facility ID No. 198812
File No. 20211014AAE

Request for Experimental Authority

Dear Applicant:

The staff has under consideration the above-referenced October 14, 2021 request for experimental authority (Request) submitted on behalf of the Marble City Media LLC (MCM), licensee of a commercial FM Station WAUE(FM), Waverly, Alabama,[1] to permit WAUE to conduct testing of hybrid digital FM in-band on-channel (IBOC) operation with asymmetric power levels in the digital sidebands. The experimental authority is requested pursuant to Section 5.203 of the Commission's Rules.[2]

The Request states that MCM is seeking experimental authority to operate WAUE with lower sideband (LSB) digital effective radiated power (ERP) of -14 dBc[3] and upper sideband (USB) digital ERP of -10 dBc to assess IBOC coverage and signal penetration in the Station's service area.

[1] File Number 0000088709. WAUE(FM) is licensed to operate on channel 262 (100.3 Megahertz) using a directional antenna, 0.32 kilowatts (kW) effective radiated power (ERP), and 129 meters antenna radiation center height above average terrain at a transmitter site described by geographic coordinates 32º 40' 4" North Latitude, and 85º33' 0.8" West Longitude, referenced to 1983 North American Datum.

[2] 47 CFR § 5.203 (Section 5.203).

[3] Decibels relative to analog carrier.

Our review of the Request indicates that the proposed WAUE's experimental operation complies with the contour protection and other technical requirements of the Media Bureau's Order, adopted January 27, 2010, in Mass Media Docket No. 99-325,[4] and the Request meets the requirements for experimental operations set forth in Section 5.203. Accordingly, the Request is **HEREBY GRANTED**. WAUE(FM) may operate with digital ERP as follows:

Analog ERP:	0.32 kilowatts (kW), H&V[5]
USB Digital ERP:[6]	0.016 kW
LSB Digital ERP:	0.0064 kW

This experimental authority expires on **December 3, 2022**. This authority is specifically conditioned on the lack of objectionable interference. A report detailing the methodology employed and the results obtained must be submitted within 90 days following the conclusion of the experimental operation. Any request for extension of this experimental authority should be filed at least 30 days prior to the expiration date of the authority. Additionally, an extension request must include an interim report detailing the progress of the experimental operation as of the filing date of the request.

Sincerely,

Rodolfo F. Bonacci
Assistant Division Chief
Audio Division
Media Bureau

cc: Charles M. Anderson, email at cmanderson43@yahoo.com

[4] *See Digital Audio Broadcasting Systems And Their Impact on the Terrestrial Radio Broadcast Service*, Order, 25 FCC Rcd 1182 (MB 2010).

[5] All ERP values rounded in accordance with 47 CFR § 73.212(a).

[6] Digital ERP values shown are for MP1 service mode. The licensee must adjust the station's asymmetric total digital sideband ERP values in accordance with NRSC guideline "NRSC-G202-A, FM IBOC Total Digital Sideband Power for Various Configurations" (April 2016) if operating using a service mode other than MP1.