



(REFERENCE COPY - Not for submission)

License To Cover for DTS Application

File Number: **0000163367** | Submit Date: **10/08/2021** | Call Sign: **WUNW** | Facility ID: **83822** | FRN: **0001910066** | State: **North Carolina** | City: **CANTON**
Service: **DTS** | Purpose: **License To Cover 0000113389** | Status: **Granted** | Status Date: **10/20/2021** | Expiration Date: **12/01/2028** | Filing Status: **Active**

General Information

Section	Question	Response
Attachments	Are attachments (other than associated schedules) being filed with this application?	No

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:	
	Are the frequencies or parameters requested in this filing covered by grandfathered privileges, previously approved by waiver, or functionally integrated with an existing station?	No

Applicant Information

Applicant Name, Type, and Contact Information

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

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
Joseph M. Davis , P.E. . <i>Consulting Engineer</i> Chesapeake RF Consultants, LLC	207 Old Dominion Road Yorktown, VA 23692 United States	+1 (703) 650-9600	Joseph.Davis@RF- consultants.com	Technical Representative
Stephen Hartzell Brooks, Pierce et al.	Stephen Hartzell 150 Fayetteville Street Suite 1700 Raleigh, NC 27601 United States	+1 (919) 839-0300	shartzell@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@pbsnc.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

Alien Ownership

Question	Response
1) Is the applicant a foreign government or the representative of any foreign government as specified in Section 310(a) of the Communications Act?	No
2) Is the applicant an alien or the representative of an alien? (Section 310(b)(1))	No
3) Is the applicant a corporation, or non-corporate entity, that is organized under the laws of any foreign government? (Section 310(b)(2))	No
4) Is the applicant an entity of which more than one-fifth of the capital stock, or other equity or voting interest, is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any entity organized under the laws of a foreign country? (Section 310(b)(3))	No
5) Is the applicant directly or indirectly controlled by any other entity of which more than one-fourth of the capital stock, or other equity or voting interest, is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any entity organized under the laws of a foreign country? (Section 310(b)(4))	No
6) Has the applicant received a declaratory ruling(s) under Section 310(b)(4) of the Communications Act?	No
6a) Enter the citation of the applicable declaratory ruling by DA/FCC number, FCC Record citation, release date, or any other identifying information.	
7) Has there been any change in the applicant's foreign ownership since issuance of the declaratory ruling(s) cited in response to Question 6?	
7a) Enter the File or Docket Number of the Petition for Declaratory Ruling that the applicant has filed for its foreign ownership in connection with this application pursuant to Section 310(b)(4) of the Communications Act. It is not necessary to file a request for a foreign ownership declaratory ruling if the applicant attaches a showing that the requested authorization(s) is exempt from the provisions of Section 310(b)(4).	
8) Does the applicant certify that it is in compliance with the terms and conditions of the foreign ownership declaratory ruling(s) cited in response to Question 6?	
9) In connection with this application, is the applicant filing a foreign ownership Petition for Declaratory Ruling pursuant to Section 310(b)(4) of the Communications Act?	No

Basic Qualifying Questions

Section	Question	Response
Revoked Application	Has the Applicant or any party to this application had any FCC station Authorization revoked or had any application for an initial, modification or renewal of FCC station Authorization denied by the Commission?	No
State or Federal Convictions	Has the Applicant or any party to this application, or any party directly or indirectly controlling the Applicant, ever been convicted of a felony by any state or federal court?	No

Channel and Facility Information

Section	Question	Response
Facility ID	83822	
State	North Carolina	
City	CANTON	
DTS Channel	27	
Facility Type	Facility Type	Noncommercial Educational
	Station Type	Main
Zone	Zone	2

Primary station proposed to be rebroadcast:

Facility Id	Call Sign	City	State
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DTS Reference Point

Section	Question	Response
Construction Permit File Number and Facility ID	File Number for Current Authorized Service Area:	BLEDT-20110921AAA
	Facility ID	83822
Coordinates (NAD83)	Latitude	35° 34' 07.0" N+
	Longitude	082° 54' 26.2" W-

**Site 1: Antenna
Location Data**

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1275765
Coordinates (NAD83)	Latitude	35° 34' 07.0" N+
	Longitude	082° 54' 26.2" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	59.0 meters
	Support Structure Height	59.0 meters
	Ground Elevation (AMSL)	1366.0 meters
Antenna Data	Height of Radiation Center Above Ground Level	55 meters
	Height of Radiation Center Above Average Terrain	504.9 meters
	Height of Radiation Center Above Mean Sea Level	1421.0 meters
	Effective Radiated Power	115 kW

**Site 1: Antenna
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	No
	Antenna ID	1007634
Antenna Manufacturer and Model	Manufacturer:	Dielectric
	Model	TFU-10DSB/VP-B-R
	Electrical Beam Tilt	3
	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	

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	0.675	90	1.000	180	0.675	270	0.676
10	0.721	100	0.995	190	0.639	280	0.672
20	0.772	110	0.979	200	0.616	290	0.660
30	0.824	120	0.952	210	0.608	300	0.644
40	0.873	130	0.917	220	0.613	310	0.627
50	0.917	140	0.873	230	0.627	320	0.613
60	0.952	150	0.824	240	0.644	330	0.608
70	0.979	160	0.772	250	0.660	340	0.616
80	0.995	170	0.721	260	0.672	350	0.639

Additional Azimuths

Degree	V _A
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Site 1: Operating Constants

Section	Question	Response
Transmitter and Transmission Line	Transmitter Power Output (TPO): <i>(average power at input to transmission line, after any filter attached to the transmitter, if used)</i>	10.43 dBk 11.03 kW
	Transmission Line Loss (LL):	0.3 dB
	Antenna Input Power (AIP):	10.13 dBk
	Max. Antenna Power Gain (AG)	10.48 dB
	Effective Radiated Power (ERP) <i>(Average Power)</i>	20.61 dBk 115 kW

Site 2: Antenna Location Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1271385
Coordinates (NAD83)	Latitude	35° 10' 36.4" N+
	Longitude	082° 40' 53.5" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	54.8 meters
	Support Structure Height	54.8 meters
	Ground Elevation (AMSL)	1146.9 meters
Antenna Data	Height of Radiation Center Above Ground Level	45.7 meters
	Height of Radiation Center Above Average Terrain	429.2 meters
	Height of Radiation Center Above Mean Sea Level	1192.6 meters
	Effective Radiated Power	0.90 kW

**Site 2: Antenna
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Non-Directional
	Do you have an Antenna ID?	
	Antenna ID	1002716
Antenna Manufacturer and Model	Manufacturer:	ERI
	Model	AL80-27-E
	Electrical Beam Tilt	1.75
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Circular
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?	
	Uploaded file for elevation antenna (or radiation) pattern data	

Site 2: Operating Constants

Section	Question	Response
Transmitter and Transmission Line	Transmitter Power Output (TPO): <i>(average power at input to transmission line, after any filter attached to the transmitter, if used)</i>	-7.30 dBk 0.186 kW
	Transmission Line Loss (LL):	0.79 dB
	Antenna Input Power (AIP):	-8.09 dBk
	Max. Antenna Power Gain (AG)	7.63 dB
	Effective Radiated Power (ERP) <i>(Average Power)</i>	-0.46 dBk 0.90 kW

Site 4: 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	36° 02' 00.4" N+
	Longitude	082° 12' 08.5" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	35 meters
	Support Structure Height	35 meters
	Ground Elevation (AMSL)	1243 meters
Antenna Data	Height of Radiation Center Above Ground Level	33 meters
	Height of Radiation Center Above Average Terrain	320.7 meters
	Height of Radiation Center Above Mean Sea Level	1276 meters
	Effective Radiated Power	0.94 kW

**Site 4: Antenna
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Non-Directional
	Do you have an Antenna ID?	
	Antenna ID	1002716
Antenna Manufacturer and Model	Manufacturer:	ERI
	Model	AL80-27-E
	Electrical Beam Tilt	1.75
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Circular
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?	
	Uploaded file for elevation antenna (or radiation) pattern data	

Site 4: Operating Constants

Section	Question	Response
Transmitter and Transmission Line	Transmitter Power Output (TPO): <i>(average power at input to transmission line, after any filter attached to the transmitter, if used)</i>	-8.24 dBk 0.15 kW
	Transmission Line Loss (LL):	0.67 dB
	Antenna Input Power (AIP):	-8.91 dBk
	Max. Antenna Power Gain (AG)	8.64 dB
	Effective Radiated Power (ERP) <i>(Average Power)</i>	-0.27 dBk 0.94 kW

Site 5: Antenna Location Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1299624
Coordinates (NAD83)	Latitude	35° 07' 56.7" N+
	Longitude	082° 59' 00.6" W-
	Structure Type	LTOWER-Lattice Tower
	Overall Structure Height	54.8 meters
	Support Structure Height	54.8 meters
	Ground Elevation (AMSL)	1453.8 meters
Antenna Data	Height of Radiation Center Above Ground Level	51.8 meters
	Height of Radiation Center Above Average Terrain	570.2 meters
	Height of Radiation Center Above Mean Sea Level	1505.6 meters
	Effective Radiated Power	0.88 kW

**Site 5: Antenna
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Non-Directional
	Do you have an Antenna ID?	
	Antenna ID	1002716
Antenna Manufacturer and Model	Manufacturer:	ERI
	Model	AL80-27-E
	Electrical Beam Tilt	1.75
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Circular
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?	
	Uploaded file for elevation antenna (or radiation) pattern data	

Site 5: Operating Constants

Section	Question	Response
Transmitter and Transmission Line	Transmitter Power Output (TPO): <i>(average power at input to transmission line, after any filter attached to the transmitter, if used)</i>	-7.57 dBk 0.175 kW
	Transmission Line Loss (LL):	0.62 dB
	Antenna Input Power (AIP):	-8.19 dBk
	Max. Antenna Power Gain (AG)	7.63 dB
	Effective Radiated Power (ERP) <i>(Average Power)</i>	-0.56 dBk 0.88 kW

Site 6: 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° 24' 47.0" N+
	Longitude	083° 30' 02.0" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	35 meters
	Support Structure Height	31 meters
	Ground Elevation (AMSL)	1007 meters
Antenna Data	Height of Radiation Center Above Ground Level	33 meters
	Height of Radiation Center Above Average Terrain	279.5 meters
	Height of Radiation Center Above Mean Sea Level	1040 meters
	Effective Radiated Power	0.94 kW

**Site 6: Antenna
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Non-Directional
	Do you have an Antenna ID?	
	Antenna ID	1002716
Antenna Manufacturer and Model	Manufacturer:	ERI
	Model	AL80-27-E
	Electrical Beam Tilt	1.75
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Circular
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?	
	Uploaded file for elevation antenna (or radiation) pattern data	

Site 6: Operating Constants

Section	Question	Response
Transmitter and Transmission Line	Transmitter Power Output (TPO): <i>(average power at input to transmission line, after any filter attached to the transmitter, if used)</i>	-7.28 dBk 0.187 kW
	Transmission Line Loss (LL):	.62 dB
	Antenna Input Power (AIP):	-7.90 dBk
	Max. Antenna Power Gain (AG)	7.63 dB
	Effective Radiated Power (ERP) <i>(Average Power)</i>	-0.27 dBk 0.94 kW

Site 7: 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° 18' 12.4" N+
	Longitude	083° 10' 39.5" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	35.4 meters
	Support Structure Height	35.4 meters
	Ground Elevation (AMSL)	777 meters
Antenna Data	Height of Radiation Center Above Ground Level	33 meters
	Height of Radiation Center Above Average Terrain	-146.0 meters
	Height of Radiation Center Above Mean Sea Level	810 meters
	Effective Radiated Power	0.94 kW

**Site 7: Antenna
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Non-Directional
	Do you have an Antenna ID?	
	Antenna ID	1002716
Antenna Manufacturer and Model	Manufacturer:	ERI
	Model	AL80-27-E
	Electrical Beam Tilt	1.75
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Circular
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?	
	Uploaded file for elevation antenna (or radiation) pattern data	

Site 7: Operating Constants

Section	Question	Response
Transmitter and Transmission Line	Transmitter Power Output (TPO): <i>(average power at input to transmission line, after any filter attached to the transmitter, if used)</i>	-7.30 dBk 0.186 kW
	Transmission Line Loss (LL):	.60 dB
	Antenna Input Power (AIP):	-7.9 dBk
	Max. Antenna Power Gain (AG)	7.63 dB
	Effective Radiated Power (ERP) <i>(Average Power)</i>	-0.27 dBk 0.94 kW

**Parties to the
Application (0)**

Information not provided.

Attributable Interest

Section	Question	Response
Equity and Financial Interests	Applicant certifies that equity and financial interests not set forth by the applicant parties are non-attributable.	
Other Authorizations	Does the applicant or any party to the application have an attributable interest in any other broadcast station(s).	

**License
Certifications**

Section	Question	Response
Main Studio Location	The main studio location complies with 47 C.F.R. Section 73.1125.	Yes
	Country	US
	PO Box	
	Address Line 1	10 UNC-TV Drive
	Address Line 2	
	City	Research Triangle Park
	State	NC
	Zip Code	27709
	Phone	+1 (919) 549-7000
Constructed Facility	The facility constructed as authorized in the underlying construction permit.	Yes
Special Operating Conditions	The facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit. An exhibit may be required. Review the underlying construction permit.	Yes
Transmitter	The transmitter complies with 47 C.F.R. Section 73.1660.	Yes
Changing Transmitter Power Output	Is this application being filed to authorize a change in transmitter power output caused by the replacement of an omnidirectional antenna with another omnidirectional antenna or an alteration of the transmission line system? See 47 C.F.R. Sections 73.1690(c)(1) and (c)(10).	No
Replacing a Directional Antenna	Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(3) to replace a directional antenna with another directional antenna?	No
	The proposed theoretical antenna pattern complies with 47 C.F.R. Section 73.1690(c)(3).	
Use a formerly licensed main facility as an auxiliary facility	Is this application being filed pursuant to 47 C.F.R. Section 73.1675(c)(1) to request authorization to use a formerly licensed main facility as an auxiliary facility and/or change the ERP of the proposed auxiliary facility?	No
	The proposed auxiliary facility complies with 47 C.F.R. Section 73.1675(a).	
	Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? (See 47 C.F.R. Section 1.1306)	

**Legal
Certifications**

Section	Question	Response
Obligations	Licensee/Permittee certifies that all terms, conditions, and obligations set forth in the underlying construction permit have been fully met.	Yes
	Licensee/Permittee certifies that, apart from changes already reported, no cause or circumstance has 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
Character Issues	Applicant certifies that neither applicant nor any party to the application has or had any interest in, or connection with: (a) any broadcast application in any proceeding where character issues were left in unresolved or were resolved adversely against the applicant or party to the application; or (b) any pending broadcast application in which character issues have been raised.	Yes
Adverse Findings	Has the Applicant or any party to this application had an adverse finding or an adverse final action taken by any court or administrative body in a civil or criminal proceeding brought under any law related to the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?	No

Certification

Section	Question	Response
<p>General Certification Statements</p>	<p>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.).</p>	
	<p>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.</p>	
<p>Authorized Party to Sign</p>	<p>FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID</p> <p>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.</p> <p>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).</p>	
	<p>I certify that this application includes all required and relevant attachments.</p>	<p>Yes</p>
	<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p>Shannon B. Henry <i>Chief Operating Officer</i></p> <p>10/08/2021</p>

Attachments

File Name	Uploaded By	Attachment Type	Description
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