

TECHNICAL SUMMARY  
APPLICATION FOR AUXILIARY OPERATION  
TV STATION WXCW  
NAPLES, FLORIDA  
CHANNEL 32 85 KW (MAX-DA) 388 m

1. The instant request is an application to convert the STA operation for WXCW at Naples, Florida (File No. 0000160291) to an auxiliary operation. The proposed WXCW auxiliary operation will operate on channel 32 from a different site than the WXCW main CP facility (File No. 0000145003). Specifically, a Dielectric model TFU-24WB horizontally polarized directional antenna will be side-mounted at a height of 387 meters above ground level on an existing tower with a main lobe orientation of 240 degrees true. There will be no change in the overall structure height of the existing tower (ASRN 1213076).

2. The proposed auxiliary operation has been designed such that there will be no extension of the predicted noise-limited service contour of the auxiliary facility beyond that of the main facility (see Figure 1 attached).

3. RFR Compliance: The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna will be located 387 meters above ground level. The total DTV ERP is 85 kW (horizontal polarization). A conservative vertical plane relative field value of 0.1 is presumed for the antenna's downward radiation (for angles below 60 degrees downward, see attached antenna data). The calculated power density at a point 2 meters above ground level is 0.192  $\mu\text{W}/\text{cm}^2$  which is 0.05% of the FCC's recommended limit of 387.3  $\mu\text{W}/\text{cm}^2$  for channel 32 for an uncontrolled environment. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

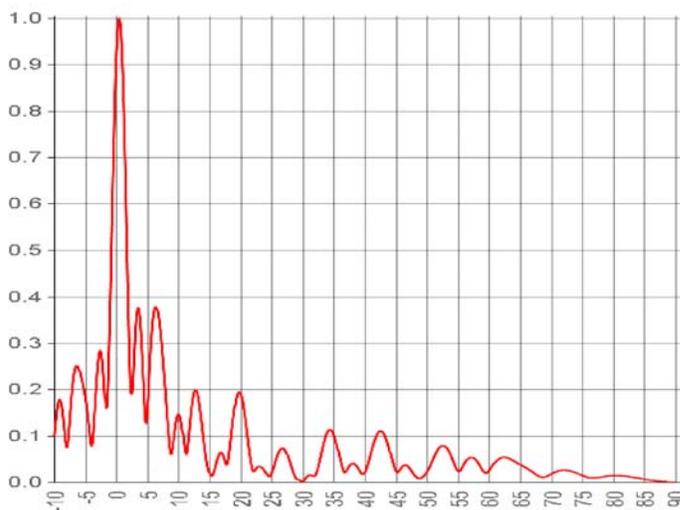
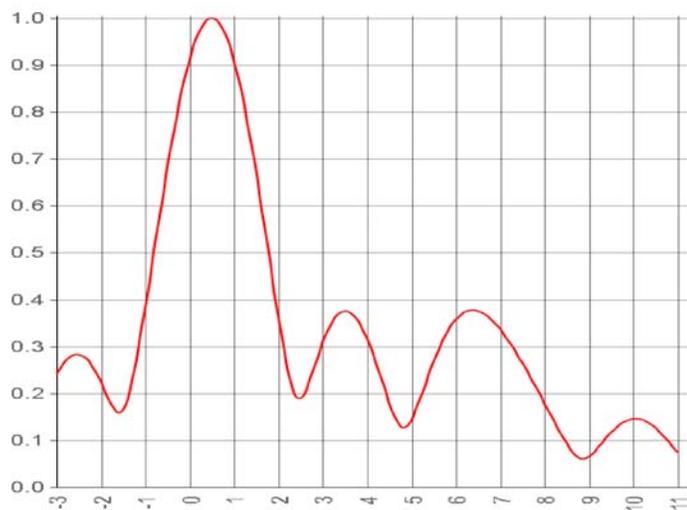
Access to the transmitting site is restricted and appropriately marked with RFR warning signs. Furthermore, as this is a multi-user site, a formal RFR protection protocol is in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measure will be taken to assure worker safety with respect to RFR exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.

## ELEVATION PATTERN

Exhibit No. **EL1**  
 Date **12 Sep 2018**  
 Call Letters **WINK**  
 Channel **50**  
 Antenna Type **TFU-24WB**  
 Location **FT Myers**  
 Customer **WINK**

RMS Gain at Main Lobe **21.6 (13.35 dB)**  
 RMS Gain at Horizontal **18.0 (12.56 dB)**  
**Calculated**

Beam Tilt **0.5 Degrees**  
 Drawing # **24I2161050**



Degrees below horizontal

Degrees below horizontal

Angle	Field								
-10	0.099	10	0.146	30	0.000	50	0.022	70	0.017
-9	0.176	11	0.074	31	0.014	51	0.049	71	0.023
-8	0.075	12	0.146	32	0.014	52	0.074	72	0.026
-7	0.208	13	0.194	33	0.062	53	0.076	73	0.024
-6	0.244	14	0.101	34	0.108	54	0.053	74	0.020
-5	0.184	15	0.020	35	0.103	55	0.024	75	0.014
-4	0.078	16	0.036	36	0.051	56	0.039	76	0.010
-3	0.242	17	0.063	37	0.023	57	0.053	77	0.009
-2	0.224	18	0.044	38	0.040	58	0.046	78	0.011
-1	0.382	19	0.154	39	0.029	59	0.025	79	0.013
0	0.913	20	0.191	40	0.021	60	0.024	80	0.014
1	0.909	21	0.112	41	0.064	61	0.043	81	0.014
2	0.360	22	0.025	42	0.103	62	0.053	82	0.013
3	0.309	23	0.034	43	0.106	63	0.052	83	0.011
4	0.317	24	0.021	44	0.069	64	0.046	84	0.009
5	0.145	25	0.019	45	0.024	65	0.038	85	0.006
6	0.358	26	0.059	46	0.033	66	0.030	86	0.004
7	0.337	27	0.072	47	0.034	67	0.022	87	0.002
8	0.178	28	0.041	48	0.016	68	0.013	88	0.001
9	0.066	29	0.007	49	0.009	69	0.011	89	0.000

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

