
TECHNICAL SUMMARY
REQUEST FOR SPECIAL TEMPORARY AUTHORITY (STA)
TV STATION WPCH-TV
ATLANTA, GEORGIA
CHANNEL 20 805 KW (MAX-DA) 300 m

1. The instant request is for Special Temporary Authority (STA) for WPCH-TV, Atlanta, Georgia, which is licensed for operation on pre-transition channel 20.¹ The WPCH-TV STA facility will operate on pre-transition channel 20 using a different tower location from the WPCH-TV main facility. The proposed WPCH antenna is side-mounted on the specified existing tower at a height of 317.8 meters above ground level. There will be no change in the overall structure height of the existing tower (ASRN 1206253).

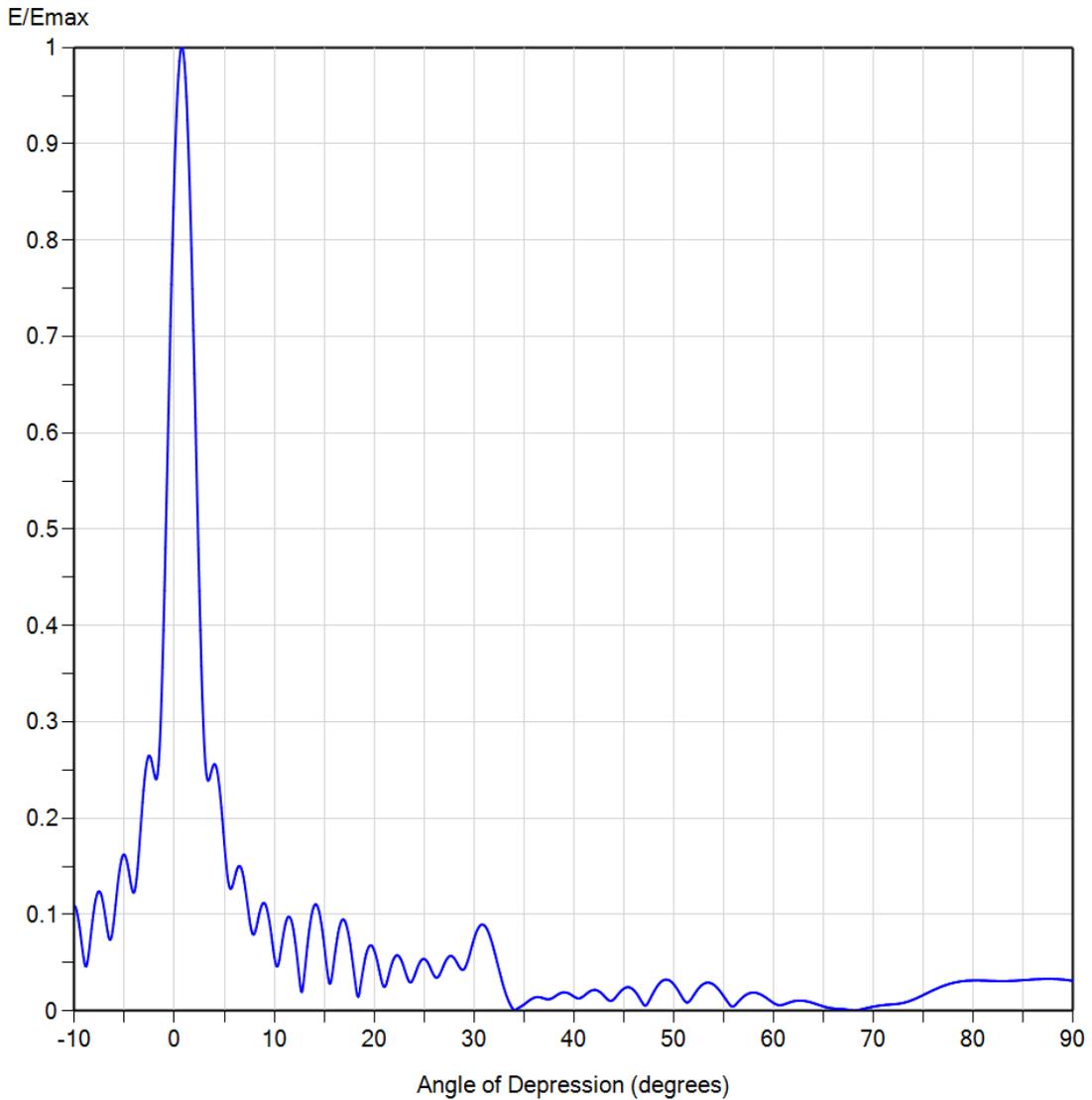
2. The proposed STA antenna system has been designed such that there will be no extension of the predicted noise-limited service contour of the STA facility beyond that of the main facility (see Figure 1 attached).

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 317.8 meters above ground level. The total DTV ERP is 805 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 2.7 uW/cm² which is 0.8% of the FCC's recommended limit of 339.3 uW/cm² for channel 20 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.

¹ See FCC File No. BLCDDT-20050204AAD.



Elevation Pattern



Model:	PEPL48U2221	Frequency:	509.00 MHz
Polarization:	<u>Horizontal</u>	Directivity (Main Lobe):	23.3 (13.67 dBd)
Location:	Atlanta Chester Avenue	Directivity (At Horizon):	17.6 (12.45 dBd)
Customer:	American Tower	Beam Tilt:	0.75 degrees
Date:	December 21, 2017	Azimuth Angle:	0 degrees

Calculated Vertical Radiation Pattern