

Federal Communications Commission
Washington, DC 20554

Approved by OMB
3060-0110

RF Worksheet #1 – FM (including translators & boosters)

PLEASE COPY BEFORE USING. THE DETERMINATION OF COMPLIANCE MAY INVOLVE REPEATED CALCULATIONS. IF LOCATED ON A MULTIPLE FM USER TOWER, PLEASE COMPLETE RF WORKSHEET 1A BEFORE PROCEEDING.

EFFECTIVE RADIATION CENTER HEIGHT

Enter proposed "height of radiation center above ground" OR as listed in Line 1 6 m (1)
of Worksheet 1A.

Is antenna supporting structure located on the roof of a building? (check one) ☐ Yes ☒ No (2)

If Line 2 is "Yes" enter the building height measured at the base of the antenna supporting structure in Line 3

If Line 2 is "No" enter "0" in Line 3..... 0 m (3)

Subtract Line (3) from Line (1)..... 6 m (4)

Subtract the value 2.0 from Line (4)..... 4 m (5)

TOTAL EFFECTIVE RADIATED POWER

(If "beam tilt" is utilized, list maximum values)

List Effective Radiated Power in the Horizontal Plane..... 0 kW (6)

List Effective Radiated Power in the Vertical Plane..... .019 kW (7)

Add Lines (6) and (7) OR list value from Line 2 in Worksheet 1A..... .019 kW (8)

PERCENTAGE OF FCC RF LIMIT(S) FOR MAXIMUM PERMISSIBLE EXPOSURE

Multiply Line (8) by 33.41 0.635 (9)

Multiply the value listed in Line (5) by itself..... 16 (10)

Divide Line (9) by Line (10)03967 (11)

Multiply Line (11) by (100) 3.967 (12)

DETERMINATION OF COMPLIANCE WITH CONTROLLED/OCCUPATIONAL LIMIT

Does Line (12) exceed 100%..... ☐ Yes ☒ No (13)

IF YOU ANSWERED "YES" IN LINE (13), THE WORKSHEETS MAY NOT BE USED IN THIS CASE.*

IF YOU ANSWERED "NO" IN LINE (13), THEN THE SITE SHOULD COMPLY WITH THE FCC'S CONTROLLED/OCCUPATIONAL RF EXPOSURE LIMITS FOR GROUND LEVEL EXPOSURE

*In this case, you may need to prepare an Environmental Assessment. See Instructions for Section III-C FCC Form 301.

DETERMINATION OF COMPLIANCE WITH THE UNCONTROLLED/GENERAL POPULATION LIMIT

Does Line (12) exceed 20%..... ☐ Yes ☒ No (14)

COLUMN 1 CALL SIGN	COLUMN 2 HEIGHT OF ANTENNA RADIATION CENTER ABOVE GROUND LEVEL	COLUMN 3 TOATAL EFFECTIVE RADIATED POWER (HORIZONTAL AND VERTICAL)
K256AJ	9 meters	.005 kilowatts
K228DU	6 meters	.014 kilowatts
	meters	kilowatts
	meters	kilowatts
	meters	kilowatts
	meters	kilowatts

List the smallest value in Column 2..... 6 m (1)
 List the total of all values in Column 3..... .019 kW (2)

The value listed in line (1) above must be used in line (1) on Worksheet 1.
 The value listed in line (2) above must be used in line (8) on Worksheet 2.

Now complete worksheet 1 (except for lines 6 and 7).

RF WORKSHEET #2: AM

PLEASE COPY THIS WORKSHEET PRIOR TO USING. IN THE CASE OF A MULTIPLE TOWER ARRAY, A COPY IS NECESSARY FOR EACH TOWER LISTED IN RF WORKSHEET #2A. See AM Instruction b. to "How to Use RF worksheets" on page 5 of Appendix A.

SINGLE TOWER

Enter the transmitted power..... kW (1)
 Enter the distance from the tower to the nearest point of the fence or other
 restrictive barrier enclosing the tower..... m (2)

DETERMINATION OF WAVELENGTH

Method 1: Electrical Height

The tower height in wavelength may be obtained from the electrical height in degrees of the radiator.

Electrical height of the radiator..... degrees (3a)
 Divide Line 3(a) by 360 degrees..... wavelength (3b)

Method 2: Physical height

Alternatively, the wavelength may be obtained from the physical height of the radiator above the tower base and the frequency of the station.