



Futurecom Systems Group, ULC

DVRS
RF Safety Booklet

Document Revisions

| Rev | Date | By | Notes & References |
|-----|--------------|----|--------------------|
| R10 | May 24, 2017 | | Added APX 8500 |
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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 exposure limits.

RF Exposure

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.

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 limits. This radio device is NOT authorized for general population, consumer, or any other use.

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's 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) | Recommended Lateral Distance from Antenna |
|-----------------------|---|
| VHF | 82cm (32.3 inches) (up to 50% Tx duty cycle) |
| UHF 380-512MHz | 75cm (29.5 inches) (up to 50% Tx duty cycle) |
| 700MHz | 73cm (28.7 inches) (up to 100% Tx duty cycle) |
| 800MHz | 76cm (29.9 inches) (up to 100% Tx duty cycle) |

Table 1 Recommended Lateral Distance - Stand Alone DVR

NOTE:

50% Tx duty cycle is defined as Push To Talk (PTT), 50% Talk - 50% Listen.
100% Tx duty cycle is defined as Push To Talk (PTT), 100% Talk.

| 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 $\lambda/4$ omni-directional antenna for the Mobexcom P25 DVR Repeater 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 Mobexcom P25 DVR Repeater.

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 than 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** 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 100% Tx duty cycle) | 800 MHz (20W) (up to 100% 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 100% 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 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd | HAD4008A, 1/4 wave, 0dBd | HAD4009A, 1/4 wave, 0dBd | | | |
| | 10W / 57W | 10W / 57W | 10W / 57W | | | |
| XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd | HAD4008A, 1/4 wave, 0dBd | HAD4009A, 1/4 wave, 0dBd | | | |
| | 10W / 57W | 10W / 57W | 10W / 57W | | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd | HAE6013A, 1/2 wave, 2dBd | HAE4003A, 1/4 wave, 0dBd | HAE4011A, 1/2 wave, 3.5dBd | | |
| | 10W / 120W | 10W / 120W | 10W / 120W | 10W / 120W | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd | HAE6013A, 1/2 wave, 2dBd | HAE4003A, 1/4 wave, 0dBd | HAE4011A, 1/2 wave, 3.5dBd | | |
| | 10W / 48W | 10W / 48W | 10W / 48W | 10W / 48W | | |
| XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867 Max Power: DVR / Mobile | 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 |
| | 10W / 54W | 10W / 54W | 10W / 54W | 10W / 54W | 10W / 54W | 10W / 54W |
| XTL5000 700/800MHz FCC ID: AZ492FT5823 Max Power: DVR / Mobile | HAF4013A, 1/4 wave, 3dBd | HAF4014A, 1/4 wave, 3dBd | HAF4016A, 1/4 wave, 0dBd | HAF4017A, 1/4 wave, 3dBd | | |
| | 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 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd | HAD4008A, 1/4 wave, 0dBd | HAD4009A, 1/4 wave, 0dBd | | | |
| | 5W / 57W | 5W / 57W | 5W / 57W | | | |
| XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd | HAD4008A, 1/4 wave, 0dBd | HAD4009A, 1/4 wave, 0dBd | RAD4010A, 1/2 wave, 3dBd | | |
| | 5W / 57W | 5W / 57W | 5W / 57W | 20W / 120W * | | |
| | | | | * XTL5000 VHF (136-174MHz) | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd | HAE6013A, 1/2 wave, 2dBd | HAE4003A, 1/4 wave, 0dBd | HAE4011A, 1/2 wave, 3.5dBd | | |
| | 5W / 120W | 5W / 120W | 5W / 120W | 5W / 120W | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd | HAE6013A, 1/2 wave, 2dBd | HAE4003A, 1/4 wave, 0dBd | HAE4011A, 1/2 wave, 3.5dBd | | |
| | 5W / 48W | 5W / 48W | 5W / 48W | 5W / 48W | | |
| XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867 Max Power: DVR / Mobile | 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 |
| | 5W / 54W | 5W / 54W | 5W / 54W | 5W / 54W | 5W / 54W | 5W / 57W |
| XTL5000 700/800MHz FCC ID: AZ492FT5823 Max Power: DVR / Mobile | HAF4013A, 1/4 wave, 3dBd | HAF4014A, 1/4 wave, 3dBd | HAF4016A, 1/4 wave, 0dBd | HAF4017A, 1/4 wave, 3dBd | | |
| | 5W / 42W | 5W / 42W | 5W / 42W | 5W / 42W | | |

Table 4B Approved 700 DVRS Configurations – XTL5000 / XTL2500

DVR: 7V083X04 (DQPMVDVR6000P) 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 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd 10W / 57W | HAD4008A, 1/4 wave, 0dBd 10W / 57W | HAD4009A, 1/4 wave, 0dBd 10W / 57W | | | |
| XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd 10W / 57W | HAD4008A, 1/4 wave, 0dBd 10W / 57W | HAD4009A, 1/4 wave, 0dBd 10W / 57W | | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd 10W / 120W | HAE6013A, 1/2 wave, 2dBd 10W / 120W | HAE4003A, 1/4 wave, 0dBd 10W / 120W | HAE4011A, 1/2 wave, 3.5dBd 10W / 120W | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd 10W / 48W | HAE6013A, 1/2 wave, 2dBd 10W / 48W | HAE4003A, 1/4 wave, 0dBd 10W / 48W | HAE4011A, 1/2 wave, 3.5dBd 10W / 48W | | |
| XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867 Max Power: DVR / Mobile | HAE6016A, 1/4 wave, 0dBd 10W / 54W | HAE4003A, 1/4 wave, 0dBd 10W / 54W | HAE4011A, 1/2 wave, 3.5dBd 10W / 54W | HAE4012A, 1/4 wave, 3.5dBd 10W / 54W | HAE4013A, 1/4 wave, 3.5dBd 10W / 54W | HAE4004A, 1/4 wave, 0dBd 10W / 54W |
| XTL5000 700/800MHz FCC ID: AZ492FT5823 Max Power: DVR / Mobile | HAF4013A, 1/4 wave, 3dBd 10W / 42W | HAF4014A, 1/4 wave, 3dBd 10W / 42W | HAF4016A, 1/4 wave, 0dBd 10W / 42W | HAF4017A, 1/4 wave, 3dBd 10W / 42W | | |

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

DVR: 7V083X03 (DQPMVDVR5000P) 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 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd 10W / 57W | HAD4008A, 1/4 wave, 0dBd 10W / 57W | HAD4009A, 1/4 wave, 0dBd 10W / 57W | | | |
| XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd 10W / 57W | HAD4008A, 1/4 wave, 0dBd 10W / 57W | HAD4009A, 1/4 wave, 0dBd 10W / 57W | | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd 10W / 120W | HAE6013A, 1/2 wave, 2dBd 10W / 120W | HAE4003A, 1/4 wave, 0dBd 10W / 120W | HAE4011A, 1/2 wave, 3.5dBd 10W / 120W | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd 10W / 48W | HAE6013A, 1/2 wave, 2dBd 10W / 48W | HAE4003A, 1/4 wave, 0dBd 10W / 48W | HAE4011A, 1/2 wave, 3.5dBd 10W / 48W | | |
| XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867 Max Power: DVR / Mobile | HAE6016A, 1/4 wave, 0dBd 10W / 54W | HAE4003A, 1/4 wave, 0dBd 10W / 54W | HAE4011A, 1/2 wave, 3.5dBd 10W / 54W | HAE4012A, 1/4 wave, 3.5dBd 10W / 54W | HAE4013A, 1/4 wave, 3.5dBd 10W / 54W | HAE4004A, 1/4 wave, 0dBd 10W / 54W |
| XTL5000 700/800MHz FCC ID: AZ492FT5823 Max Power: DVR / Mobile | HAF4013A, 1/4 wave, 3dBd 10W / 42W | HAF4014A, 1/4 wave, 3dBd 10W / 42W | HAF4016A, 1/4 wave, 0dBd 10W / 42W | HAF4017A, 1/4 wave, 3dBd 10W / 42W | | |

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

DVR: 7V083X07 (DQPM DVR4000P) **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 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd | HAD4008A, 1/4 wave, 0dBd | HAD4009A, 1/4 wave, 0dBd | | | |
| XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd | HAD4008A, 1/4 wave, 0dBd | HAD4009A, 1/4 wave, 0dBd | | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd | HAE6013A, 1/2 wave, 2dBd | HAE4003A, 1/4 wave, 0dBd | HAE4011A, 1/2 wave, 3.5dBd | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd | HAE6013A, 1/2 wave, 2dBd | HAE4003A, 1/4 wave, 0dBd | HAE4011A, 1/2 wave, 3.5dBd | | |
| XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867 Max Power: DVR / Mobile | 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 |
| XTL5000 700/800MHz FCC ID: AZ492FT5823 Max Power: DVR / Mobile | HAF4013A, 1/4 wave, 3dBd | HAF4014A, 1/4 wave, 3dBd | HAF4016A, 1/4 wave, 0dBd | HAF4017A, 1/4 wave, 3dBd | | |

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

DVR: 7V083X01 (DQPM DVR3000P) **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 |
|--|-----------------------------|-----------------------------|-------------------------------|-------------------------------|-------------------------------|-----------------------------|
| XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3806 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd | HAD4008A, 1/4 wave, 0dBd | HAD4009A, 1/4 wave, 0dBd | | | |
| XTL5000 VHF (147-174MHz) FCC ID: AZ492FT3808 Max Power: DVR / Mobile | HAD4007A, 1/4 wave, 0dBd | HAD4008A, 1/4 wave, 0dBd | HAD4009A, 1/4 wave, 0dBd | | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4870 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd | HAE6013A, 1/2 wave, 2dBd | HAE4003A, 1/4 wave, 0dBd | HAE4011A, 1/2 wave, 3.5dBd | | |
| XTL5000 UHF R1(380-470MHz) FCC ID: AZ492FT4862 Max Power: DVR / Mobile | HAE6012A, 1/4 wave, 0dBd | HAE6013A, 1/2 wave, 2dBd | HAE4003A, 1/4 wave, 0dBd | HAE4011A, 1/2 wave, 3.5dBd | | |
| XTL5000 UHF R2(450-512MHz) FCC ID: AZ492FT4867 Max Power: DVR / Mobile | 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 |
| XTL5000 700/800MHz FCC ID: AZ492FT5823 Max Power: DVR / Mobile | HAF4013A, 1/4 wave, 3dBd | HAF4014A, 1/4 wave, 3dBd | HAF4016A, 1/4 wave, 0dBd | HAF4017A, 1/4 wave, 3dBd | | |

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

| DVR: 7V083X06 (DQPM-DVR8000P) | | 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) | | | | | | | |
| | 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 |
| 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/ 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
 (DQPM DVR7000P)
 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
 (DQPMVDVR4000P)
 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 | Antenna | Antenna | Antenna | Antenna | Antenna | Antenna | Antenna | Antenna | 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 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)
 (DQPM DVR5000P)
 FCC ID: LO6-DVRSUHF Maximum conducted power delivered to antenna: **DVR (W) / Mobile (W)**

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

(DQPM/DVR6000P)

FCC ID: LO6-DVRSUHF Maximum conducted power delivered to antenna: DVR (W) / Mobile (W)

| Mobile | Antenna | Antenna | Antenna | Antenna | Antenna | Antenna | Antenna | Antenna | 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 Freq Range: 136-174MHz, Trunk Mounted Antenna: HAD4006A, 1/4 wave, 0dBd, HAD4007A,
 (DQPM DV83000P) 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 | Antenna | Antenna | Antenna | Antenna | Antenna | Antenna | Antenna | 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) | 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 | <u>Roof Mounted Antenna</u> | |
| APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 10W / 60W | |
| APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 10W / 54W | |
| APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 10W / 54W | |
| APX8500 7/800MHz FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 10W / 42W | |

Table 6A Approved 800 DVRS Configurations – APX8500

| | | |
|---|--|--|
| 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 | <u>Roof Mounted Antenna</u> | |
| APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 5W / 60W | |
| APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 5W / 54W | |
| APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 5W / 54W | |
| APX8500 7/800MHz FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 5W / 42W | |

Table 6B Approved 700 DVRS Configurations – APX8500

| | | |
|---|---|--|
| DVR: 7V083X07 (DQPM DVR4000P) | 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 | <u>Roof Mounted Antenna</u> | |
| APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 10W / 60W | |
| APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 10W / 54W | |
| APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 10W / 54W | |
| APX8500 7/800MHz FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 10W / 42W | |

Table 6C Approved UHF R1 DVRS Configurations – APX8500

| | | |
|--|---|-----------|
| DVR: 7V083X03 (DQPMDVRS000P) | 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) | |
| FCC ID: LO6-DVRSUHF | Maximum conducted power delivered to antenna: DVR (W) / Mobile (W) | |
| | | |
| Mobile | <u>Roof Mounted Antenna</u> | |
| APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089 Max Power: DVR / Mobile | AN000131A01, 1/4 wave, 0dBd | 10W / 60W |
| APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089 Max Power: DVR / Mobile | AN000131A01, 1/4 wave, 0dBd | 10W / 54W |
| APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089 Max Power: DVR / Mobile | AN000131A01, 1/4 wave, 0dBd | 10W / 54W |
| APX8500 7/800MHz FCC ID: AZ492FT7089 Max Power: DVR / Mobile | AN000131A01, 1/4 wave, 0dBd | 10W / 42W |

Table 6D Approved UHF R2 DVRS Configurations – APX8500

| | | |
|--|---|-----------|
| DVR: 7V083X04 (DQPMDVR6000P) | 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) | |
| FCC ID: LO6-DVRSUHF | Maximum conducted power delivered to antenna: DVR (W) / Mobile (W) | |
| | | |
| Mobile | <u>Roof Mounted</u> <u>Antenna</u> | |
| APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089 Max Power: DVR / Mobile | AN000131A01, 1/4 wave, 0dBd | 10W / 60W |
| APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089 Max Power: DVR / Mobile | AN000131A01, 1/4 wave, 0dBd | 10W / 54W |
| APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089 Max Power: DVR / Mobile | AN000131A01, 1/4 wave, 0dBd | 10W / 54W |
| APX8500 7/800MHz FCC ID: AZ492FT7089 Max Power: DVR / Mobile | AN000131A01, 1/4 wave, 0dBd | 10W / 42W |

Table 6E Approved UHF R3 DVRS Configurations – APX8500

| | | |
|---|---|--|
| DVR: 7V083X01 (DQPMDVVR3000P) | 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 | <u>Roof Mounted Antenna</u> | |
| APX8500 VHF (136-174MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 6W / 60W | |
| APX8500 UHF (380-470MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 6W / 54W | |
| APX8500 UHF (450-520MHz) FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 6W / 54W | |
| APX8500 7/800MHz FCC ID: AZ492FT7089 | AN000131A01, 1/4 wave, 0dBd | |
| Max Power: DVR / Mobile | 6W / 42W | |

Table 6F Approved VHF DVRS Configurations – APX8500

Antenna Installation Instructions

IMPORTANT

To assure optimum performance and compliance with RF Energy Safety standards, 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

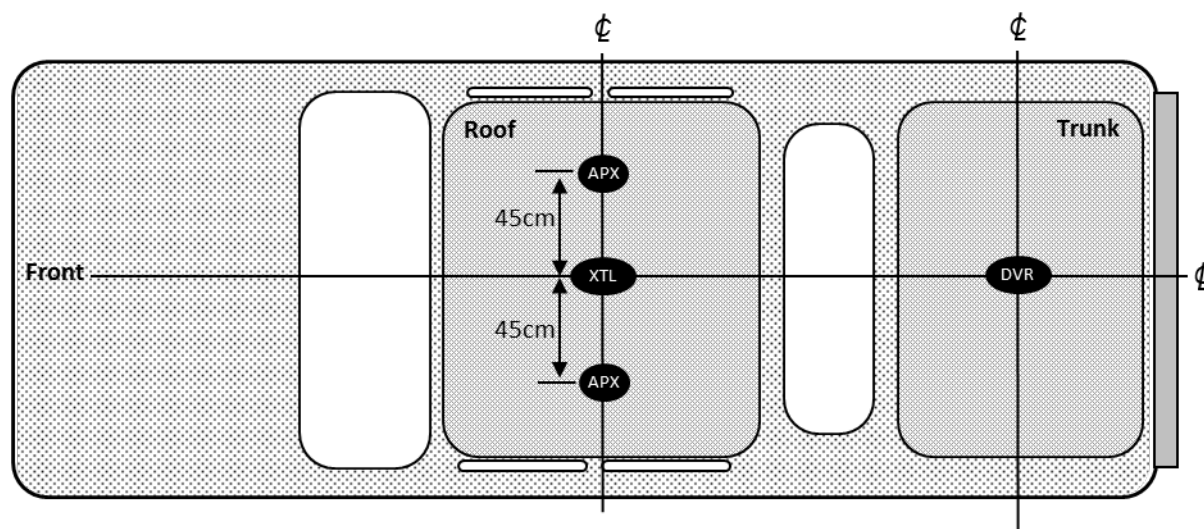
External installation

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

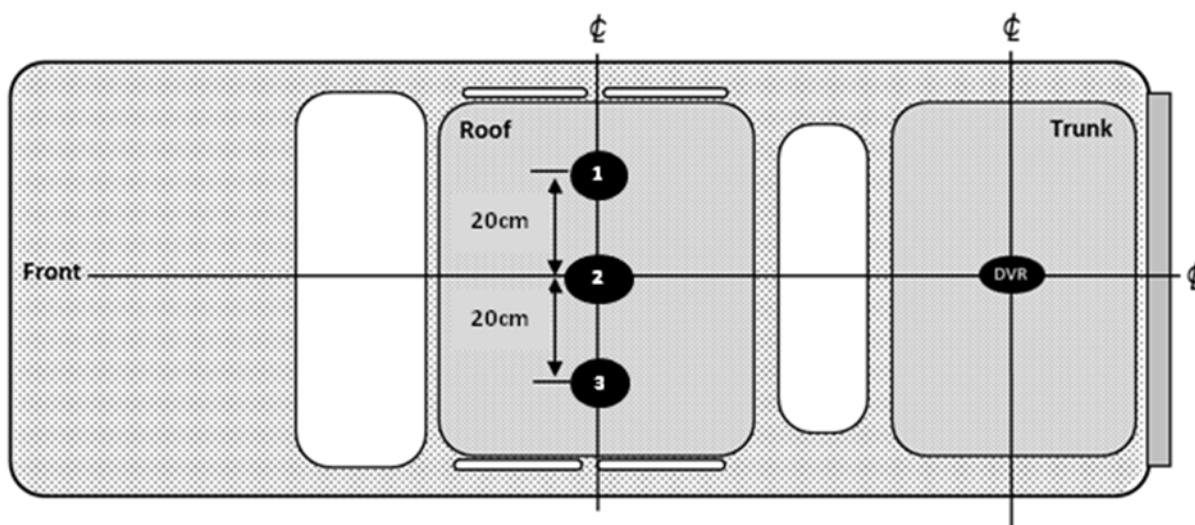
Roof top

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).



APX8500 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.



Applicable to APX8500 only

Trunk lid

For optimum performance and compliance with RF Energy Safety standards, mount the DVR antenna (DVR) in the center area of the trunk as shown above.

Before installing an antenna on the trunk lid:

- Ensure that the distance from the antenna location on the trunk lid will be at least 85 cm (33.5 inches) from the front surface of the rear seat-back to assure compliance with RF Energy Safety standards.
- Ensure that the trunk lid is grounded by connecting grounding straps between the trunk lid and the vehicle chassis.
- 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.
- Check the antenna location for any electrical interference.
- Ensure that any other mobile radio antenna on this vehicle is at least 1ft (30.5cm) away from the DVR and its associated mobile radio antennas.

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.

Mobile Radio / DVR Antenna separation

To ensure interference-free performance when both the Mobile Radio and the DVR are active, 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 insure that exposure limits are not exceeded.

Temporary-Fixed Site

Futurecom requires the P25 Transportable DVRS (TDVRS) operator to ensure FCC/IC 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 and IC 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 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/IC 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 100% 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

| 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

| | | APX | | | |
|-----|---------|-------|-------|-------|------------|
| | 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 |