



United States of America
FEDERAL COMMUNICATIONS COMMISSION
AM BROADCAST STATION LICENSE

Authorizing Official:



Official Mailing Address:

KROL COMMUNICATIONS INC.
 103 NORTH WASHINGTON ST.
 OWOSSO MI 48867

Son Nguyen
 Supervisory Engineer
 Audio Division
 Media Bureau

Grant Date: April 06, 2020

This license expires 3:00 a.m.
 local time, October 01, 2020.

Facility Id: 60293

Call Sign: WMLM

License File Number: BMML-20190806ABI

License to cover BP-20190731ABK.

Subject to the provisions of the Communications Act of 1934, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this license, the licensee is hereby authorized to use and operate the radio transmitting apparatus herein described.

This license is issued on the licensee's representation that the statements contained in licensee's application are true and that the undertakings therein contained so far as they are consistent herewith, will be carried out in good faith. The licensee shall, during the term of this license, render such broadcasting service as will serve the public interest, convenience, or necessity to the full extent of the privileges herein conferred.

This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequency designated in the license beyond the term hereof, nor in any other manner than authorized herein. Neither the license nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This license is subject to the right of use or control by the Government of the United States conferred by Section 606 of the Communications Act of 1934.

Hours of Operation: Unlimited

Average hours of sunrise and sunset:
 Local Standard Time (Non-Advanced)

Jan.	8:15 AM	5:30 PM	Jul.	5:15 AM	8:15 PM
Feb.	7:45 AM	6:15 PM	Aug.	5:45 AM	7:45 PM
Mar.	6:45 AM	6:45 PM	Sep.	6:15 AM	6:45 PM
Apr.	6:00 AM	7:15 PM	Oct.	6:45 AM	6:00 PM
May	5:15 AM	8:00 PM	Nov.	7:30 AM	5:15 PM
Jun.	5:00 AM	8:15 PM	Dec.	8:00 AM	5:00 PM

Callsign: WMLM

License No.: BMML-20190806ABI

Name of Licensee: KROL COMMUNICATIONS INC.

Station Location: ST. LOUIS, MI

Frequency (kHz): 1520

Station Class: B

Antenna Coordinates:

Day

Latitude: N 43 Deg 21 Min 08 Sec

Longitude: W 84 Deg 36 Min 20 Sec

Night

Latitude: N 43 Deg 21 Min 08 Sec

Longitude: W 84 Deg 36 Min 20 Sec

Transmitter(s): Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.

Nominal Power (kW): Day: 1.0 Night: 1.0

Antenna Input Power (kW): Day: 1.08 Night: 1.08

Antenna Mode: Day: DA Night: DA

(DA=Directional Antenna, ND=Non-directional Antenna; CH=Critical Hours)

Current (amperes): Day: 4.65 Night: 4.65

Resistance (ohms): Day: 50 Night: 50

Antenna Registration Number(s):

Day:

Tower No.	ASRN	
1	None	60.88
2	None	60.88
4	None	60.88
5	None	60.88

Night:

Tower No.	ASRN	
1	None	60.88
2	None	60.88
3	None	60.88
4	None	60.88
5	None	60.88
6	None	60.88

DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Day: 294.59 Night: 305.8
 Standard RMS (mV/m/km): Day: 309.5
 Augmented RMS (mV/m/km): Night: 321.51
 Q Factor: Day: 10 Night: 10

Theoretical Parameters:

Day Directional Antenna:

Tower No.	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref Switch *	Height (Deg.)
1	1.0000	0.000	0.0000	0.000	0	110.0
2	0.8000	-91.360	90.0000	340.000	0	110.0
4	0.9000	0.000	188.0000	95.000	0	110.0
5	0.7200	-91.360	90.0000	340.000	1	110.0

* Tower Reference Switch

0 = Spacing and orientation from reference tower
 1 = Spacing and orientation from previous tower

Theoretical Parameters:

Night Directional Antenna:

Tower No.	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref Switch *	Height (Deg.)
1	1.0000	0.000	0.0000	0.000	0	110.0
2	1.8010	238.780	90.0000	340.000	0	110.0
3	1.0000	-242.440	180.0000	340.000	0	110.0
4	1.0000	0.000	188.0000	95.000	0	110.0
5	1.8010	238.780	169.7100	67.080	0	110.0
6	1.0000	-242.440	194.4100	40.160	0	110.0

* Tower Reference Switch

0 = Spacing and orientation from reference tower
 1 = Spacing and orientation from previous tower

Augmentation Parameters:

Aug No.	Central Azimuth (Deg. T)	Span (Deg.)	Radiation at Central Azimuth (mV/m @ 1 km)
1	78.0	35.0	24.14
2	95.0	20.0	16.09
3	110.0	30.0	16.09
4	140.0	40.0	19.31
5	165.0	35.0	25.75
6	180.0	40.0	16.09
7	205.0	30.0	48.28
8	230.0	40.0	32.19

Augmentation Parameters:

Aug No.	Central Azimuth (Deg. T)	Span (Deg.)	Radiation at Central Azimuth (mV/m @ 1 km)
9	258.0	10.0	16.09
10	292.0	30.0	24.14

Day Directional Operation:

Twr. No.	Phase (Deg.)	Antenna Monitor Sample Current Ratio
1	0	1
2	-72.8	0.65
3		
4	2.9	0.878
5	-70.8	0.655
6		

Night Directional Operation:

Twr. No.	Phase (Deg.)	Antenna Monitor Sample Current Ratio
1	110.1	0.599
2	-4.5	0.914
3	-111.6	0.489
4	113.4	0.628
5	0	1
6	-107.6	0.361

Antenna Monitor: POTOMAC INSTRUMENTS AM-19 (204)

Sampling System Approved Under Section 73.68 of the Rules.

Special operating conditions or restrictions:

- 1 The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.
- 2 Ground system consists of 120-162 equally spaced, buried, copper radials about the base of each tower. Intersecting radials are shortened and bonded to copper straps midway between elements.

*** END OF AUTHORIZATION ***