

# Approved Antenna List

The MPRX-FM complies with FCC Part 15.247 and IC RSS-247 rules and has been designed to operate with the listed antennas presented in Table X. The effective maximum gain of each antenna is listed as well as the required attenuation to ensure that effective gain of greater than the allowed 6dB cannot occur. The required attenuation presented in Table X also includes any cable loss that is included with the system.

To reduce potential interference to other systems antenna, gain and type should be selected in a way that the eirp. (equivalent isotopically radiated power) is no more than the allowed 36dBm, preferably as low as possible that is needed for proper operation of the system.

<i>Manufacture</i>	<i>Part Number</i>	<i>Polarization</i>	<i>Gain (dBi)</i>	<i>Min Inline Loss Required (dB)</i>
Huber Suhner	1309.17.0111/85018546	Circular	5.50	0.00
Kathrein	52010087	Circular	11.00	5.00
Kathrein	52010249	Linear	11.00	5.00
Kathrein	52010092	Circular	-30.00	0.00
Laird	S9028P	Linear	8.00	2.00
Laird	S9025PR	Circular	5.50	0.00
MARS Antennas & RF Systems LTD.	MA-IS91-T2	Linear	10.50	4.50
Mobile Mark	PN6-915RCP-1C-WHT-6	RH Circular	6.00	0.00
Mobile Mark	PN6-915LCP-1C-WHT-6	LH Circular	6.00	0.00
Mobile Mark	PL8-915RCP-1Y-WHT-12	RH Circular	8.00	2.00
Mobile Mark	HD7-915RCP-BLK	RH Circular	7.00	1.00
MTI Wireless Edge LTD.	MT-263007/TRH/A/K	Circular	11.50	5.50
TransCore	AA3152 Universal Toll Antenna	Linear	14.00	8.00
TransCore	AA3237	Linear	6.00	0.00
TransCore	AA3110	Linear	12.50	6.50
TransCore	AA3153	Linear	10.50	4.50

TABLE X: Approved Antenna List

Table X has the antenna polarization, peak linear dBi (decibels over isotropic) gain figures, and the required loss required between the MPRX-FH and the antenna. This loss can include the cable loss for the length of the cable required to set up system. An Example Setup: Setting up an MPRX-FH with use with the AA3152 using a cable length of 115ft LMR-400 with a average attenuation of 3.94dB/100ft making the total cable loss 4.53dB. With a gain of the AA3152 of 14dB subtracting the cable loss (4.53dB) an external attenuator with a value of at least 3.47dB or greater would be required for this setup would be required to meet the FCC rule of the maximum eirp of 36dBm.