Futurecom Systems Group, ULC

DVRS
RF Safety Booklet

Document Revisions

Rev	Date	By	Notes & References
R10	June 30,2017	AJK/SN	Added APX 8500
R11	Nov 10, 2017	AJK/SN	Revised APX8500 Antenna Installation instructions
R12	Dec 21,2017	AJK/SN	Added FCC/ISED Updates
R13	Nov 20, 2018	AJK/SN	Revised FCC label, Added APX8500 HP configurations for DVR7/800, UHF, VHF.
R14	January 29, 2020	AJK/SN	Added APX 4500, APX 2500 configuration for DVR VHF
R15	February 5, 2020	AJK/SN	Added APX 4500, APX2500 configuration for DVR 700
R16	February 11, 2020	AJK/SN	Added APX 4500, APX2500 configuration for DVR800
R16.1	May 7, 2020	TB	DVR TX duty cycle changed to 50%

Product Safety and RF Energy Exposure Booklet for Digital Vehicular Repeater Systems (DVRS)

ATTENTION!

Before using this equipment, please read this booklet which contains important operating instructions for safe usage, RF energy control and compliance with FCC/ISED exposure limits.

Notes, Attentions, Important

Throughout this manual, you will see Notes, and Attentions, Important
Their meaning is as follows:

NOTE
A clarifying statement that expands on the text that follows.

IMPORTANT
An important statement that should be considered and / or implemented in order to achieve adequate equipment operation.

ATTENTION!
An instruction that must be followed in insure compliance with the appropriate standards or proper equipment operations

NOTE:
This equipment has been tested and found to comply with the limits for Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the installation manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

ATTENTION!
Changes or modifications not expressly approved by Futurecom Systems Group, ULC could void the User's authority to operate the equipment.

USA Users: Do not use the DVRS in the frequency band 406.0 – 406.1MHz.
This frequency band is reserved for distress beacons.

RF EXPOSURE

ATTENTION!
This radio is intended for use in occupational / controlled conditions, where users have full knowledge of their exposure and can exercise control over their exposure to meet FCC /ISED limits. This radio device is NOT authorized for general population, consumer, or any other use.

RADIO OPERATOR

It is the responsibility of the Repeater Operator to ensure that Maximum Permissible Exposure (MPE) limits are observed at all times during repeater transmissions. If this vehicular repeater is used in combination with a separate Mobile radio transmitter, the Repeater operator must ensure at all times that no person comes within the MPE distance from the vehicle body to ensure compliance with the FCC/ISED RF energy exposure limits for the general population.

The minimum lateral distance between all possible personnel and the body of the DVRS equipped vehicle must be as specified in Table 1 (Stand-alone DVR) and Table 2 (DVR interfaced to a Mobile Radio i.e. DVRS).
Failure to observe the MPE distance exclusion area around the antenna may expose persons within this area to RF energy above the FCC exposure limit for bystanders (general population).

Stand Alone DVR (20W) (up to 50% DVR Tx duty cycle)	Recommended Lateral Distance from Antenna
VHF	82cm (32.3 inches)
UHF 380-512MHz	75cm (29.5 inches)
700MHz	73cm (28.7 inches)
800MHz	76cm (29.9 inches)

Table 1 Recommended Lateral Distance - Stand Alone DVR

NOTE:
50% Tx duty cycle is defined as Push To Talk (PTT), 50% Talk - 50% Listen.

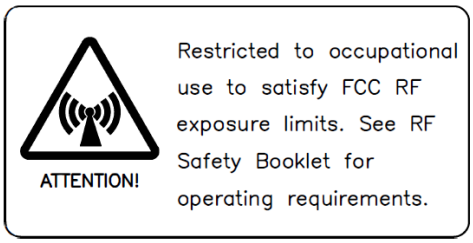
Mobile Radio Rated Power (up to 50% Tx duty cycle)	Recommended Lateral Distance from Vehicle Body
DVRS with <7 Watt **XTL** Mobile Radio	20 cm (7.9 inches)
DVRS with 7 to 15 Watt **XTL** Mobile Radio	30 cm (11.8 inches)
DVRS with 16 to 39 Watt **XTL** Mobile Radio	60 cm (23.6 inches)
DVRS with 40 to 100 Watt **XTL** Mobile Radio	90 cm (35.4 inches)
DVRS with up to 100 Watt **APX** Mobile Radio	90 cm (35.4 inches

Table 2 Recommended Lateral Distance – DVRS (DVR interfaced to a Mobile Radio)

IMPORTANT

The maximum allowed gain of the λ/4 omni-directional antenna for the Digital Vehicular Repeater (DVR) is Unity (0dBd).

RF Exposure Label



The RF Exposure Label should be affixed in the vehicle beside the mobile radio control head. The label should be in the direct view of the Repeater operator. The label is supplied with the Digital Vehicular Repeater(DVR).

FCC Label

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
1) This device may not cause harmful interference, and
2) This device must accept any interference received, including interference that may cause undesired operation.

Installation Requirements for Compliance with Radio Frequency (RF) Energy Exposure Safety Standards

ATTENTION!
To ensure compliance with RF Energy Safety Standards:

- Install only Futurecom / Motorola approved antennas and accessories and set conducted power into the DVR and Mobile antennas equal to or lower then the approved power levels – refer to **Table 3** (Stand Alone DVR) or **Table 4** (DVR interfaced to XTL Mobile Radio) or **Table 5** (DVR interfaced to APX Mobile Radio).

- Ensure the antenna installation is consistent with the DVR Antenna Installation instructions described in this document as well as with the Mobile Radio Antenna Installation Instructions published in the applicable Motorola Installation Manual.

- Ensure the **Product & RF Safety Booklets 8F083X03(FCC) or 8F083X05(ISED)** enclosed with the Mobile Radio and the DVR are available to the end user upon completion of the installation.

	ANTENNA			STAND ALONE DVR MODEL					
#	Kit #	Freq. Range [MHz]	Type	700 MHz (20W) (up to 50% Tx duty cycle)	800 MHz (20W) (up to 50% Tx duty cycle)	403-430 (20W) (up to 50% Tx duty cycle)	450-470 (20W) (up to 50% Tx duty cycle)	470-512 (20W) (up to 50% Tx duty cycle)	VHF (20W) (up to 50% Tx duty cycle)
1	HAF4016	764-870	¼ wave	20W	20W				
2	HAE6012A	380-433	¼ wave			20W			
3	HAE4003A	450-470	¼ wave				20W		
4	HAE4004	470-512	¼ wave					20W	
5	HAD4006	136-144	¼ wave						20W
6	HAD4007	144-150.8	¼ wave						20W
7	HAD4008	150.8-162	¼ wave						20W
8	HAD4009	162-174	¼ wave						20W

Table 3 Approved Stand-Alone DVR Combinations

NOTE:
Mobile RF conducted antenna power in the tables below denotes up to 50% Tx duty cycle.
DVR RF conducted antenna power in the tables below denotes up to 50% Tx duty cycle.

DVR: 7V083X06 (DQPMDVR8000P) **Freq Range:** 806-825, 851-870MHz, **Trunk Mounted Antenna:** HAF4016A, 1/4 wave, 0dBd
FCC ID: LO6-DVRS800 **Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3806	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd			
Max Power: DVR / Mobile	10W / 57W	10W / 57W	10W / 57W			
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd			
Max Power: DVR / Mobile	10W / 57W	10W / 57W	10W / 57W			
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W		
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W		
XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867	HAE6016A, 1/4 wave, 0dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4012A, 1/4 wave, 3.5dBd	HAE4013A, 1/4 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W
XTL5000 700/800MHz FCC ID: AZ492FT5823	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd		
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W		

Table 4A Approved 800 DVRS Configurations – XTL5000 / XTL2500

DVR: 7V083X05 (DQPMDVR7000P) **Freq Range:** 764-776, 794-806MHz, **Trunk Mounted Antenna:** HAF4016A, 1/4 wave, 0dBd
FCC ID: LO6-DVRS700 **Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3806	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd			
Max Power: DVR / Mobile	5W / 57W	5W / 57W	5W / 57W			
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	RAD4010A, 1/2 wave, 3dBd		
Max Power: DVR / Mobile	5W / 57W	5W / 57W	5W / 57W	20W / 120W *		
				* XTL5000 VHF (136-174MHz)		
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	5W / 120W	5W / 120W	5W / 120W	5W / 120W		
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	5W / 48W	5W / 48W	5W / 48W	5W / 48W		
XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867	HAE6016A, 1/4 wave, 0dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4012A, 1/4 wave, 3.5dBd	HAE4013A, 1/4 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 57W
XTL5000 700/800MHz FCC ID: AZ492FT5823	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd		
Max Power: DVR / Mobile	5W / 42W	5W / 42W	5W / 42W	5W / 42W		

Table 4B Approved 700 DVRS Configurations – XTL5000 / XTL2500

DVR: 7V083X04 (DQPMDVR6000P) **Freq Range:** 470-512MHz, **Trunk Mounted Antenna:** HAE4004A, 1/4 wave, 0dBd, HAE6016A, 1/4 wave, 0dBd
FCC ID: LO6-DVRSUHF **Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3806	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd			
Max Power: DVR / Mobile	10W / 57W	10W / 57W	10W / 57W			
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd			
Max Power: DVR / Mobile	10W / 57W	10W / 57W	10W / 57W			
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W		
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W		
XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867	HAE6016A, 1/4 wave, 0dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4012A, 1/4 wave, 3.5dBd	HAE4013A, 1/4 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W
XTL5000 700/800MHz FCC ID: AZ492FT5823	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd		
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W		

Table 4C Approved 470-512MHz DVRS Configurations – XTL5000 / XTL2500

DVR: 7V083X03 (DQPMDVR5000P) **Freq Range:** 450-470MHz, **Trunk Mounted Antenna:** HAE4003A, 1/4 wave, 0dBd, HAE6016A, 1/4 wave, 0dBd
FCC ID: LO6-DVRSUHF **Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3806	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd			
Max Power: DVR / Mobile	10W / 57W	10W / 57W	10W / 57W			
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd			
Max Power: DVR / Mobile	10W / 57W	10W / 57W	10W / 57W			
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W		
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W		
XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867	HAE6016A, 1/4 wave, 0dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4012A, 1/4 wave, 3.5dBd	HAE4013A, 1/4 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W
XTL5000 700/800MHz FCC ID: AZ492FT5823	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd		
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W		

Table 4D Approved 450-470MHz DVRS Configurations – XTL5000 / XTL2500

DVR: 7V083X07 (DQPMDVR4000P) **Freq Range:** 380-430MHz, **Trunk Mounted Antenna:** HAE6012A, 1/4 wave, 0dBd
FCC ID: LO6-DVRSUHF **Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3806	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd			
Max Power: DVR / Mobile	10W / 57W	10W / 57W	10W / 57W			
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd			
Max Power: DVR / Mobile	10W / 57W	10W / 57W	10W / 57W			
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W		
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W		
XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867	HAE6016A, 1/4 wave, 0dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4012A, 1/4 wave, 3.5dBd	HAE4013A, 1/4 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W
XTL5000 700/800MHz FCC ID: AZ492FT5823	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd		
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W		

Table 4E Approved 380-430MHz DVRS Configurations – XTL5000 / XTL2500

DVR: 7V083X01 (DQPMDVR3000P) **Freq Range:** 136-174MHz, **Trunk Mounted Antenna:** HAD4006A, 1/4 wave, 0dBd, HAD4007A, 1/4 wave, 0dBd,
FCC ID: LO6-DVRSVHF HAD4008A, 1/4 wave, 0dBd, HAD4009A, 1/4 wave, 0dBd
Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3806	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd			
Max Power: DVR / Mobile	6W / 57W	6W / 57W	6W / 57W			
XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd			
Max Power: DVR / Mobile	6W / 57W	6W / 57W	6W / 57W			
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	6W / 120W	6W / 120W	6W / 120W	6W / 120W		
XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd		
Max Power: DVR / Mobile	6W / 48W	6W / 48W	6W / 48W	6W / 48W		
XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867	HAE6016A, 1/4 wave, 0dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4012A, 1/4 wave, 3.5dBd	HAE4013A, 1/4 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	6W / 54W	6W / 54W	6W / 54W	6W / 54W	6W / 54W	6W / 54W
XTL5000 700/800MHz FCC ID: AZ492FT5823	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd		
Max Power: DVR / Mobile	6W / 42W	6W / 42W	6W / 42W	6W / 42W		

Table 4F Approved 136-174MHz DVRS Configurations – XTL5000 / XTL2500

DVR: 7V083X06 (DQPMDVR8000P)
FCC ID: LO6-DVRS800

Freq Range: 806-825, 851-870MHz, **Trunk Mounted Antenna:** HAF4016A, 1/4 wave, 0dBd

Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3824	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W					
APX6500/ APX7500 700/800MHz FCC ID: AZ492FT5858	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd				
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W				
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3821	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W					
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4894	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W				
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4897	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W				
APX6500/ APX7500 UHF R2 (450-520MHz) FCC ID: AZ492FT4896	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd				
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W				
APX7500 7/800 MHz 35W - VHF 50W FCC ID: AZ492FT7037	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W	10W / 60W	10W / 60W	10W / 60W	
APX7500 VHF 100W - 7/800 MHz 35W FCC ID: AZ492FT7035	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 42W	10W / 42W	10W / 42W	10W / 42W	
APX7500 UHF R1 40W - 7/800 MHz 35W FCC ID: AZ492FT7043	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 UHF R1 100W - 7/800 MHz 35W FCC ID: AZ492FT7048	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 UHF R2 45W 7/800 MHz 35W FCC ID: AZ492FT7044	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 VHF 50W - UHF R1 40W FCC ID: AZ492FT4895	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W	10W / 48W	10W / 48W	10W / 48W	10W / 48W	
APX7500 VHF 100W - UHF R1 100W FCC ID: AZ492FT4898	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	
APX7500 VHF 50W - UHF R2 45W FCC ID: AZ492FT7047	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	
APX6500 UHF R1 40W - UHF R2 45W FCC ID: AZ492FT4904	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W	10W / 54W	10W / 54W	10W / 54W	10W / 54W

Table 5A Approved 800 DVRS Configurations – APX6500 / APX7500

DVR: 7V083X05 (DQPMDVR7000P)
FCC ID: LO6-DVRS700

Freq Range: 764-776, 794-806MHz, **Trunk Mounted Antenna:** HAF4016A, 1/4 wave, 0dBd

Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3824	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	5W / 60W	5W / 60W	5W / 60W					
APX6500/ APX7500 700/800MHz FCC ID: AZ492FT5858	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd				
Max Power: DVR / Mobile	5W / 42W	5W / 42W	5W / 42W	5W / 42W				
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3821	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	5W / 120W	5W / 120W	5W / 120W					
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4894	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	5W / 48W	5W / 48W	5W / 48W	5W / 48W				
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4897	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	5W / 120W	5W / 120W	5W / 120W	5W / 120W				
APX6500/ APX7500 UHF R2 (450-520MHz) FCC ID: AZ492FT4896	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd				
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W				
APX7500 7/800 MHz 35W - VHF 50W FCC ID: AZ492FT7037	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	
Max Power: DVR / Mobile	5W / 42W	5W / 42W	5W / 42W	5W / 42W	5W / 60W	5W / 60W	5W / 60W	
APX7500 VHF 100W - 7/800 MHz 35W FCC ID: AZ492FT7035	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	
Max Power: DVR / Mobile	5W / 120W	5W / 120W	5W / 120W	5W / 42W	5W / 42W	5W / 42W	5W / 42W	
APX7500 UHF R1 40W - 7/800 MHz 35W FCC ID: AZ492FT7043	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	5W / 48W	5W / 48W	5W / 48W	5W / 48W	5W / 42W	5W / 42W	5W / 42W	5W / 42W
APX7500 UHF R1 100W - 7/800 MHz 35W FCC ID: AZ492FT7048	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 42W	5W / 42W	5W / 42W	5W / 42W
APX7500 UHF R2 45W 7/800 MHz 35W FCC ID: AZ492FT7044	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 42W	5W / 42W	5W / 42W	5W / 42W
APX7500 VHF 50W - UHF R1 40W FCC ID: AZ492FT4895	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	5W / 60W	5W / 60W	5W / 60W	5W / 48W	5W / 48W	5W / 48W	5W / 48W	
APX7500 VHF 100W - UHF R1 100W FCC ID: AZ492FT4898	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	
APX7500 VHF 50W - UHF R2 45W FCC ID: AZ492FT7047	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	
Max Power: DVR / Mobile	5W / 60W	5W / 60W	5W / 60W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	
APX6500 UHF R1 40W - UHF R2 45W FCC ID: AZ492FT4904	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	5W / 48W	5W / 48W	5W / 48W	5W / 48W	5W / 54W	5W / 54W	5W / 54W	5W / 54W

Table 5B Approved 700 DVRS Configurations – APX6500 / APX7500

DVR: 7V083X07
(DQPMDVR4000P)
FCC ID: LO6-DVRSUHF

Freq Range: 380-430MHz, **Trunk Mounted Antenna:** HAE6012A, 1/4 wave, 0dBd

Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3824	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W					
APX6500/ APX7500 700/800MHz FCC ID: AZ492FT5858	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd				
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W				
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3821	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W					
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4894	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W				
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4897	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W				
APX6500/ APX7500 UHF R2 (450-520MHz) FCC ID: AZ492FT4896	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd				
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W				
APX7500 7/800 MHz 35W - VHF 50W FCC ID: AZ492FT7037	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W	10W / 60W	10W / 60W	10W / 60W	
APX7500 VHF 100W - 7/800 MHz 35W FCC ID: AZ492FT7035	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 42W	10W / 42W	10W / 42W	10W / 42W	
APX7500 UHF R1 40W - 7/800 MHz 35W FCC ID: AZ492FT7043	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 UHF R1 100W - 7/800 MHz 35W FCC ID: AZ492FT7048	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 UHF R2 45W 7/800 MHz 35W FCC ID: AZ492FT7044	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 VHF 50W - UHF R1 40W FCC ID: AZ492FT4895	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W	10W / 48W	10W / 48W	10W / 48W	10W / 48W	
APX7500 VHF 100W - UHF R1 100W FCC ID: AZ492FT4898	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	
APX7500 VHF 50W - UHF R2 45W FCC ID: AZ492FT7047	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	
APX6500 UHF R1 40W - UHF R2 45W FCC ID: AZ492FT4904	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W	10W / 54W	10W / 54W	10W / 54W	10W / 54W

Table 5C Approved UHF R1 DVRS Configurations – APX6500 / APX7500

DVR: 7V083X03 (DQPMDVR5000P)
FCC ID: LO6-DVRSUHF

Freq Range: 450-470MHz, **Trunk Mounted Antenna:** HAE4003A, 1/4 wave, 0dBd; HAE6016A, 1/4 wave, 0 dBd (HAE6016A offered only with DVR/ XTL combination)
Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3824	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W					
APX6500/ APX7500 700/800MHz FCC ID: AZ492FT5858	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd				
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W				
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3821	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W					
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4894	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W				
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4897	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W				
APX6500/ APX7500 UHF R2 (450-520MHz) FCC ID: AZ492FT4896	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd				
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W				
APX7500 7/800 MHz 35W - VHF 50W FCC ID: AZ492FT7037	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W	10W / 60W	10W / 60W	10W / 60W	
APX7500 VHF 100W - 7/800 MHz 35W FCC ID: AZ492FT7035	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 42W	10W / 42W	10W / 42W	10W / 42W	
APX7500 UHF R1 40W - 7/800 MHz 35W FCC ID: AZ492FT7043	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 UHF R1 100W - 7/800 MHz 35W FCC ID: AZ492FT7048	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 UHF R2 45W 7/800 MHz 35W FCC ID: AZ492FT7044	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 VHF 50W - UHF R1 40W FCC ID: AZ492FT4895	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W	10W / 48W	10W / 48W	10W / 48W	10W / 48W	
APX7500 VHF 100W - UHF R1 100W FCC ID: AZ492FT4898	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	
APX7500 VHF 50W - UHF R2 45W FCC ID: AZ492FT7047	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	
APX6500 UHF R1 40W - UHF R2 45W FCC ID: AZ492FT4904	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W	10W / 54W	10W / 54W	10W / 54W	10W / 54W

Table 5D Approved UHF R2 DVRS Configurations – APX6500 / APX7500

DVR: 7V083X04
(DQPMDVR6000P)
FCC ID: LO6-DVRSUHF

Freq Range: 470-512MHz, **Trunk Mounted Antenna:** HAE4004A, 1/4 wave, 0dBd; HAE6016A, 1/4 wave, 0 dBd (HAE6016A offered only with DVR/ XTL combination)

Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3824	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W					
APX6500/ APX7500 700/800MHz FCC ID: AZ492FT5858	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd				
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W				
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3821	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W					
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4894	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W				
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4897	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W				
APX6500/ APX7500 UHF R2 (450-520MHz) FCC ID: AZ492FT4896	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd				
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W				
APX7500 7/800 MHz 35W - VHF 50W FCC ID: AZ492FT7037	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W	10W / 60W	10W / 60W	10W / 60W	
APX7500 VHF 100W - 7/800 MHz 35W FCC ID: AZ492FT7035	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 42W	10W / 42W	10W / 42W	10W / 42W	
APX7500 UHF R1 40W - 7/800 MHz 35W FCC ID: AZ492FT7043	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 UHF R1 100W - 7/800 MHz 35W FCC ID: AZ492FT7048	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 UHF R2 45W 7/800 MHz 35W FCC ID: AZ492FT7044	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 42W	10W / 42W	10W / 42W	10W / 42W
APX7500 VHF 50W - UHF R1 40W FCC ID: AZ492FT4895	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W	10W / 48W	10W / 48W	10W / 48W	10W / 48W	
APX7500 VHF 100W - UHF R1 100W FCC ID: AZ492FT4898	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	
APX7500 VHF 50W - UHF R2 45W FCC ID: AZ492FT7047	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	
APX6500 UHF R1 40W - UHF R2 45W FCC ID: AZ492FT4904	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 48W	10W / 48W	10W / 48W	10W / 48W	10W / 54W	10W / 54W	10W / 54W	10W / 54W

Table 5E Approved UHF R3 DVRS Configurations – APX6500 / APX7500

DVR: 7V083X01 (DQPMDVR3000P)
FCC ID: LO6-DVRSVHF

Freq Range: 136-174MHz, **Trunk Mounted Antenna:** HAD4006A, 1/4 wave, 0dBd, HAD4007A, 1/4 wave, 0dBd, HAD4008A, 1/4 wave, 0dBd, HAD4009A, 1/4 wave, 0dBd

Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3824	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	6W / 60W	6W / 60W	6W / 60W					
APX6500/ APX7500 700/800MHz FCC ID: AZ492FT5858	HAF4013A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd					
Max Power: DVR / Mobile	6W / 42W	6W / 42W	6W / 42W					
APX6500/ APX7500 VHF (136-174MHz) FCC ID: AZ492FT3821	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd					
Max Power: DVR / Mobile	6W / 120W	6W / 120W	6W / 120W					
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4894	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	6W / 48W	6W / 48W	6W / 48W	6W / 48W				
APX6500/ APX7500 UHF R1 (380-470MHz) FCC ID: AZ492FT4897	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd				
Max Power: DVR / Mobile	6W / 120W	6W / 120W	6W / 120W	6W / 120W				
APX6500/ APX7500 UHF R2 (450-520MHz) FCC ID: AZ492FT4896	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd				
Max Power: DVR / Mobile	6W / 54W	6W / 54W	6W / 54W	6W / 54W				
APX7500 7/800 MHz 35W - VHF 50W FCC ID: AZ492FT7037	HAF4013A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd		
Max Power: DVR / Mobile	6W / 42W	6W / 42W	6W / 42W	6W / 60W	6W / 60W	6W / 60W		
APX7500 VHF 100W - 7/800 MHz 35W FCC ID: AZ492FT7035	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd		
Max Power: DVR / Mobile	6W / 120W	6W / 120W	6W / 120W	6W / 42W	6W / 42W	6W / 42W		
APX7500 UHF R1 40W - 7/800 MHz 35W FCC ID: AZ492FT7043	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	
Max Power: DVR / Mobile	6W / 48W	6W / 48W	6W / 48W	6W / 48W	6W / 42W	6W / 42W	6W / 42W	
APX7500 UHF R1 100W - 7/800 MHz 35W FCC ID: AZ492FT7048	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAF4013A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	
Max Power: DVR / Mobile	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 42W	6W / 42W	6W / 42W	
APX7500 UHF R2 45W 7/800 MHz 35W FCC ID: AZ492FT7044	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd	
Max Power: DVR / Mobile	6W / 54W	6W / 54W	6W / 54W	6W / 54W	6W / 42W	6W / 42W	6W / 42W	
APX7500 VHF 50W - UHF R1 40W FCC ID: AZ492FT4895	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	6W / 60W	6W / 60W	6W / 60W	6W / 48W	6W / 48W	6W / 48W	6W / 48W	
APX7500 VHF 100W - UHF R1 100W FCC ID: AZ492FT4898	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	
Max Power: DVR / Mobile	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	
APX7500 VHF 50W - UHF R2 45W FCC ID: AZ492FT7047	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd	
Max Power: DVR / Mobile	6W / 60W	6W / 60W	6W / 60W	6W / 54W	6W / 54W	6W / 54W	6W / 54W	
APX6500 UHF R1 40W - UHF R2 45W FCC ID: AZ492FT4904	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE4004A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	6W / 48W	6W / 48W	6W / 48W	6W / 48W	6W / 54W	6W / 54W	6W / 54W	6W / 54W

Table 5F Approved VHF DVRS Configurations – APX6500 / APX7500

DVR: 7V083X06 (DQPMDVR8000P)
FCC ID: LO6-DVRS800

Freq Range: 806-825, 851-870MHz, **Trunk Mounted Antenna:** HAF4016A, 1/4 wave, 0dBd

Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd			
Max Power: DVR / Mobile	10W / 60W	10W / 60W	10W / 60W	10W / 60W	10W / 60W	10W / 60W	10W / 60W	10W / 60W	10W / 60W	10W / 60W			
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6010A, 1/2 wave, 3.5dBd	HAE6011A, 5/8 wave, 5dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd		
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W		
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE4015ARM, 5/8 wave, 5dBd	RAE40416ARB, 5/8 wave, 5dBd
Max Power: DVR / Mobile	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W	10W / 54W
APX8500 7/800MHz FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd								
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W	10W / 42W								

Table 6A Approved 800 DVRS Configurations – APX8500

DVR: 7V083X05 (DQPMDVR7000P)
FCC ID: LO6-DVRS700

Freq Range: 764-776, 794-806MHz, **Trunk Mounted Antenna:** HAF4016A, 1/4 wave, 0dBd

Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd			
Max Power: DVR / Mobile	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W			
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6010A, 1/2 wave, 3.5dBd	HAE6011A, 5/8 wave, 5dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd		
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W		
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE4015ARM, 5/8 wave, 5dBd	RAE40416ARB, 5/8 wave, 5dBd
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W
APX8500 7/800MHz FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd								
Max Power: DVR / Mobile	5W / 42W	5W / 42W	5W / 42W	5W / 42W	5W / 42W								

Table 6B Approved 700 DVRS Configurations – APX8500

DVR: 7V083X07 (DQPMDVR4000P)

FCC ID: LO6-DVRSUHF

Freq Range: 380-430MHz, **Trunk Mounted Antenna:** HAE6012A, 1/4 wave, 0dBd

Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd		
Max Power: DVR / Mobile	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W		
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6010A, 1/2 wave, 3.5dBd	HAE6011A, 5/8 wave, 5dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE40416ARB, 5/8 wave, 5dBd
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W
APX8500 7/800MHz FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd							
Max Power: DVR / Mobile	5W / 42W	5W / 42W	5W / 42W	5W / 42W	5W / 42W							

Table 6C Approved UHF R1 DVRS Configurations – APX8500

DVR: 7V083X03 (DQPMDVR5000P)

FCC ID: LO6-DVRSUHF

Freq Range: 450-470MHz, **Trunk Mounted Antenna:** HAE4003A, 1/4 wave, 0dBd; HAE6016A, 1/4 wave, 0 dBd (HAE6016A offered only with DVR/ XTL combination)

Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd		
Max Power: DVR / Mobile	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W		
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6010A, 1/2 wave, 3.5dBd	HAE6011A, 5/8 wave, 5dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE40416ARB, 5/8 wave, 5dBd
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W
APX8500 7/800MHz FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd							
Max Power: DVR / Mobile	5W / 42W	5W / 42W	5W / 42W	5W / 42W	5W / 42W							

Table 6D Approved UHF R2 DVRS Configurations – APX8500

DVR: 7V083X04
(DQPMDVR6000P)
FCC ID: LO6-DVRSUHF

Freq Range: 470-512MHz, **Trunk Mounted Antenna:** HAE4004A, 1/4 wave, 0dBd; HAE6016A, 1/4 wave, 0 dBd (HAE6016A offered only with DVR/ XTL combination)

Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd		
Max Power: DVR / Mobile	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W		
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6010A, 1/2 wave, 3.5dBd	HAE6011A, 5/8 wave, 5dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE40416ARB, 5/8 wave, 5dBd
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W
APX8500 7/800MHz FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd							
Max Power: DVR / Mobile	5W / 42W	5W / 42W	5W / 42W	5W / 42W	5W / 42W							

Table 6E Approved UHF R3 DVRS Configurations – APX8500

DVR: 7V083X01
(DQPMDVR3000P)
FCC ID: LO6-DVRSVHF

Freq Range: 136-174MHz, **Trunk Mounted Antenna:** HAD4006A, 1/4 wave, 0dBd, HAD4007A, 1/4 wave, 0dBd, HAD4008A, 1/4 wave, 0dBd, HAD4009A, 1/4 wave, 0dBd

Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

Mobile	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna	Roof Mounted Antenna
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd		
Max Power: DVR / Mobile	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W	5W / 60W		
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6010A, 1/2 wave, 3.5dBd	HAE6011A, 5/8 wave, 5dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE40416ARB, 5/8 wave, 5dBd
Max Power: DVR / Mobile	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W	5W / 54W
APX8500 7/800MHz FCC ID: AZ492FT7089	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd							
Max Power: DVR / Mobile	5W / 42W	5W / 42W	5W / 42W	5W / 42W	5W / 42W							

Table 6F Approved VHF DVRS Configurations – APX8500

DVR: 7V083X06 (DQPMDVR8000P)	**Freq Range:** 806-825, 851-870MHz, **Trunk Mounted Antenna:** HAF4016A, 1/4 wave, 0dBd												
FCC ID: LO6-DVRS800	**Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**												
Mobile	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd			
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W			
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6010A, 1/2 wave, 3.5dBd	HAE6011A, 5/8 wave, 5dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd		
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W		
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE4015ARM, 5/8 wave, 5dBd	RAE40416ARB, 5/8 wave, 5dBd
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W
APX8500 7/800MHz FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd								
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W	10W / 42W								

Table 7A Approved 800 DVRS Configurations- APX8500 HP

DVR: 7V083X05 (DQPMDVR7000P)	**Freq Range:** 764-776, 794-806MHz, **Trunk Mounted Antenna:** HAF4016A, 1/4 wave, 0dBd												
FCC ID: LO6-DVRS700	**Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**												
Mobile	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd			
Max Power: DVR / Mobile	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W			
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6010A, 1/2 wave, 3.5dBd	HAE6011A, 5/8 wave, 5dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd		
Max Power: DVR / Mobile	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W		
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE4015ARM, 5/8 wave, 5dBd	RAE40416ARB, 5/8 wave, 5dBd
Max Power: DVR / Mobile	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W	5W / 120W
APX8500 7/800MHz FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd								
Max Power: DVR / Mobile	5W / 42W	5W / 42W	5W / 42W	5W / 42W	5W / 42W								

Table 7B Approved 700 DVRS Configurations- APX8500 HP

DVR: 7V083X07 (DQPMDVR4000P)	**Freq Range:** 380-430MHz, **Trunk Mounted Antenna:** HAE6012A, 1/4 wave, 0dBd												
FCC ID: LO6-DVRSUHF	**Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**												
Mobile	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd			
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W			
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6010A, 1/2 wave, 3.5dBd	HAE6011A, 5/8 wave, 5dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd		
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W		
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE4015ARM, 5/8 wave, 5dBd	RAE40416ARB, 5/8 wave, 5dBd
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W
APX8500 7/800MHz FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd								
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W	10W / 42W								

Table 7C Approved UHF1 DVRS Configurations- APX8500 HP

DVR: 7V083X03 (DQPMDVR5000P)	**Freq Range:** 450-470MHz, **Trunk Mounted Antenna:** HAE4003A, 1/4 wave, 0dBd												
FCC ID: LO6-DVRSUHF	**Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**												
Mobile	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd			
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W			
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6010A, 1/2 wave, 3.5dBd	HAE6011A, 5/8 wave, 5dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd		
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W		
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE4015ARM, 5/8 wave, 5dBd	RAE40416ARB, 5/8 wave, 5dBd
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W
APX8500 7/800MHz FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd								
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W	10W / 42W								

Table 7D Approved UHF2 DVRS Configurations- APX8500 HP

DVR: 7V083X04 (DQPMDVR6000P)	**Freq Range:** 470-512MHz, **Trunk Mounted Antenna:** HAE4004A, 1/4 wave, 0dBd												
FCC ID: LO6-DVRSUHF	**Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**												
Mobile	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd			
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W			
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6010A, 1/2 wave, 3.5dBd	HAE6011A, 5/8 wave, 5dBd	HAE6012A, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd		
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W		
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE4015ARM, 5/8 wave, 5dBd	RAE40416ARB, 5/8 wave, 5dBd
Max Power: DVR / Mobile	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W	10W / 120W
APX8500 7/800MHz FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd								
Max Power: DVR / Mobile	10W / 42W	10W / 42W	10W / 42W	10W / 42W	10W / 42W								

Table 7E Approved UHF3 DVRS Configurations- APX8500 HP

DVR: 7V083X01 (DQPMDVR3000P)	**Freq Range:** 136-174MHz, **Trunk Mounted Antenna:** HAD4006A, 1/4 wave, 0dBd, HAD4007A, 1/4 wave, 0dBd, HAD4008A, 1/4 wave, 0dBd, HAD4009A, 1/4 wave, 0dBd												
FCC ID: LO6-DVRSVHF	**Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**												
Mobile	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**	**Roof Mounted Antenna**
APX8500 VHF (136-174MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAD4006A, 1/4 wave, 0dBd	HAD4007A, 1/4 wave, 0dBd	HAD4008A, 1/4 wave, 0dBd	HAD4009A, 1/4 wave, 0dBd	HAD4016A, 1/4 wave, 0dBd	HAD4017A, 1/4 wave, 0dBd	HAD4021A, 1/4 wave, 0dBd	HAD4022A, 5/8 wave, 3dBd	RAD4010ARB, 1/2 wave, 3dBd			
Max Power: DVR / Mobile	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W			
APX8500 UHF (380-470MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6011A, 5/8 wave, 5dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd				
Max Power: DVR / Mobile	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W				
APX8500 UHF (450-520MHz) FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAE6013A, 1/2 wave, 2dBd	HAE6031A, 1/2 wave, 2dBd	HAE4003A, 1/4 wave, 0dBd	HAE4011A, 1/2 wave, 3.5dBd	HAE6015A, 1/2 wave, 2dBd	HAE6016A, 1/4 wave, 0dBd	RAE4014ARB, 5/8 wave, 5dBd	HAE4004A, 1/4 wave, 0dBd	HAE4012A, 1/2 wave, 3.5dBd	HAE4013A, 1/2 wave, 3.5dBd	RAE40416ARB, 5/8 wave, 5dBd	
Max Power: DVR / Mobile	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	6W / 120W	
APX8500 7/800MHz FCC ID: AZ492FT7118	AN000131A01, 1/4 wave, 0dBd	HAF4013A, 1/4 wave, 3dBd	HAF4014A, 1/4 wave, 3dBd	HAF4016A, 1/4 wave, 0dBd	HAF4017A, 1/4 wave, 3dBd								
Max Power: DVR / Mobile	6W / 42W	6W / 42W	6W / 42W	6W / 42W	6W / 42W								

Table 7F Approved VHF DVRS Configurations- APX8500 HP

DVR: 7V083X01 (DQPMDVR3000P)	**Freq Range:** 136-174 MHz, **Trunk Mounted Antenna:** HAD4006A, 4007A,4008A,4009A, 1/4 wave, 0dBd
FCC ID # LO6-DVRSVHF	**Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**
Mobile	**Roof Mounted Antenna**
APX2500/ APX4500 VHF (136-162MHz) FCC ID: AZ492FT3826	HAD40016A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	6W / 60W
APX2500/ APX4500 VHF (146-174 MHz) FCC ID: AZ492FT3826	HAD4017A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	6W / 60W
APX2500/ APX4500 VHF (136-174 MHz) FCC ID: AZ492FT3826	HAD4021A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	6W / 60W
APX2500/ APX4500 VHF (136-144 MHz) FCC ID: AZ492FT3826	HAD4006A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	6W / 60W
APX2500/ APX4500 VHF (144-150.8 MHz) FCC ID: AZ492FT3826	HAD4007A 1/4 wave, 0dBd
Max Power: DVR / Mobile	6W / 60W
APX2500/ APX4500 VHF (150.8-162 MHz) FCC ID: AZ492FT3826	HAD4008A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	6W / 60W
APX2500/APX4500 VHF (162-174 MHz) FCC ID: AZ492FT3826	HAD4009A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	6W / 60W
APX2500/APX4500 VHF (132-174 MHz) FCC ID: AZ492FT3826	*HAD4022A 5/8 wave, 3dBd
Max Power: DVR / Mobile	6W / 60W
APX2500/APX4500 VHF (136-174 MHz) FCC ID: AZ492FT3826	*RAD4010ARB 1/2 wave,3dBd
Max Power: DVR / Mobile	6W / 60W

*Antenna length trimmed to frequency

Table 8 Approved VHF DVRS Configuration APX 2500 and APX 4500

DVR: 7V083X05 (DQPMDVR7000P)	**Freq Range:** 764-806 MHz, **Trunk Mounted Antenna: HAF4016A,**1/4 wave, 0dBd
FCC ID # LO6-DVRS700	**Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**
Mobile	**Roof Mounted Antenna**
APX2500/ APX4500 VHF (136-162MHz) FCC ID: AZ492FT3826	HAD40016A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	5W / 60W
APX2500/ APX4500 VHF (146-174 MHz) FCC ID: AZ492FT3826	HAD4017A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	5W / 60W
APX2500/ APX4500 VHF (136-174 MHz) FCC ID: AZ492FT3826	HAD4021A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	5W / 60W
APX2500/ APX4500 VHF (136-144 MHz) FCC ID: AZ492FT3826	HAD4006A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	5W / 60W
APX2500/ APX4500 VHF (144-150.8 MHz) FCC ID: AZ492FT3826	HAD4007A 1/4 wave, 0dBd
Max Power: DVR / Mobile	5W / 60W
APX2500/ APX4500 VHF (150.8-162 MHz) FCC ID: AZ492FT3826	HAD4008A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	5W / 60W
APX2500/APX4500 VHF (162-174 MHz) FCC ID: AZ492FT3826	HAD4009A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	5W / 60W
APX2500/APX4500 VHF (132-174 MHz) FCC ID: AZ492FT3826	*HAD4022A 5/8 wave, 3dBd
Max Power: DVR / Mobile	5W / 60W
APX2500/APX4500 VHF (136-174 MHz) FCC ID: AZ492FT3826	*RAD4010ARB 1/2 wave,3dBd
Max Power: DVR / Mobile	5W / 60W

*Antenna length trimmed to frequency

Table 9 Approved 700 DVRS Configuration APX 2500 and APX 4500

DVR: 7V083X06 (DQPMDVR8000P)	**Freq Range:** 806-869 MHz, **Trunk Mounted Antenna: HAF4016A,**1/4 wave, 0dBd
FCC ID # LO6-DVRS800	**Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)**
Mobile	**Roof Mounted Antenna**
APX2500/ APX4500 VHF (136-162MHz) FCC ID: AZ492FT3826	HAD40016A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 60W
APX2500/ APX4500 VHF (146-174 MHz) FCC ID: AZ492FT3826	HAD4017A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 60W
APX2500/ APX4500 VHF (136-174 MHz) FCC ID: AZ492FT3826	HAD4021A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 60W
APX2500/ APX4500 VHF (136-144 MHz) FCC ID: AZ492FT3826	HAD4006A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 60W
APX2500/ APX4500 VHF (144-150.8 MHz) FCC ID: AZ492FT3826	HAD4007A 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 60W
APX2500/ APX4500 VHF (150.8-162 MHz) FCC ID: AZ492FT3826	HAD4008A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 60W
APX2500/APX4500 VHF (162-174 MHz) FCC ID: AZ492FT3826	HAD4009A, 1/4 wave, 0dBd
Max Power: DVR / Mobile	10W / 60W
APX2500/APX4500 VHF (132-174 MHz) FCC ID: AZ492FT3826	*HAD4022A 5/8 wave, 3dBd
Max Power: DVR / Mobile	10W / 60W
APX2500/APX4500 VHF (136-174 MHz) FCC ID: AZ492FT3826	*RAD4010ARB 1/2 wave,3dBd
Max Power: DVR / Mobile	10W / 60W

*Antenna length trimmed to frequency

Table 10 Approved 800 DVRS Configuration APX 2500 and APX 4500

Antenna Installation Instructions

IMPORTANT: To assure optimum performance and compliance with FCC/ISED RF Energy Exposure regulations, these antenna installation guidelines and instructions are limited to metal-body vehicles with appropriate ground planes and take into account the potential exposure of back seat passengers and bystanders outside the vehicle.

Selecting an Antenna Site/Location on a Metal Body Vehicle

1. **External installation**

Check the requirements of the antenna supplier and install the vehicle antenna external to a metal body vehicle in accordance with those requirements.

2. **Roof top**

XTL mobile radio: For optimum performance and compliance with RF Energy Safety standards, mount the mobile radio antenna in the center area of the roof.

APX mobile radio: For optimum performance and compliance with RF Energy Safety standards, mount the mobile radio antennas (dual and single band) at 45cm (17.7 inches) from the center as shown in the figure below. NOTE: For single band applications (one antenna), choose either side for the installation (not the center).

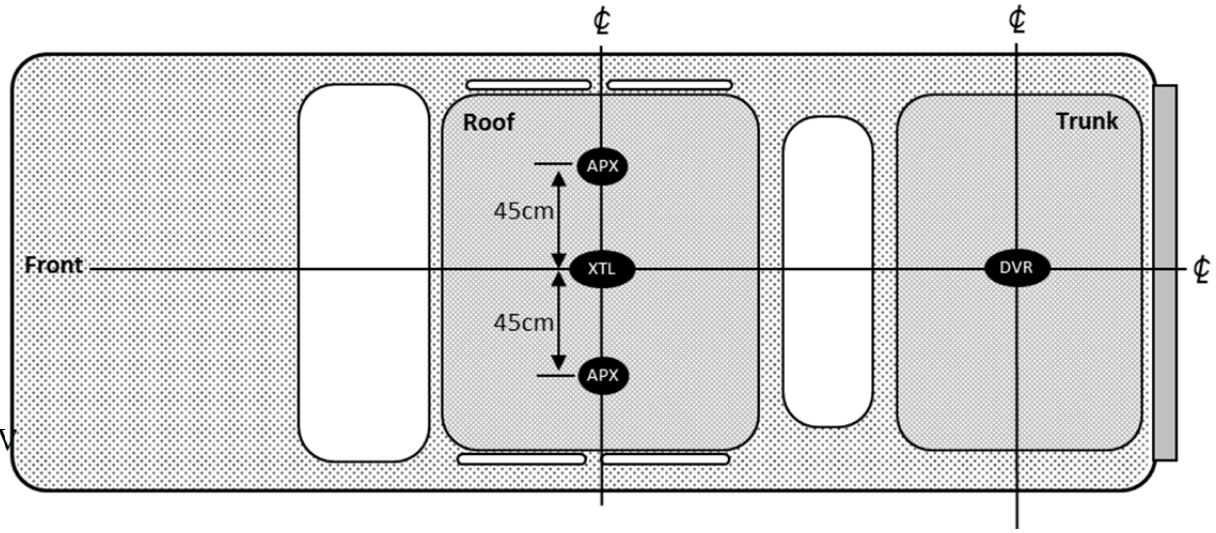


Fig.1 Applicable to XTL and Non APX 8500

APX8500/APX8500 HP mobile radio: For optimum performance and compliance with RF Energy Safety standards, mount the mobile radio antennas (all band and LMR 700/800 band) at location 2 only. Standard LMR VHF and UHF antennas should only be placed at location 1 & 3, which is 20cm (8 inches) from the center as shown in the figure below.

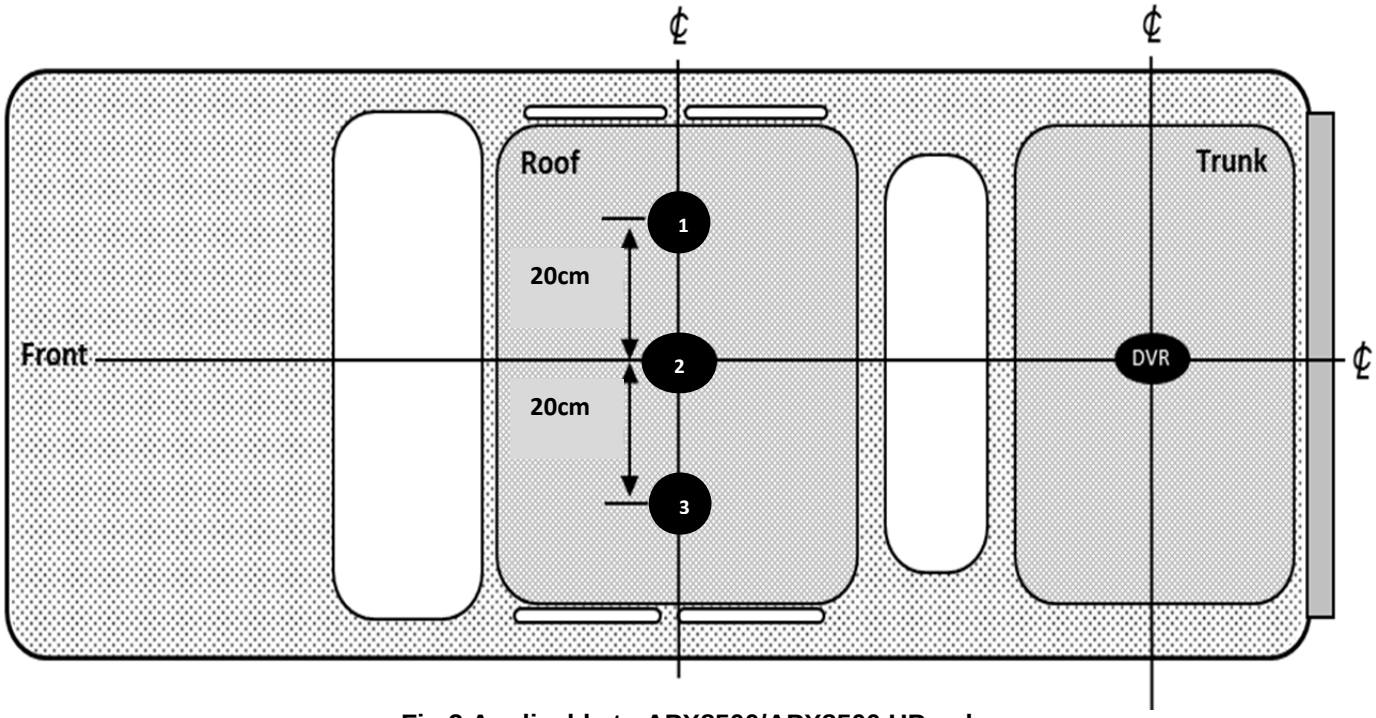


Fig.2 Applicable to APX8500/APX8500 HP only

3. Trunk lid

On some vehicles with clearly defined, flat trunk lids, the antennas of some radio models (see restrictions below) can also be mounted on the center area of the trunk lid. For vehicles without clearly defined, flat trunk lids (such as hatchback autos, sports utility vehicles, and pick-up trucks), mount the antenna in the center area of the roof.

Before installing an antenna on the trunk lid,

- Be sure that the distance from the antenna location on the trunk lid will be at least 85 cm (33 inches) from the rear seat head-rest to ensure compliance with RF Energy Exposure regulations.

- Ensure that the trunk lid is grounded by connecting grounding straps between the trunk lid and the vehicle chassis.

Do not install the trunk antenna if the distance between the back seat passenger and the trunk mount antenna is less than 85cm.

4. Mounting restrictions for certain radio models.

NOTE: Do not cut antenna cables to ensure compliance with RF Energy Exposure regulations

NOTE: ***VHF and UHF 1/4 wave antenna*** should be mounted on the ***roof***, not on the trunk lid, to ensure compliance with RF Energy Exposure regulations.

5. Ensure that the antenna cable can be easily routed to the radio. Route the antenna cable as far away as possible from any vehicle electronic control units and associated wiring.

6. Check the antenna location for any electrical interference.

NOTE: Any two metal pieces rubbing against each other (such as seat springs, shift levers, trunk and hood lids, exhaust pipes, etc.) in close proximity to the antenna can cause severe receiver interference.

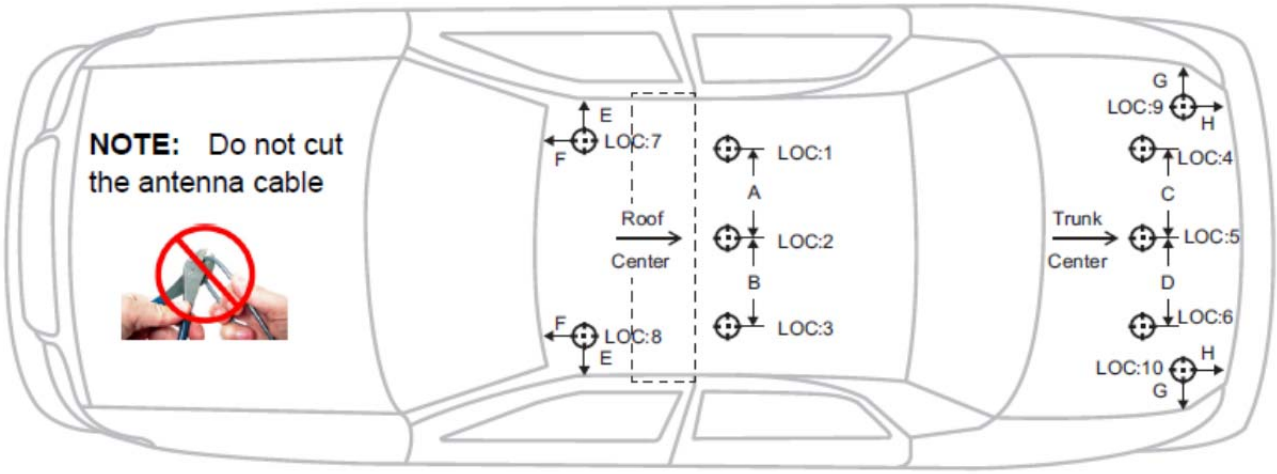


Fig 3 Multiple Antennas Separation for locations 1-10

Fig. 3 indicates the separation distances required for the various antennas used with an APX 8500 midpower radio. Each "cross-hair" symbol represents a possible location (i.e. LOC) of an antenna. The recommendation is to locate them as close to the center of the roof and/or trunk as possible, without interference with a lightbar. This picture is not drawn to scale. For letters A, B, C, and D, the table indicates the EXACT distance for separation of the LMR antennas. For letters E, F, G, and H, the table indicates the maximum distance between the edge of the ground plane and the accessory antenna location.

NOTE:

- A minimum of 18 inch (46cm) separation is required between lightbar and any roof mounted antennas, to prevent interference with the lightbar circuitry (see lightbar manufacturer's installation information).

- The LMR 700/800 antennas should only be placed at LOC:2 or LOC:5.
- Standard LMR VHF and UHF antennas should only be placed at LOC:1, LOC:3, LOC:4 and LOC:6.
- 1/4 wave LMR VHF and UHF antennas should only be placed at LOC:1 and LOC:3 (i.e. Roof only) to ensure compliance with RF Energy Exposure regulations.
- The VML antenna must be separated from any LMR antenna by at least 40 inches.
- The LTE Main and Diversity Antenna locations should be at LOC:9 and LOC:10 when the LMR All-Band or LMR 700/800 narrow band antennas are at LOC:2 (i.e LTE opposite location from the LMR).
- The LTE Main and Diversity Antenna locations should be at LOC:7 and LOC:8 when the LMR All-Band or LMR 700/800 narrow band antennas are at LOC:5 (i.e LTE opposite location from the LMR).
- In some mobile installations that include an LTE modem, external filtering on the LMR port and/ or the LTE port may be needed to reduce interference. Contact your local Motorola Solutions Service Center for more information and for filter kit numbers (See Appendix for contact info).

Table 7 Distance between Antenna

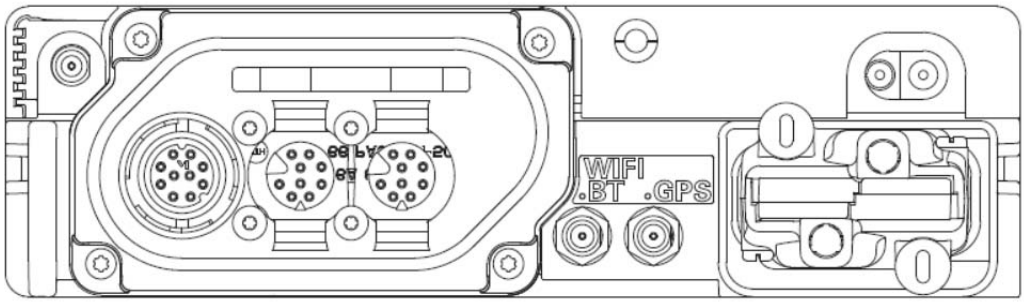
Characters	Distance	Characters	Distance
A	8 inches	E	8 inches
B	8 inches	F	8 inches
C	8 inches	G	8 inches
D	8 inches	H	8 inches

QMA Connection (APX8500/APX8500 HP Only)

APX8500 is using a quick disconnect connection called QMA. This does not require any tightening.

- Ensure there is sufficient slack in the antenna cable.
- Ensure that the collar of the antenna cable plug does not bind.
- Engage the QMA cable plug onto the jack, listening for a click to ensure proper engagement.
- Gently tug on the cable to ensure that it is engaged.
- To disengage, pull back on the cable plug’s collar and pull the cable straight off the jack.

GPS/GLONASS/Wi-Fi/Antenna Placement (APX8500/APX8500 HP Only)



. Fig. 4 GPS/GLONASS and Wi-Fi Antenna Connector on the Back of the Mid Power Radio

Mobile Radio / DVR Antenna separation

To ensure interference-free performance when both the Mobile Radio and the DVR are active at the same time, the two antennas must be mounted in such way as to provide 30dB minimum antenna isolation.

Fixed DVRS Site Antennas

Mobile radio equipment is sometimes installed at a fixed location and operated as a control station or as a fixed unit. In such cases the antenna installation must comply with the following requirements in order to assure optimal performance and make sure human exposure to radio frequency electromagnetic energy is within the guidelines set forth in the above standards.

- The antennas must be mounted outside the building.
- Mount the antennas on a tower if at all possible.
- If the antennas are to be mounted on a building then it must be mounted on the roof.
- As with all fixed site antenna installations, it is the responsibility of the licensee to manage the site in accordance with applicable regulatory requirements and may require additional compliance actions such as site survey measurements, signage, and site access restrictions in order to ensure that exposure limits are not exceeded.

Temporary-Fixed Site

Futurecom requires the P25 Transportable DVRS (TDVRS) operator to ensure FCC/ISED Requirements for Radio Frequency Exposure are met. It is the responsibility of the Licensee to ensure that the appropriate separation distances between the antennas and bystanders are established and followed to meet the FCC/ISED Maximum Permissible Exposure (MPE) Requirements in any particular Temporary-Fixed location. In situations where a site assessment is not practical, it is recommended that the antennas be located **at least 9 feet (2.74m) from bystanders**. This should ensure MPE compliance in any Temporary-Fixed application and is likely to be a much greater separation distance than is necessary in most cases. Failure to observe the MPE distance exclusion area around the antenna may expose persons within this area to RF energy above the FCC/ISED exposure limits for bystanders (general population).

Approved Antennas and Maximum output power (W) for combination DVR and APX mobiles for Temporary-Fixed Site

NOTE:
APX mobile RF conducted antenna power in the tables below denotes up to 50% Tx duty cycle.
DVR RF conducted antenna power in the tables below denotes up to 50% Tx duty cycle.

DVR

Band	Antenna	Power (W)
VHF (136-174MHz)	DDN9014	6
UHF1 (406-430MHz)	DDN9015	10
UHF2 (450-470MHz)	DDN9015	10
UHF3 (470-512MHz)	DDN9015	10
700 (768-806MHz)	DDN9016	5
800 (806-869MHz)	DDN9016	10

APX 8500

Band	Antenna	Power (W)
VHF (136-174MHz)	DDN9014	60
UHF1 (406-470MHz)	DDN9015	48
UHF2 (450-520MHz)	DDN9015	54
700/800 (764-870MHz)	DDN9016	42

Max Power (W) for combination DVR and APX 8500

		APX 8500			
	DVR/APX	VHF	UHFR1	UHFR2	700/800MHz
DVR	VHF	6/60	6/48	6/54	6/42
	UHFR1	10/60	10/48	10/54	10/42
	UHFR2	10/60	10/48	10/54	10/42
	UHFR3	10/60	10/48	10/54	10/42
	700MHz	5/60	5/48	5/54	5/42
	800MHz	10/60	10/48	10/54	10/42