Approved by OMB (Office of Management and Budget) 3060-0386
July 2002

Federal Communications Commission

(REFERENCE COPY - Not for submission)

DTS Engineering STA Application

File Number: **0000068280** | Submit Date: **03/05/2019** | Call Sign: **WUNF-TV** | Facility ID: **69300** | FRN: **0001910066**
State: **North Carolina** | City: **ASHEVILLE**
Service: **DTS** | Purpose: **Engineering STA** | Status: **Granted** | Status Date: **04/17/2019** | Expiration Date:
Filing Status: **InActive**

General Information

Section	Question	Response

Fees, Waivers, and Exemptions

Section	Question	Response
Waivers	Does this filing request a waiver of the Commission's rule(s)?	No
	Total number of rule sections involved in this waiver request:	

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
University of North Carolina Applicant Doing Business As: University of North Carolina	PO Box 14900 Research Triangle Pa, NC 27709 United States	+1 (919) 549-7000	fcc_notice@unctv.org	Other

Authorization Holder Name

☐ Check box if the Authorization Holder name is being updated because of the sale (or transfer of control) of the Authorization(s) to another party and for which proper Commission approval has not been received or proper notification provided.

Contact Representatives (4)

Contact Name	Address	Phone	Email	Contact Type
Donald W Smith Davis , P.E. . University of North Carolina	10 UNC-TV Drive Research Triangle Pa, NC 27709 United States	+1 (919) 549-7025	dsmith@unctv.org	Technical Representative
Marcus W Trathen Hartzell Brooks, Pierce et al.	Stephen Hartzell 150 Fayetteville Street Suite 1700 Raleigh, NC 27601 United States	+1 (919) 839-0300	mtrathen@brookspierce.com	Legal Representative
Donald W Smith University of North Carolina	Donald Smith PO Box 14900 Research Triangle Park, NC 27709 United States	+1 (919) 549-7025	dsmith@unctv.org	Technical Representative
Marcus W Trathen Brooks, Pierce et al.	Marcus Trathen 150 Fayetteville Street Suite 1700 Raleigh, NC 27601 United States	+1 (919) 839-0300	mtrathen@brookspierce.com	Legal Representative

Channel and Facility Information

Section	Question	Response
Proposed Community of License	Facility ID	69300
	State	North Carolina
	City	ASHEVILLE
	DTS Channel	25
	Designated Market Area	GREENVILLE-SPARTANBURG-ASHEVILLE-ANDERSON
Facility Type	Facility Type	Noncommercial Educational
	Station Type	Main
Zone	Zone	2

DTS Reference Point

Section	Question	Response
Construction Permit File Number and Facility ID	File Number for Current Authorized Service Area:	
	Facility ID	
Coordinates (NAD83)	Latitude	- -
	Longitude	- -

Site 1: Antenna Location Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1035173
Coordinates (NAD83)	Latitude	35° 25' 32.0" N+
	Longitude	082° 45' 24.0" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	103.2 meters
	Support Structure Height	102.3 meters
	Ground Elevation (AMSL)	1742.8 meters
Antenna Data	Height of Radiation Center Above Ground Level	40 meters
	Height of Radiation Center Above Average Terrain	816 meters
	Height of Radiation Center Above Mean Sea Level	1782.8 meters
	Effective Radiated Power	125 kW

Site 1: Antenna Technical Data

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	Yes
	Antenna ID	108893
Antenna Manufacturer and Model	Manufacturer:	ERI
	Model	ATW12HS4-ETC170-25H
	Electrical Beam Tilt	1
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Elliptical
DTV and DTS: Elevation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	
	Rotation	0 degrees
	Uploaded file for elevation antenna (or radiation) pattern data	ERI-ATW12HS4-ETC170-25H.xml

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	0.94	**90**	0.9	**180**	0.94	**270**	0.25
10	0.99	**100**	0.9	**190**	0.85	**280**	0.23
20	1	**110**	0.91	**200**	0.73	**290**	0.21
30	0.99	**120**	0.92	**210**	0.59	**300**	0.22
40	0.96	**130**	0.94	**220**	0.44	**310**	0.3
50	0.94	**140**	0.96	**230**	0.3	**320**	0.44
60	0.92	**150**	0.99	**240**	0.22	**330**	0.59
70	0.91	**160**	1	**250**	0.21	**340**	0.73
80	0.9	**170**	0.99	**260**	0.23	**350**	0.85

Additional Azimuths

Degree	V_A

Site 2: Antenna Location Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	No
	ASR Number	
Coordinates (NAD83)	Latitude	35° 28' 25.3" N+
	Longitude	083° 19' 22.5" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	30 meters
	Support Structure Height	30 meters
	Ground Elevation (AMSL)	735 meters
Antenna Data	Height of Radiation Center Above Ground Level	19 meters
	Height of Radiation Center Above Average Terrain	-144.8 meters
	Height of Radiation Center Above Mean Sea Level	754 meters
	Effective Radiated Power	2.1 kW

Site 2: Antenna Technical Data

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	No
	Antenna ID	1004707
Antenna Manufacturer and Model	Manufacturer:	KAT
	Model	2x2 750 10325
	Electrical Beam Tilt	0.1
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Elliptical
DTV and DTS: Elevation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	
	Rotation	90 degrees
	Uploaded file for elevation antenna (or radiation) pattern data	

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	0.841	**90**	0.388	**180**	0.111	**270**	0.357
10	0.788	**100**	0.256	**190**	0.067	**280**	0.519
20	0.709	**110**	0.176	**200**	0.028	**290**	0.708
30	0.775	**120**	0.108	**210**	0.081	**300**	0.890
40	0.924	**130**	0.050	**220**	0.064	**310**	0.994
50	0.991	**140**	0.051	**230**	0.029	**320**	0.956
60	0.907	**150**	0.066	**240**	0.084	**330**	0.800
70	0.734	**160**	0.019	**250**	0.156	**340**	0.699
80	0.545	**170**	0.073	**260**	0.236	**350**	0.765

Additional Azimuths

Degree	V_A
313	1.000
1	0.843

Certification

Section	Question	Response
General Certification Statements	The Applicant 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 of the previous use of the same, whether by authorization or otherwise, and requests an Authorization in accordance with this application (See Section 304 of the Communications Act of 1934, as amended.).	
	The Applicant certifies that neither the Applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to §5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. §862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under §1.2002(c) of the rules, 47 CFR . See §1. 2002(b) of the rules, 47 CFR §1.2002(b), for the definition of "party to the application" as used in this certification §1.2002 (c). The Applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.	
Authorized Party to Sign	**FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID** Upon grant of this application, the Authorization Holder may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in automatic cancellation of the Authorization. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of Authorization requested in this application. WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503).	
	I certify that this application includes all required and relevant attachments.	Yes
	I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	**Thomas Brooks Skinner** **Brooks Skinner** *Associate General Manager and General Counsel* 03/05/2019

Attachments

File Name	Uploaded By	Attachment Type	Description
WUNF-TV DTS Site 2 Pre-Transition Channel Interim Operation STA Request.pdf	Applicant	All Purpose	WUNF-TV DTS Site #2 STA Request Narrative
WUNF-TV Interim DTS Site-2 Antenna STA request ENG 02-18-2019.pdf	Applicant	All Purpose	WUNF-TV STA request Site-2 interim antenna on pre-auction channel
ERI-ATW12HS4-ETC170-25H.xml	Applicant	Elevation Pattern	