



Proposal #: **DCA-10297**    Antenna Type: **TUA-O4-10/40H-1-S-R**    Channel: **32 DTV**  
 Call Letters: **WBUW-DT**    Location: **Janesville, WI**    **19 DTV**

Electrical Specifications		Value		Remarks	
		Ratio	dB		
RMS Gain at Main Lobe over Halfwave Dipole	Hpol	20.8	13.18	D32;	D19: 19.8 (12.97 dB)
	Vpol				
RMS Gain at Horizontal over Halfwave Dipole	Hpol	15.2	11.82	D32;	D19: 15.7 (11.96 dB)
	Vpol				
Peak Directional Gain over Halfwave Dipole	Hpol				
	Vpol				
Peak Directional Gain at Horizontal over Halfwave Dipole	Hpol				
	Vpol				
Circularity		+/- 2.0 dB		In free space	
Axial Ratio		dB			
Beam Tilt		0.75 deg		D32;	D19: 0.75 deg
Average Power	DTV	55 kW	17.40 dBk		
Antenna Input: T/L		6-1/8 in	75.0 ohm	Type:	EIA/DCA
Maximum Antenna Input VSWR		Channel 1.10 : 1		Note:	
				5 psig dry air or nitrogen recommended	
				D19: Channel: 1.10 : 1	
Patterns	Azimuth	TUA-O4-5810		D19: TUA-O4-5030	
	Elevation	10U208075	10U208075-90	D32	
		10U198075	10U198075-90	D19	
Mechanical Specifications		Metric	English		1/2" Radial ice
Height with Lightning Protector	H4	m	ft	Side mounted	
Height Less Lightning Protector	H2	12.0 m	39.3 ft		
Height of Center of Radiation	H3	6.1 m	20.0 ft		
Basic Wind Speed	V	136.8 km/h	85 mi/h	TIA/EIA-222-F.	
Force Coeff. x Projected Area	CaAc	11.15 m²	120.0 ft²	Excludes Mounts	125 ft²
Moment Arm	D1	m	ft		
Force Coeff. x Projected Area	CaAc	m²	ft²		
Moment Arm	D3	m	ft		
Pole Bury Length	D2	m	ft		
Weight	W	2.3 t	5,000 lbs	Excludes Mounts	6,000 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 :

EHM

Approved By :

AJS

Original Date :    21-Aug-03