

Proposal #: **DCA-9788-3**    Antenna Type: **TUD-S5B-14/70H-1-T**    Channel: **54 NTSC**  
 Call Letters: **WZDX**    Location: **Huntsville, AL**

Electrical Specifications		Value		Remarks
		Ratio	dB	
RMS Gain at Main Lobe over Halfwave Dipole	Hpol	30.0	14.77	
	Vpol			
RMS Gain at Horizontal over Halfwave Dipole	Hpol	8.1	9.08	
	Vpol			
Peak Directional Gain over Halfwave Dipole	Hpol	59.0	17.71	
	Vpol			
Peak Directional Gain at Horizontal over Halfwave Dipole	Hpol	15.9	12.01	
	Vpol			
Circularity      Directional		dB		
Axial Ratio		dB		
Beam Tilt		0.75 deg		
Peak TV Power	10% Aural	65 kW	18.13 dBk	+ 20 kW average DTV power
Antenna Input:	T/L	7-3/16 in	75.0 ohm	Type: EIA/DCA
Maximum Antenna Input VSWR		Pix +.5MHz	1.05 : 1	
		Color	1.08 : 1	
		Aural	1.10 : 1	
		Channel	1.10 : 1	
Patterns	Azimuth	TUD-S5B-719		
	Elevation	14U300075	14U300075-90	
Mechanical Specifications		Metric	English	Preliminary
Height with Lightning Protector	H4	17.7 m	58.1 ft	
Height Less Lightning Protector	H2	16.5 m	54.1 ft	
Height of Center of Radiation	H3	8.2 m	27.1 ft	Above base flange
Basic Wind Speed	V	112.7 km/h	70 mi/h	TIA/EIA-222-F.
Force Coeff. x Projected Area	CaAc	18.67 m <sup>2</sup>	201 ft <sup>2</sup>	Above base flange
Moment Arm	D1	10.1 m	33.2 ft	Above base flange
Force Coeff. x Projected Area	CaAc	m <sup>2</sup>	ft <sup>2</sup>	
Moment Arm	D3	m	ft	
Pole Bury Length	D2	m	ft	
Weight	W	9.4 t	20,800 lbs	
Radome				
Antenna designed in accordance with AISC specifications for design of structural steel for building as prescribed by TIA/EIA-222-F.				

NOTE:

Prepared By : **SRR**    Approved By : **RN**  
 Original Date : **25-Jan-02**    Revision: **3**    Rev. Date: **14-Feb-02**