

**W261BU HARTFORD, CT - MINOR MODIFICATION OF CONSTRUCTION PERMIT**  
**Minor Change Showing and 1st Adjacent Channel Study**

**Figure 1**

**Radio Data Services**



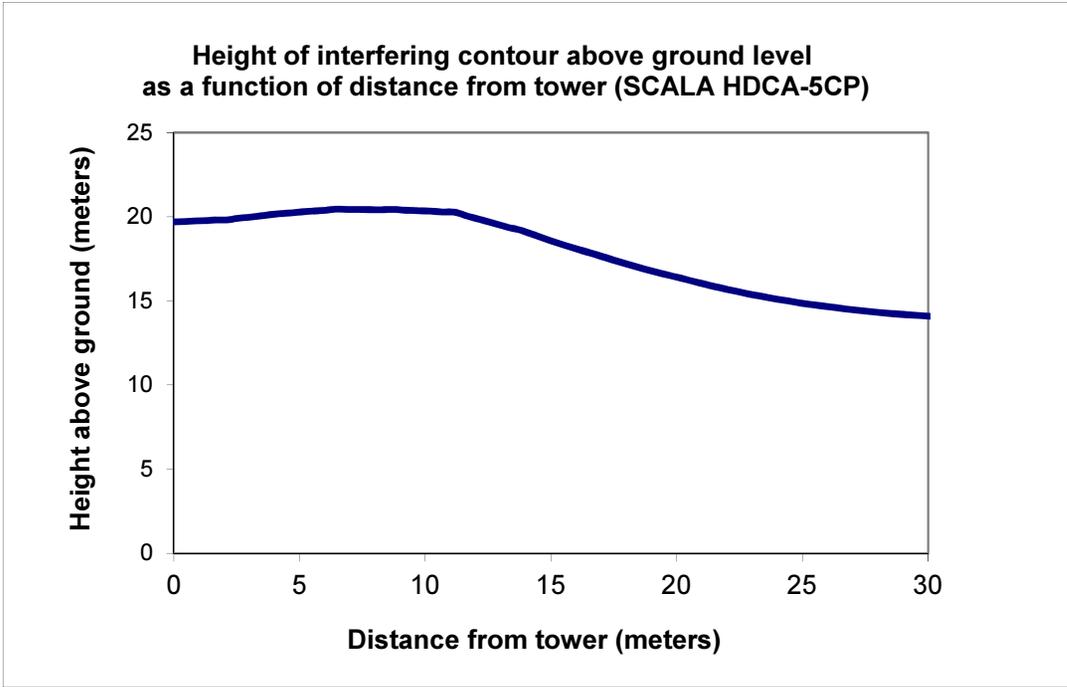
**Table 1**

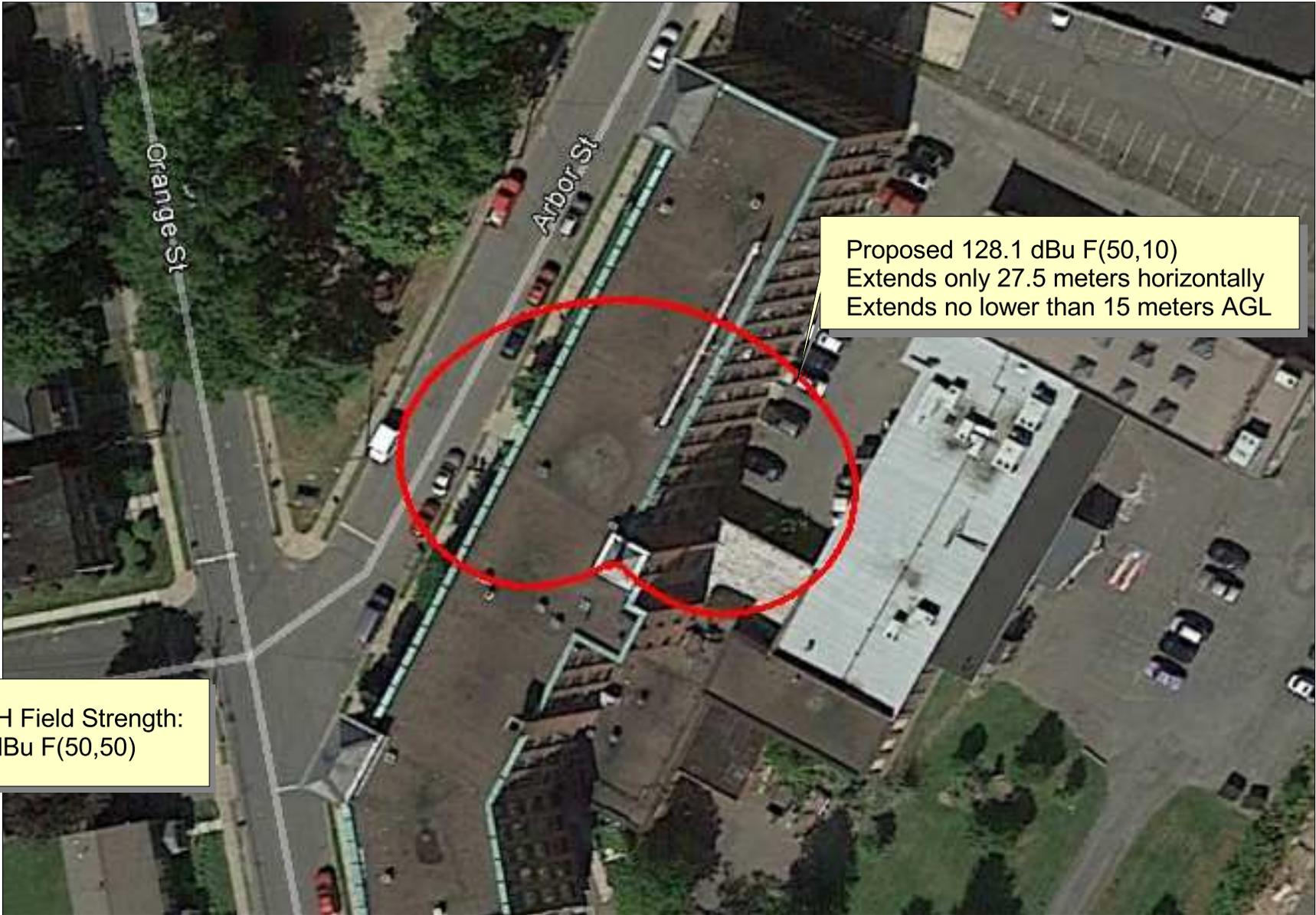
**W261BU Minor Modification of Construction Permit Channel Study**

Chan	Class	Call Letters	Type	Status	City	State	Country	Owner	Distance (km)	Bearing TO (deg)	Req. Dist. (km)	Clearance (km)	Field Strength (dBu)
258	D	W258AL	FX	LIC	CLINTON	CT	US	RED WOLF BROADCASTING CO	33.6	231.2	16.7	16.9	47.2
258	D	W258AC	FX	LIC	STORRS	CT	US	CONNECTICUT PUBLIC BROADC	37.3	80.5	6.5	30.7	27.0
259	L1	WLCQ-LP	FL	LIC	FEEDING HILLS	MA	US	LIGHTHOUSE CHRISTIAN CENTE	36.3	7.4	7.7	28.6	30.9
260	B	WEZN-FM	FM	LIC	BRIDGEPORT	CT	US	CONNOISSEUR MEDIA LICENSE	66.8	217.1	66.6	0.3	52.8
261	D	W261BU	FX	LIC	TALCOTTVILLE	CT	US	REVIVAL CHRISTIAN MINISTERIE	1.2	91.7	20.9	-19.6	77.5 (same as applicant)
261	D	W261BU	FX	CP	TALCOTTVILLE	CT	US	REVIVAL CHRISTIAN MINISTERIE	2.4	77.4	21.7	-19.3	66.3 (same as applicant)
261	L1	WLHZ-LP	FL	CP	SPRINGFIELD	MA	US	LA HORA MINISTERIO	43.5	1.7	24.4	19.1	23.8
261	L1	WCFV-LP	FL	CP	WILLIMANTIC	CT	US	CALVARY FELLOWSHIP OF WILLI	49.3	104.6	19.6	29.7	15.3
261	A	WWFX	FM	LIC	SOUTHBRIDGE	MA	US	RADIO LICENSE HOLDING CBC,	85.4	52.5	43.3	42.2	30.1
263	B	WRCH	FM	LIC	NEW BRITAIN	CT	US	CBS RADIO STATIONS INC.	12.4	240.1	69.1	-56.8	88.1 (See Note)
264	B	WHUD	FM	LIC	PEEKSKILL	NY	US	6 JOHNSON ROAD LICENSES, IN	109.6	245.1	62.6	47.1	35.3

**NOTE:**

(with respect to WRCH) 2nd adjacent WRCH (LIC) has a field strength of 88.1 dBu F(50,50) at the W261BU site. Therefore W261BU's interfering contour is the 128.1 dBu F(50,10) contour. W261BU's 128.1 dBu F(50,10) contour extends less than 27.5 meters distance from the tower. **Furthermore, using the manufacturer's antenna elevation pattern data, the interfering contour would remain above roof level of the 15 meter roof height building.** Therefore, the interfering contour does not contain any structures or population. Therefore this proposal is compliant with the allowance of Rule 74.1204(d).





0 4 8 Kilometers



The Kathrein-Scala HDCA-5CP/RM is a ruggedly built yagi antenna, designed for professional FM transmit and receive applications.

Like all Kathrein-Scala antennas, the HDCA-5CP/RM is made of the finest materials resulting in superior performance and long service life.

The HDCA-5CP/RM may be used stand-alone or in stacked arrays for higher gain, increased side-lobe suppression, or custom azimuth patterns.



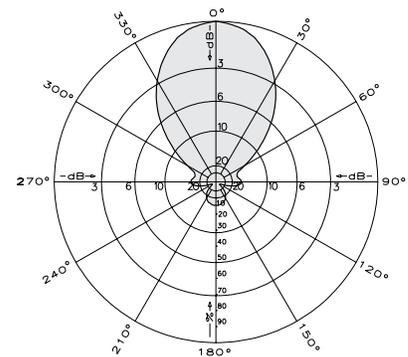
**Specifications:**

Frequency range	Any specified FM channel 88 to 108 MHz
Gain	4.5 dBd
Power gain	2.82
Impedance	50 or 75 ohms
VSWR	< 1.5:1
Polarization	Circular
Front-to-back ratio	>14 dB
Maximum input power	100 watts (75Ω N) 250 watts (50Ω N)
Azimuth pattern	62 degrees (half-power)
Elevation pattern	62 degrees (half-power)
Connector	50Ω N or 75Ω N
Weight	34.5 lb (15.6 kg)
Dimensions	74.1 x 54 x 51 inches maximum (1882 x 1372 x 1295 mm)
Wind load Front	at 100 mph (160 kph) 79 lbf (350 N) maximum
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	84 x 13 x 8 inches maximum (2134 x 330 x 203 mm)
Shipping weight	37.5 lb (15.6 kg)
Mounting	For masts of 2.375 inches (60 mm) OD.

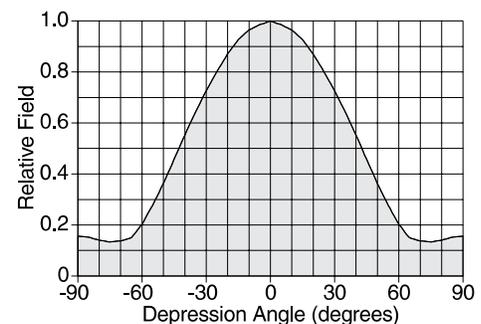
\* Mechanical design is based on environmental conditions as stipulated in TIA-222-G-2 (December 2009) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

**Order Information:**

Contact Kathrein-Scala Customer Service for detailed order information.



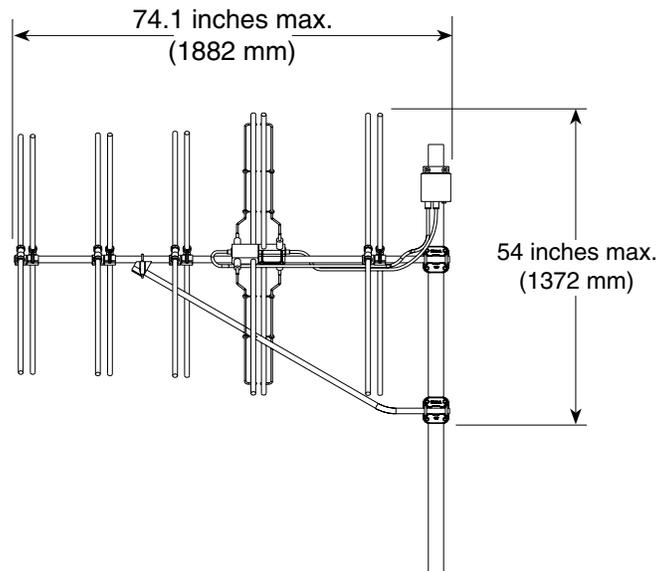
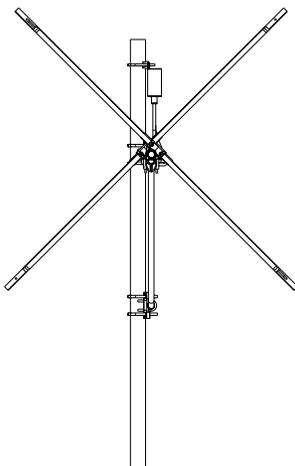
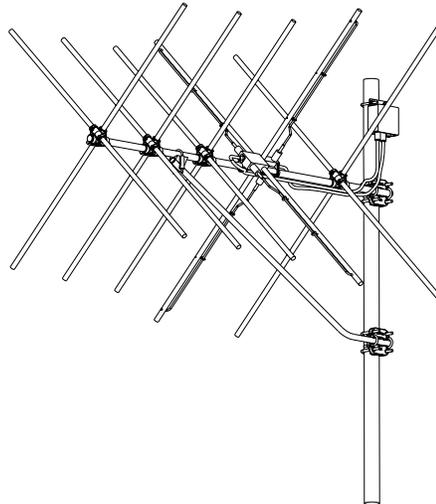
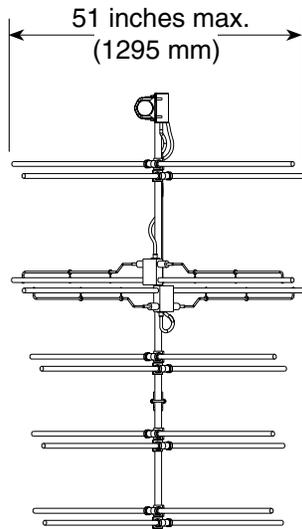
**Azimuth pattern**



**Elevation pattern**



10768-B



**Order Information:**

Contact Kathrein-Scala Customer Service for detailed order information.

All specifications are subject to change without notice. The latest specifications are available at [www.kathrein-scala.com](http://www.kathrein-scala.com).

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Email: [communications@kathrein.com](mailto:communications@kathrein.com) Internet: [www.kathrein-scala.com](http://www.kathrein-scala.com)

## Radiofrequency Electromagnetic Exposure Analysis

Source	Height AGL(m)	Antenna type	Bays	Horizontal ERP (kw)	Vertical ERP (kw)	<b>Power Density <math>\mu\text{W}/\text{cm}^2</math> at 2 meters AGL</b>				
						within 10 meters distance	% controlled environment limit (1000 $\mu\text{W}/\text{cm}^2$ )	Max. PD	% uncontrolled environment limit (200 $\mu\text{W}/\text{cm}^2$ )	Distance to maximum PD (m)
PROPOSED	24	(EPA dipole assumed)	1	0.099	0.099	8.2	0.8%	8.2	4.1%	6
						8.2	<b>0.8%</b>	8.2	<b>4.1%</b>	6

The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments).

Source: FM Model program