

## ADX V Fiber Distributed Antenna System



The ADXV Series represents the next evolution of DAS technology and architecture:

- Truly modular architecture means our single ADXV platform is ideal for both single carrier and neutral host applications
- Most flexible platform on the market provides a genuinely future-proofed solution so you only pay for what you need now
- Class-leading output power with 2W, 5W, 20W, and 40W in commercial and public safety bands covers virtually all in-building applications with significant cost savings
- Famed ADRF web-based GUI allows remote network control and alarm monitoring
- Built-in Spectrum Analyzer and Signal Generator at Head End
- Built-in Spectrum Analyzer at the Remote Units
- Up to 5 dB of optical link budget over one strand of SMF per remote unit lowers cost and complexity and increases reach into disparate topologies
- Innovative Power Sharing Control enables dynamic power allocation amongst carriers or technologies
- Patented technologies (such as Band Commissioning Routine™ and Noise Detection Routine™) speed commissioning time to reduce cost

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## HIGHLIGHTS

### *System*

- Control parameters such as gain, output power, and alarm threshold can be changed using Web-GUI interface allowing the user to fine tune the system to the given RF environment
- Incremental Automatic Shutdown/Resume Time: ADXV gradually increases the time span between automatic shutdown and resume period before it permanently shuts itself down
- Supports ALC function to prevent ADXV DAS from input overload or output overpower
- Supports SNMP v1, v2c, v3 (get, set & traps)
- Modular structure
- Operates with up to 5dBo optical loss (via Single Mode Fiber) or 10dBo with the use of the OEU
- Requires only single strand of single mode fiber per Remote Unit
- Supports back-up and selective restore of setting parameters for all connected active modules in ADXV DAS via web-based GUI
- Noise Figure under 5dB @ max gain
- VSWR under 1.3:1 for BTS Interface Port

### *Head End*

- Supports power sharing of multiple carriers' signals via configurable grouped POI/POIL units
- MIMO / Multi-Sector capable with a single Head End
- Daisy-chain and monitor up to 8 Head Ends from a single point of interface
- Web-based GUI and connectivity via DHCP (in host mode); no 3rd party GUI software required
- Supports dry contact alarming
- Both AC and DC power supply options available
- SMB (snap-on) interconnections for quick installation

### *Medium Power Remote Unit*

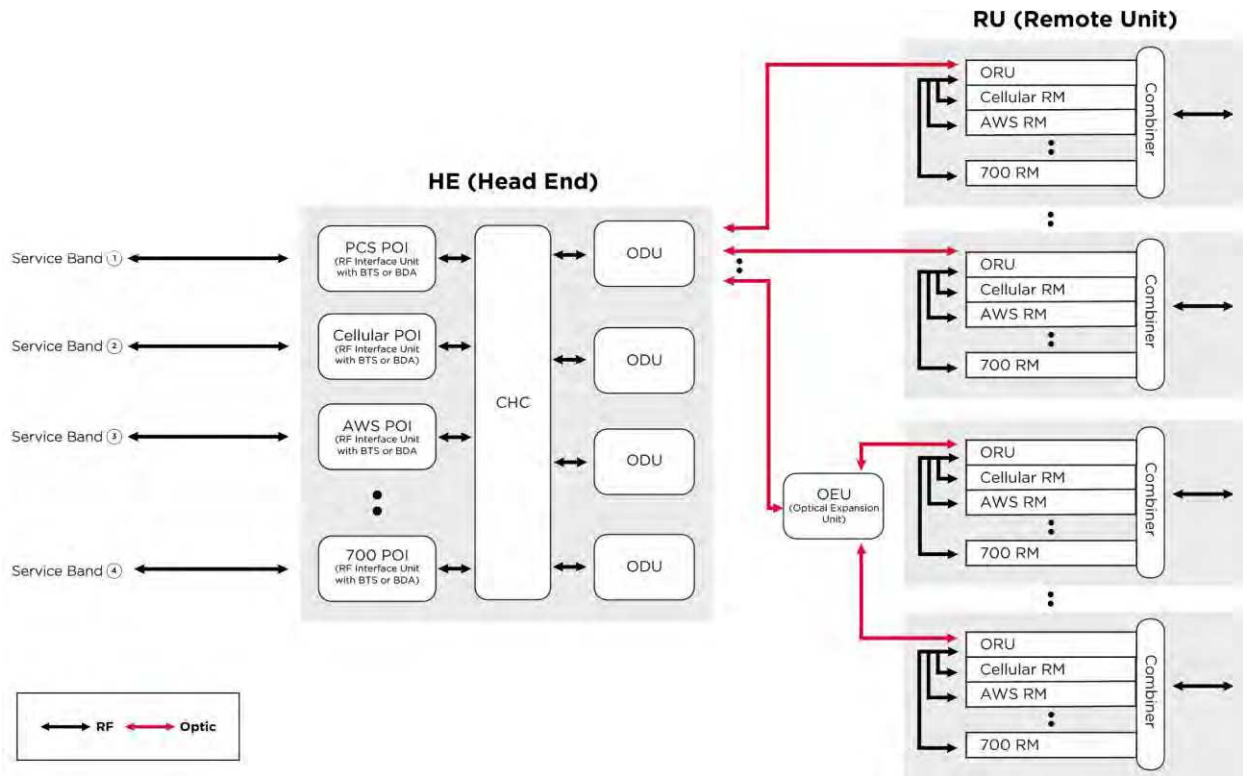
- 33dBm of downlink composite output power for 700 MHz (Commercial), Cellular + SMR800, and 700 + 800 MHz Public Safety
- 37dBm of downlink composite output power for PCS, AWS, WCS, and BRS (TD-LTE)
- 25dBm of downlink composite output power for VHF + UHF
- IP66 rating without any additional chassis
- 30dB coupling test ports on each individual remote module
- Both AC and DC power supply options available
- 4.3-10 connectors

### *High Power Remote Unit*

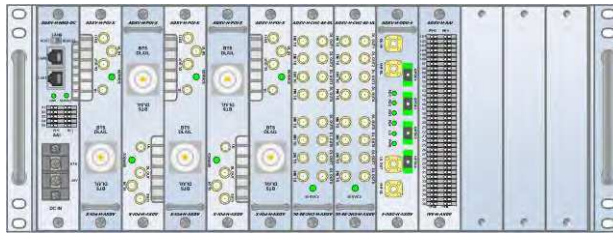
- 43dBm of downlink composite output power for 700 MHz (Commercial), and Cellular + SMR800
- 46dBm of downlink composite output power for PCS, AWS, and BRS (TD-LTE)
- 45dBm of downlink composite output power for WCS
- IP66 rating without any additional chassis
- 40dB coupling test ports on each individual remote module
- Both AC and DC power supply options available
- 4.3-10 connectors

## SYSTEM ARCHITECTURE

ADX V Series active fiber DAS is comprised of Head End (HE) equipment and Remote Unit (RU) equipment.

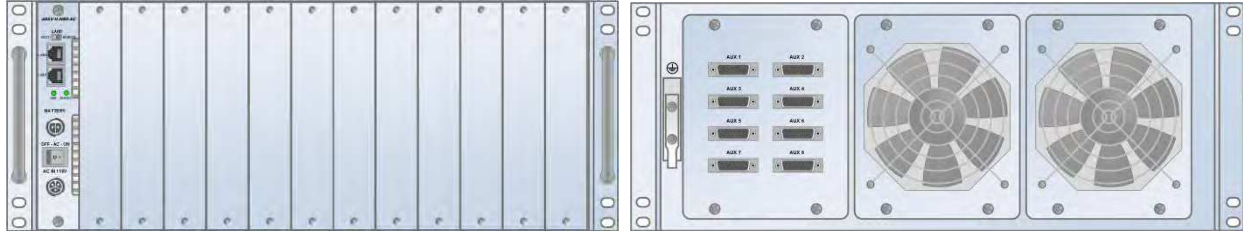


## ADX V HEAD END EQUIPMENT



## ADXV-H-NMS-AC

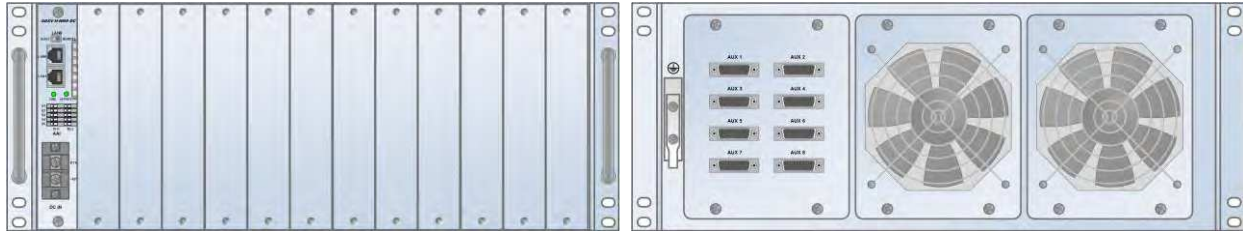
### NMS-AC (AC Power Head End NMS Package)



- 100 to 240V AC input
- Daisy-chain multiple NMS to configure/monitor from a single point of interface
- Supports battery backup unit
- Supports up to 12 POI, ODU, or CHC modules
- Supports up to 8 ADXV-H-RACK to support up to an additional 16 ODU or CHC-44M/CHC-88 modules
- SNMP v1, v2c, and v3 (get, set, & trap) and dry contact alarm support

## ADXV-H-NMS-DC

### NMS-DC (DC Power Head End NMS Package)



- -36 to -72V DC input
- Daisy-chain multiple NMS to configure/monitor from a single point of interface
- Supports up to 12 POI, ODU, or CHC modules
- Supports up to 8 ADXV-H-RACK to support up to an additional 16 ODU or CHC-44M/CHC-88 modules
- SNMP v1, v2c, and v3 (get, set, & trap) and dry contact alarm support

## ADXV-H-POI

*POI (High Power Point of Interface Unit)*



- 7/16 DIN (Female) Simplex DL/Duplex Input and SMA (Female) Simplex UL port
- 7/16 DIN (Female) Duplex Input only for ADXV-H-POI-BT (BRS TD-LTE) module
- Receives RF input signals from 0dBm to +48dBm
- Available for Lower 700 MHz (Commercial), Upper 700 MHz (Commercial) + Band14, SMR800 + Cellular, PCS, AWS, WCS, and BRS (TD-LTE)
- Power ratios can be specified between multiple POI/POIL unit via NMS
- Built-in spectrum analyzer and signal generator

## ADXV-H-POIL

*POIL (Low Power Point of Interface Unit)*



- 4.3-10 (Female) Simplex DL/Duplex Input and 4.3-10 (Female) Simplex UL port
- Receives RF input signals from 0dBm to +25dBm
- Available for Lower 700 MHz (Commercial), Upper 700 MHz (Commercial) + Band14, SMR800 + Cellular, PCS, AWS, and WCS
- Power ratios can be specified between multiple POI/POIL unit via NMS
- Built-in spectrum analyzer and signal generator

## ADXV-H-POIL-VU

*POIL-VU (VHF/UHF Low Power Point of Interface Unit)*



- 4.3-10 (Female) Simplex DL/UL ports
- Receives RF input signals from 0dBm to +25dBm
- Supports VHF and UHF frequencies
- Built-in spectrum analyzer and signal generator for UHF bands

## ADXV-H-CHC-88-DL/UL

*CHC-88 (8x8 Combiner)*



- SMB (snap-on) inputs and outputs
- Supports up to 8 inputs and 8 outputs
- Designed for single carrier application

## ADXV-H-CHC-44M-DL/UL

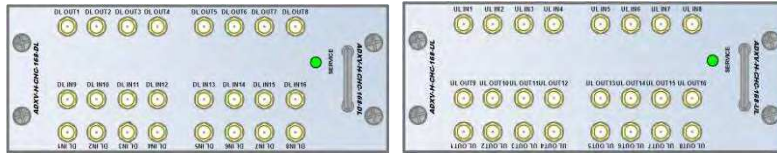
*CHC-44M (4x4 MIMO Combiner)*



- SMB (snap-on) inputs and outputs
- Supports up to 4 inputs and 4 outputs x 2
- Designed for quad-band MIMO application

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## ADXV-H-CHC-168-DL/UL CHC-168 (16x8 Enterprise Combiner)



- SMB (snap-on) inputs and outputs
- Supports up to 16 inputs and 8 outputs
- Designed for Enterprise application to support up to 16 inputs

## ADXV-H-ODU-4 ODU-4 (4 Port Optic Donor Unit)



- SMB (snap-on) Input RF ports | SC/APC Fiber ports
- Supports frequency range between 136 – 2690 MHz
- Minimizes the number of optic cables needed by transporting multi band signals over a single strand of fiber using WDM technology
- ODU-4 supports up to 4 remote units with up to 5dB loss

## ADXV-H-RACK H-RACK (19" Rack for HE Components)



- 19" expansion rack for ADXV HE components
- Supports up to 2 ODU or CHC-88/CHC-44M

## ADXV-H-AAI AAI (Auxiliary Alarm Interface Module)



- Supports dry contact alarming for ADXV HE components
- Supports dry contact alarming for up to 4 public safety remote units
- Additional public safety remotes units can be monitored with additional AAI modules
- Supports up to 6 dry contact input alarms

## ADX V MEDIUM POWER REMOTE UNIT EQUIPMENT



### ADXV-R-CHA

*CHA (Remote Module Chassis)*



- Both wall and 19" rack mount solution for remote modules
- Supports up to 7 ADXV slot-type remote components

### ADXV-R-RACK

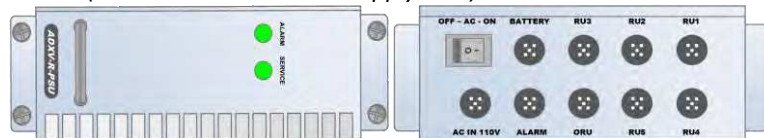
*R-RACK (19" Rack for Remote Modules)*



- 19" expansion rack for ADXV RU components
- Supports up to 2 ORU, RAM, or PSU

### ADXV-R-PSU-AC

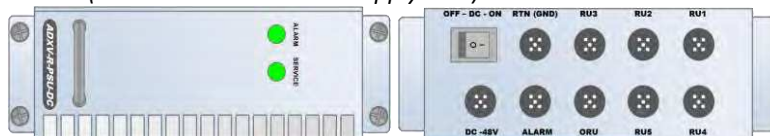
*PSU-AC (AC Remote Unit Power Supply Unit)*



- 100 to 240V AC input
- 500W Power Capacity
- Supports PSU alarming
- Supports ADRF-BBx for a battery backup solution

### ADXV-R-PSU-DC

*PSU-DC (DC Remote Unit Power Supply Unit)*

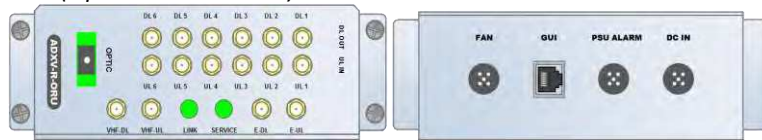


- -36 to -72V DC input
- 500W Power Capacity
- Supports PSU alarming

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## ADXV-R-ORU

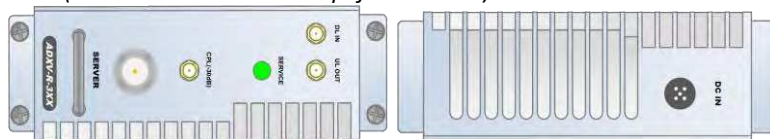
*ORU (Optical Remote Unit)*



- SMA (Female) RF ports
- SC/APC connector to receive optic and convert to RF
- Supports up to 6 remote modules
- Expansion UL and DL ports available to support additional remote modules
- Local GUI port available to log into local remote unit

## ADXV-R-33X/37X

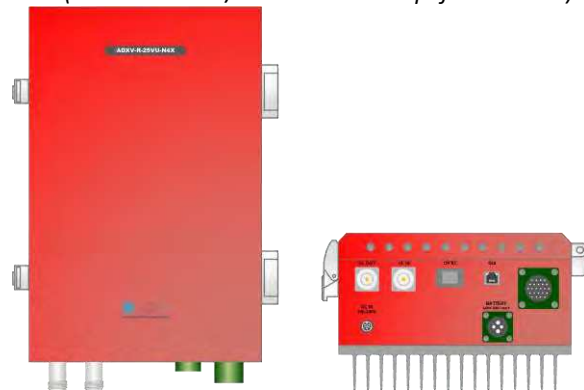
*RAM (2W and 5W Remote Amplifier Module)*



- SMA (Female) and 4.3-10 (Female) RF ports
- 33dBm of downlink composite output power on low band
- 37dBm of downlink composite output power on high band
- 30dB test port available at every band specific remote module

## ADXV-R-25VU-N4X

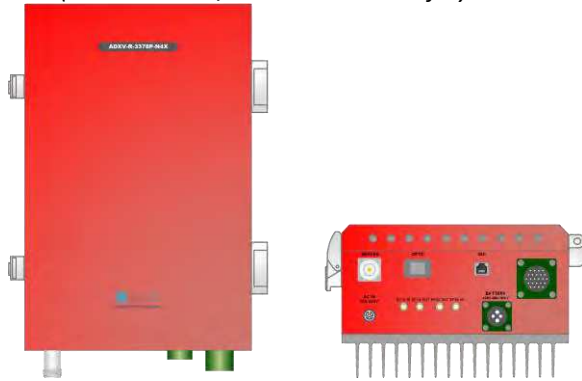
*RAM (NEMA-4X VHF/UHF Remote Amplifier Module)*



- 4.3-10 (Female) simplex RF ports
- Supports dry contact alarming
- Supports ADRF-BBx battery backup solution
- Local GUI port available to log into local remote unit
- 25dBm composite output power

## ADXV-R-3378P-N4X

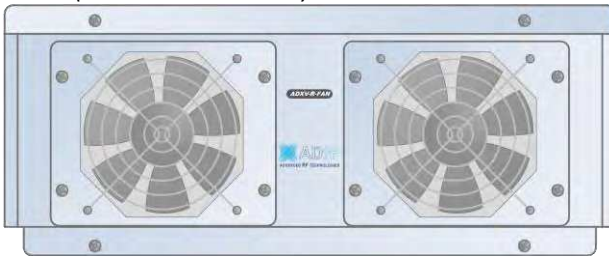
RAM (NEMA-4X 700/800 MHz Public Safety Remote Amplifier Module)



- 4.3-10 (Female) duplex RF port
- Supports dry contact alarming
- Supports ADRF-BBx battery backup solution
- Local GUI port available to log into local remote unit
- 33dBm of downlink composite output power

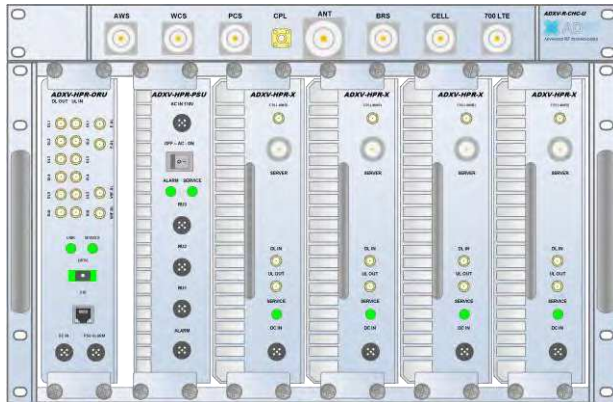
## ADXV-R-FAN-DC

R-FAN (Remote Module Fan)



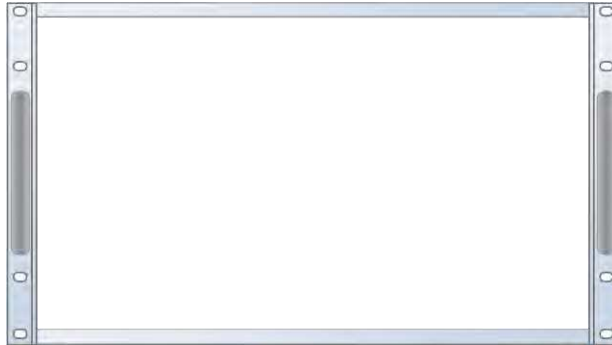
- Mounts to the rear of the ADXV-R-CHA
- Provides active cooling when more than 4 RAM are deployed
- Provides cable management for RAM power cables
- Field replaceable fans

## ADX V HIGH POWER REMOTE UNIT EQUIPMENT



### ADXV-HPR-CHA

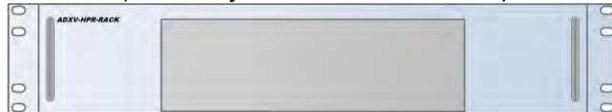
*HPR-CHA (High Power Remote Chassis)*



- Both wall and 19" rack mount solution for high power remote modules
- Supports up to 6 ADXV slot-type high power remote components

### ADXV-HPR-RACK

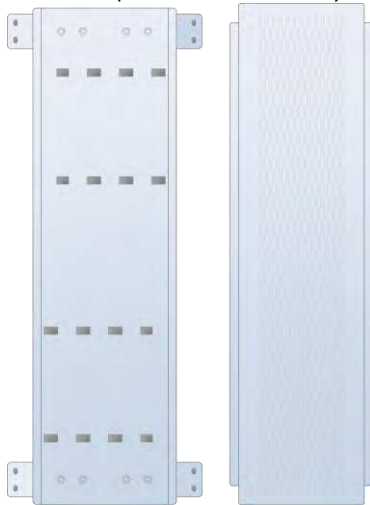
*HPR-RACK (19" Rack for HPR Remote Modules)*



- 19" expansion rack for ADXV HPR components
- Supports 1 HPR-ORU, HPR-RAM, HPR-PSU, or HPR-CHC

## ADXV-HPR-PMK

*HPR-PMK (HPR Pole Mount Kit)*



- Supports up to 8 ADX V DAS HPR modules and 1 HPR-CHC combiner
- Mountable on wood poles with diameters from 10" to 30"

## ADXV-HPR-PSU-AC

*PSU-AC (AC Power Supply Unit)*



- 100 to 240V AC input
- 1.5kW Power Capacity
- Supports PSU alarming

## ADXV-HPR-PSU-DC

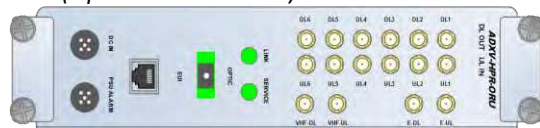
*PSU-DC (DC Power Supply Unit)*



- -36 to -72V DC input
- 1.5kW Power Capacity
- Supports PSU alarming

## ADXV-HPR-ORU

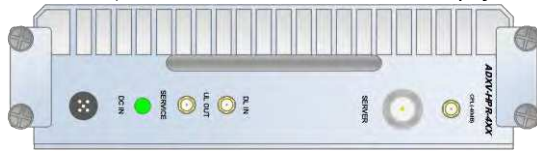
*ORU (Optical Remote Unit)*



- SMA (Female) RF ports
- SC/APC connector to receive optic and convert to RF
- Supports up to 6 remote modules
- Expansion UL and DL ports available to support additional remote modules
- Local GUI port available to log into local remote unit

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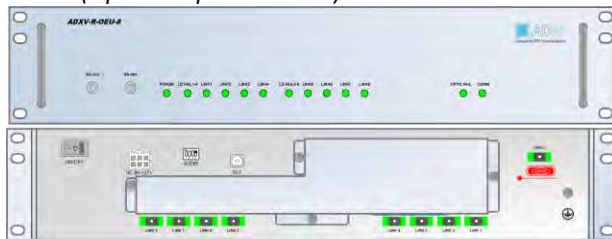
*HPR RAM (20W and 40W HPR Remote Amplifier Module)*



- SMA (Female) and 4.3-10 (Female) RF ports
- 43dBm of downlink composite output power on low band
- 46dBm of downlink composite output power on high band
- 40dB test port available at every band specific remote module

**ADXV-R-OEU-8**

*OEU-8 (Optical Expansion Unit)*



- Supports frequency range between 136 – 2690 MHz
- Operates with up to 5dBo optical loss between OEU and ORU
- Drives up to 8 additional ORUs
- Provides DAS coverage to remote building while minimizing equipment and fiber
- Supports system login at the OEU-8 via USB port

## Combining Options

### ADXV-R-CHC-U

*CHC-U (Enterprise RU Channel Combiner)*



- 4.3-10 (Female) input ports | 7/16 DIN (Female) output port
- Combines outputs of RAMs with minimal loss
- Wall or 19" Rack Mountable
- IP67 Outdoor Rated

### ADXV-HPR-CHC-U

*HPR-CHC-U (Universal Low Loss Channel Combiner)*



- 4.3-10 (Female) input and output ports
- Combines outputs of RAMs with minimal loss
- Installs into an ADXV-HPR-PMK, ADXV-HPR-CHA, or ADXV-HPR-RACK
- IP67 Outdoor Rated

### ADXV-HPR-CHC-U-LH

*HPR-CHC-U-LH (Universal Low/High Band Channel Combiner)*



- 4.3-10 (Female) input and output ports
- Dedicated sum port for low bands and high bands
- Installs into an ADXV-HPR-PMK, ADXV-HPR-CHA, or ADXV-HPR-RACK
- IP67 Outdoor Rated

## SUPPORTED FREQUENCY BANDS

| Frequency Band               | Frequency Range |                 | Remarks       |
|------------------------------|-----------------|-----------------|---------------|
|                              | Downlink        | Uplink          |               |
| VHF                          | 136 – 174 MHz   |                 |               |
| UHF                          | 380 – 512 MHz   |                 |               |
| Lower 700 MHz Commercial     | 728 – 746 MHz   | 698 – 716 MHz   | Lower A, B, C |
| Upper 700 MHz Commercial     | 746 – 757 MHz   | 776 – 787 MHz   | Upper C       |
| 700 MHz Public Safety        | 758 – 775 MHz   | 788 – 805 MHz   |               |
| 800 MHz Public Safety        | 851 – 861 MHz   | 806 – 816 MHz   |               |
| SMR800 Commercial + Cellular | 862 – 894 MHz   | 817 – 849 MHz   |               |
| PCS                          | 1930 – 1995 MHz | 1850 – 1915 MHz |               |
| AWS                          | 2110 – 2180 MHz | 1710 – 1780 MHz |               |
| WCS                          | 2345 – 2360 MHz | 2305 – 2320 MHz |               |
| BRS (TD-LTE)                 | 2496 – 2690 MHz |                 |               |

## RF PARAMETERS PER FREQUENCY BAND AT OUTPUT PORT OF ADXV-R-CHC-U

The RF Parameters listed in the tables below reflect the specifications at the sum port of the ADXV-R-CHC-U when combined with the remote units.

This table can be applied regardless of used technologies such as CDMA, WCDMA, LTE and GSM.

| Part name               | ADXV-R-337F | ADXV-R-33S8C             | ADXV-R-37P | ADXV-R-37A | ADXV-R-37W | ADXV-R-37BT  |
|-------------------------|-------------|--------------------------|------------|------------|------------|--------------|
| Band                    | 700 MHz     | SMR800 Commercial + Cell | PCS        | AWS        | WCS        | BRS (TD-LTE) |
| Max Output Power per RU | 33dBm       | 33dBm                    | 37dBm      | 37dBm      | 37dBm      | 37dBm        |
| ADXV-R-CHC-U (Loss)     | -0.5 dB     | -0.5 dB                  | -0.5 dB    | -0.5 dB    | -0.5 dB    | -0.5 dB      |
| Max Output              | 32.5dBm     | 32.5dBm                  | 36.5dBm    | 36.5dBm    | 36.5dBm    | 36.5dBm      |
| 1 Carrier               | 32.5dBm     | 32.5dBm                  | 36.5dBm    | 36.5dBm    | 36.5dBm    | 36.5dBm      |
| 2 Carriers              | 29.5dBm     | 29.5dBm                  | 33.5dBm    | 33.5dBm    | 33.5dBm    | 33.5dBm      |
| 4 Carriers              | 26.5dBm     | 26.5dBm                  | 30.5dBm    | 30.5dBm    | 30.5dBm    | 30.5dBm      |
| 8 Carriers              | 23.5dBm     | 23.5dBm                  | 27.5dBm    | 27.5dBm    | 27.5dBm    | 27.5dBm      |
| 16 Carriers             | 20.5dBm     | 20.5dBm                  | 24.5dBm    | 24.5dBm    | 24.5dBm    | 24.5dBm      |

| Part name               | ADXV-HPR-437F | ADXV-HPR-43S8C           | ADXV-HPR-46P | ADXV-HPR-46A | ADXV-HPR-45W | ADXV-HPR-46BT |
|-------------------------|---------------|--------------------------|--------------|--------------|--------------|---------------|
| Band                    | 700 MHz       | SMR800 Commercial + Cell | PCS          | AWS          | WCS          | BRS           |
| Max Output Power per RU | 43dBm         | 43dBm                    | 46dBm        | 46dBm        | 45dBm        | 46dBm         |
| ADXV-R-CHC-U (Loss)     | -0.5 dB       | -0.5 dB                  | -0.5 dB      | -0.5 dB      | -0.5 dB      | -0.5 dB       |
| Max Output              | 42.5dBm       | 42.5dBm                  | 45.5dBm      | 45.5dBm      | 44.5dBm      | 45.5dBm       |
| 1 Carrier               | 42.5dBm       | 42.5dBm                  | 45.5dBm      | 45.5dBm      | 44.5dBm      | 45.5dBm       |
| 2 Carriers              | 39.5dBm       | 39.5dBm                  | 42.5dBm      | 42.5dBm      | 41.5dBm      | 42.5dBm       |
| 4 Carriers              | 36.5dBm       | 36.5dBm                  | 39.5dBm      | 39.5dBm      | 38.5dBm      | 39.5dBm       |
| 8 Carriers              | 33.5dBm       | 33.5dBm                  | 36.5dBm      | 36.5dBm      | 35.5dBm      | 36.5dBm       |
| 16 Carriers             | 30.5dBm       | 30.5dBm                  | 33.5dBm      | 33.5dBm      | 32.5dBm      | 33.5dBm       |

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## SYSTEM SPECIFICATIONS

| Parameters                          |                | Specifications                                                                                                                                                                  |
|-------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Downlink Input Power Range          | POI            | 0~+48dBm                                                                                                                                                                        |
|                                     | POIL           | 0~+25dBm                                                                                                                                                                        |
| Gain                                | Uplink         | 0~30dB                                                                                                                                                                          |
|                                     | Downlink       | POI to RAM (2W): -15~33dB   POIL to RAM (2W): 8~33dB                                                                                                                            |
|                                     |                | POI to RAM (5W): -11~37dB   POIL to RAM (5W): 12~37dB                                                                                                                           |
|                                     |                | POI to HPR RAM (20W): -5~43dB   POIL to HPR RAM (20W): 18~43dB                                                                                                                  |
|                                     |                | POI to HPR RAM (40W): -2~46dB   POIL to HPR RAM (40W): 21~46dB                                                                                                                  |
| Maximum Composite Output Power (DL) |                | VHF/UHF: 25dBm   Low Band: 33dBm, 43dBm   High Band: 37dBm, 46dBm                                                                                                               |
| Maximum Composite Output Power (UL) |                | -15dBm (Typical)   +5dBm (Max)                                                                                                                                                  |
| Noise Figure                        |                | ≤ 5dB @ Max Gain (Center Frequency)                                                                                                                                             |
| VSWR (Medium Power)                 |                | < 1.3 : 1 @ BTS Interface Port   < 1.5 : 1 @ Internal Interface Port                                                                                                            |
| Optic Loss                          |                | 0~5 dBo                                                                                                                                                                         |
| System Delay                        |                | < 2us                                                                                                                                                                           |
| Spurious                            |                | Meet FCC rules, 3GPP TS 36.104, 3GPP2 C.S0010-C                                                                                                                                 |
| Optic Connectors                    |                | SC/APC (Green)                                                                                                                                                                  |
| Optic Wavelength                    |                | 1310nm for downlink, 1550nm for uplink                                                                                                                                          |
| Operating Temperature               |                | HE: 14 ~ 122°F (-10 ~ 50°C)   RU: -40 ~ 140°F (-40 ~ 60°C)                                                                                                                      |
| Operating Humidity                  |                | 5~95% RH                                                                                                                                                                        |
| Power Input                         | Head End       | ADXV-H-NMS-AC: 100 to 240V, 50-60Hz with battery backup function<br>ADXV-H-NMS-DC: -36V to -72V DC                                                                              |
|                                     | Remote Unit    | ADXV-R-PSU-AC: 100 to 240V, 50-60Hz with battery backup function<br>ADXV-R-PSU-DC: -36V to -72V DC<br>ADXV-HPR-PSU-AC: 100 to 240V, 50-60Hz<br>ADXV-HPR-PSU-DC: -36V to -72V DC |
| Network Management System           |                | Ethernet (RJ45)                                                                                                                                                                 |
| RF Connector                        | POI            | DIN (Female)   SMA (Female)   SMB (Female)                                                                                                                                      |
|                                     | POIL           | 4.3-10 (Female)   SMB (Female)                                                                                                                                                  |
|                                     | Remote Modules | 4.3-10 (Female)   SMA (Female)                                                                                                                                                  |
| Weather Resistance (Remote Modules) |                | IP66                                                                                                                                                                            |

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## WEIGHT, SIZE, AND POWER CONSUMPTION

| Product Name                    | Weight    | Size (W x H x D)      | Rack Units | Power Consumption | BTU/hrs |
|---------------------------------|-----------|-----------------------|------------|-------------------|---------|
| <b>Head End</b>                 |           |                       |            |                   |         |
| ADXV-H-NMS-AC                   | 20.9 lbs  | 19.0 x 7.0 x 19.7 in  | 4U         | 8.85W             | 30.19   |
| ADXV-H-NMS-DC                   | 20.0 lbs  | 19.0 x 7.0 x 19.7 in  | 4U         | 8.64W             | 29.48   |
| ADXV-H-ODU-4                    | 5.30 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 7.68W             | 26.20   |
| ADXV-H-POI-7L                   | 6.17 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 7.2W              | 24.56   |
| ADXV-H-POI-7U                   | 6.17 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 7.2W              | 24.56   |
| ADXV-H-POI-S8C                  | 6.17 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 7.2W              | 24.56   |
| ADXV-H-POI-P                    | 6.17 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 7.2W              | 24.56   |
| ADXV-H-POI-A                    | 6.17 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 7.2W              | 24.56   |
| ADXV-H-POI-W                    | 6.17 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 7.2W              | 24.56   |
| ADXV-H-POI-BT                   | 6.17 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 7.2W              | 24.56   |
| ADXV-H-POIL-VU                  | 6.61 lbs  | 2.6 x 6.85 x 17.0 in  | --         | 7.0W              | 23.88   |
| ADXV-H-POIL-78P                 | 5.00 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 6.45W             | 22.00   |
| ADXV-H-POIL-7L                  | 5.00 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 6.45W             | 22.00   |
| ADXV-H-POIL-7U                  | 5.00 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 6.45W             | 22.00   |
| ADXV-H-POIL-S8C                 | 5.00 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 6.45W             | 22.00   |
| ADXV-H-POIL-P                   | 5.00 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 6.45W             | 22.00   |
| ADXV-H-POIL-A                   | 5.00 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 6.45W             | 22.00   |
| ADXV-H-POIL-W                   | 5.00 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 6.45W             | 22.00   |
| ADXV-H-CHC-88-DL                | 4.40 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 0.96W             | 3.27    |
| ADXV-H-CHC-88-UL                | 4.40 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 0.96W             | 3.27    |
| ADXV-H-CHC-44M-DL               | 4.40 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 0.96W             | 3.27    |
| ADXV-H-CHC-44M-UL               | 4.40 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 0.96W             | 3.27    |
| ADXV-H-CHC-168-DL               | 7.71 lbs  | 2.6 x 6.85 x 17.0 in  | --         | 0.96W             | 3.27    |
| ADXV-H-CHC-168-UL               | 7.71 lbs  | 2.6 x 6.85 x 17.0 in  | --         | 0.96W             | 3.27    |
| ADXV-H-RACK                     | 4.2 lbs   | 19.0 x 1.73 x 19.0 in | 1U         | --                | --      |
| ADXV-H-AAI                      | 2.95 lbs  | 1.3 x 6.85 x 17.0 in  | --         | 13.4W             | 45.72   |
| <b>Mid Power Remote Modules</b> |           |                       |            |                   |         |
| ADXV-R-CHA                      | 15.43 lbs | 19.0 x 7.0 x 15.0 in  | 4U         | --                | --      |
| ADXV-R-CHA-SG                   | 2.20 lbs  | 19.2 x 7.0 x 2.8 in   | --         | --                | --      |
| ADXV-R-RACK                     | 7.40 lbs  | 19.0 x 2.6 x 13.8 in  | 1.5U       | --                | --      |
| ADXV-R-FAN-DC                   | 3.33 lbs  | 17.1 x 6.9 x 3.5 in   | --         | 9.0W              | 30.7    |
| ADXV-R-PSU-AC                   | 8.81 lbs  | 2.3 x 6.85 x 13.8 in  | --         | 5.36W             | 18.28   |
| ADXV-R-PSU-DC                   | 8.81 lbs  | 2.3 x 6.85 x 13.8 in  | --         | 5.1W              | 17.4    |
| ADXV-R-ORU                      | 8.81 lbs  | 2.3 x 6.85 x 13.8 in  | --         | 10.94W            | 37.32   |
| ADXV-R-25VU-N4X                 | 26.5 lbs  | 9.85 x 15.0 x 6.6 in  | --         | 66.06W            | 225.40  |
| ADXV-R-3378P-N4X                | 26.5 lbs  | 9.85 x 15.0 x 6.6 in  | --         | 60.19W            | 205.37  |
| ADXV-R-337F                     | 9.92 lbs  | 2.3 x 6.85 x 13.8 in  | --         | 38.29W            | 130.65  |
| ADXV-R-33S8C                    | 9.92 lbs  | 2.3 x 6.85 x 13.8 in  | --         | 43.634W           | 148.88  |
| ADXV-R-37P                      | 9.92 lbs  | 2.3 x 6.85 x 13.8 in  | --         | 57.33W            | 195.61  |
| ADXV-R-37A                      | 9.92 lbs  | 2.3 x 6.85 x 13.8 in  | --         | 56.06W            | 191.28  |
| ADXV-R-37W                      | 9.92 lbs  | 2.3 x 6.85 x 13.8 in  | --         | 53.0W             | 180.84  |
| ADXV-R-37BT                     | 9.92 lbs  | 2.3 x 6.85 x 13.8 in  | --         | 56.0W             | 191.07  |

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| High Power Remote (HPR) Modules |           |                       |    |        |        |
|---------------------------------|-----------|-----------------------|----|--------|--------|
| ADXV-HPR-CHA                    | 17.6 lbs  | 19.0 x 10.5 x 15.0 in | 6U | --     | --     |
| ADXV-HPR-RACK                   | 7.53 lbs  | 19.0 x 3.47 x 13.8 in | 2U | --     | --     |
| ADXV-HPR-PMK                    | 64.5 lbs  | 13.0 x 45.7 x 12.7 in | -- | --     | --     |
| ADXV-HPR-PSU-AC                 | 11.02 lbs | 2.36 x 10.3 x 17.8 in | -- | 5.4W   | 18.42  |
| ADXV-HPR-PSU-DC                 | 11.02 lbs | 2.36 x 10.3 x 17.8 in | -- | 5.2W   | 17.74  |
| ADXV-HPR-ORU                    | 11.02 lbs | 2.36 x 10.3 x 13.8 in | -- | 10.94W | 37.32  |
| ADXV-HPR-437F                   | 13.22 lbs | 2.75 x 10.3 x 17.8 in | -- | 129W   | 440.16 |
| ADXV-HPR-43S8C                  | 13.22 lbs | 2.75 x 10.3 x 17.8 in | -- | 145W   | 494.76 |
| ADXV-HPR-46P                    | 13.22 lbs | 2.75 x 10.3 x 17.8 in | -- | 264W   | 900.80 |
| ADXV-HPR-46A                    | 13.22 lbs | 2.75 x 10.3 x 17.8 in | -- | 259W   | 883.74 |
| ADXV-HPR-45W                    | 13.22 lbs | 2.75 x 10.3 x 17.8 in | -- | 269W   | 917.86 |
| ADXV-HPR-46BT                   | 13.22 lbs | 2.75 x 10.3 x 17.8 in | -- | 261W   | 890.56 |
| Combiners / Splitters           |           |                       |    |        |        |
| ADXV-R-CHC-U                    | 6.61 lbs  | 19.0 x 1.73 x 9.6 in  | 1U | --     | --     |
| ADXV-HPR-CHC-U                  | 15.08 lbs | 11.0 x 9.44 x 2.8 in  | -- | --     | --     |
| ADXV-HPR-CHC-U-LH               | 15.08 lbs | 11.0 x 9.44 x 2.8 in  | -- | --     | --     |
| Miscellaneous                   |           |                       |    |        |        |
| ADXV-R-OEU-8                    | 15.4 lbs  | 19.0 x 3.5 x 13.9 in  | 2U | 28W    | 95.53  |

## ORDERING INFORMATION

- HE Equipment

| Part Name         | Frequency Band            | Description                                                                                     |
|-------------------|---------------------------|-------------------------------------------------------------------------------------------------|
| ADXV-H-NMS-AC     |                           | ADX V DAS Head End Chassis + Network Management System + AC Power Supply Unit                   |
| ADXV-H-NMS-DC     |                           | ADX V DAS Head End Chassis + Network Management System + DC Power Supply Unit                   |
| ADXV-H-ODU-4      |                           | ADX V DAS Head End Optical Donor Unit Module (4 Ports)                                          |
| ADXV-H-POI-7L     | 700 MHz Lower A, B, C     | ADX V DAS Head End Point of Interface Module 700 MHz Lower A, B, C (0-48dBm)                    |
| ADXV-H-POI-7U     | 700 MHz Upper C + Band 14 | ADX V DAS Head End Point of Interface Module 700 MHz Upper C + Band 14 (0-48dBm)                |
| ADXV-H-POI-S8C    | SMR800 + Cell             | ADX V DAS Head End Point of Interface Module SMR800 (Commercial) + Cellular (0-48dBm)           |
| ADXV-H-POI-P      | PCS                       | ADX V DAS Head End Point of Interface Module PCS (0-48dBm)                                      |
| ADXV-H-POI-A      | AWS-1 + AWS-3             | ADX V DAS Head End Point of Interface Module AWS-1 + AWS-3 (0-48dBm)                            |
| ADXV-H-POI-W      | WCS                       | ADX V DAS Head End Point of Interface Module WCS (0-48dBm)                                      |
| ADXV-H-POI-BT     | BRS (TD-LTE)              | ADX V DAS Head End Point of Interface Module BRS (0-48dBm)                                      |
| ADXV-H-POIL-VU    | VHF / UHF                 | ADX V DAS Head End Point of Interface Module VHF/UHF (0-37dBm)                                  |
| ADXV-H-POIL-78P   | 700/800 MHz PS            | ADX V DAS Head End Point of Interface Module Public Safety 700/800 MHz (0-25dBm)                |
| ADXV-H-POIL-7L    | 700 MHz Lower A, B, C     | ADX V DAS Head End Low Power Point of Interface Module 700 MHz Lower A, B, C (0-25dBm)          |
| ADXV-H-POIL-7U    | 700 MHz Upper C + Band 14 | ADX V DAS Head End Low Power Point of Interface Module 700 MHz Upper C + Band 14 (0-25dBm)      |
| ADXV-H-POIL-S8C   | SMR800 + Cell             | ADX V DAS Head End Low Power Point of Interface Module SMR800 (Commercial) + Cellular (0-25dBm) |
| ADXV-H-POIL-P     | PCS                       | ADX V DAS Head End Low Power Point of Interface Module PCS (0-25dBm)                            |
| ADXV-H-POIL-A     | AWS-1 + AWS-3             | ADX V DAS Head End Low Power Point of Interface Module AWS-1 + AWS-3 (0-25dBm)                  |
| ADXV-H-POIL-W     | WCS                       | ADX V DAS Head End Low Power Point of Interface Module WCS (0-25dBm)                            |
| ADXV-H-CHC-88-DL  |                           | ADX V DAS Head End Channel Combiner Module for Downlink (8 Inputs + 8 Outputs)                  |
| ADXV-H-CHC-88-UL  |                           | ADX V DAS Head End Channel Combiner Module for Uplink (8 Inputs + 8 Outputs)                    |
| ADXV-H-CHC-44M-DL |                           | ADX V DAS Head End Channel Combiner Module for Downlink [2 * (4 Inputs + 4 Outputs)] (for MIMO) |
| ADXV-H-CHC-44M-UL |                           | ADX V DAS Head End Channel Combiner Module for Uplink [2 * (4 Inputs + 4 Outputs)] (for MIMO)   |
| ADXV-H-CHC-168-DL |                           | ADX V DAS Head End Channel Combiner Module for Downlink (16 Inputs + 8 Outputs)                 |
| ADXV-H-CHC-168-UL |                           | ADX V DAS Head End Channel Combiner Module for Uplink (16 Inputs + 8 Outputs)                   |
| ADXV-H-RACK       |                           | ADX V DAS Head End 19" 1U Rack supporting up to 2 ODU, CHC-88, or CHC-44M                       |
| ADXV-H-AAI        |                           | ADX V DAS Head End Auxiliary Alarm Interface Module (supports 1 HE / 4 RU / 6 Inputs)           |

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- **RU Equipment**

| Part Name                              | Frequency Band | Description                                                                                                                                       |
|----------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mid Power Remote Modules</b>        |                |                                                                                                                                                   |
| ADXV-R-CHA                             |                | ADX V DAS Remote Unit Chassis (supports 7 RU Modules) (rack or wall mountable)                                                                    |
| ADXV-R-CHA-SG                          |                | ADX V DAS Remote Unit Chassis Safety Guard                                                                                                        |
| ADXV-R-RACK                            |                | ADX V DAS Remote Unit 19" Rack (supports 2 RU Modules)                                                                                            |
| ADXV-R-FAN-DC                          |                | ADX V DAS Remote Unit Fan (required with more than 4 RAM)                                                                                         |
| ADXV-R-PSU-AC                          |                | ADX V DAS Remote Unit AC Power Supply Unit Module                                                                                                 |
| ADXV-R-PSU-DC                          |                | ADX V DAS Remote Unit DC Power Supply Unit Module                                                                                                 |
| ADXV-R-ORU                             |                | ADX V DAS Remote Unit Optical Remote Unit Module                                                                                                  |
| ADXV-R-25VU-N4X                        | VHF/UHF        | ADX V DAS NEMA-4X Remote Unit Public Safety VHF/UHF 25dBm Amplifier Module                                                                        |
| ADXV-R-3378P-N4X                       | 700/800 MHz PS | ADX V DAS NEMA-4X Remote Unit Public Safety 700/800 MHz 33dBm Amplifier Module                                                                    |
| ADXV-R-337F                            | 700 MHz        | ADX V DAS Remote Unit 700 MHz Lower A/B/C + Upper C 33dBm Amplifier Module                                                                        |
| ADXV-R-33S8C                           | SMR800 + Cell  | ADX V DAS Remote Unit SMR800 (Commercial) + Cellular 33dBm Amplifier Module                                                                       |
| ADXV-R-37P                             | PCS            | ADX V DAS Remote Unit PCS 37dBm Amplifier Module                                                                                                  |
| ADXV-R-37A                             | AWS-1 + AWS-3  | ADX V DAS Remote Unit AWS-1 + AWS-3 37dBm Amplifier Module                                                                                        |
| ADXV-R-37W                             | WCS            | ADX V DAS Remote Unit WCS 37dBm Amplifier Module                                                                                                  |
| ADXV-R-37BT                            | BRS (TD-LTE)   | ADX V DAS Remote Unit BRS 37dBm Amplifier Module                                                                                                  |
| <b>High Power Remote (HPR) Modules</b> |                |                                                                                                                                                   |
| ADXV-HPR-CHA                           |                | ADX V DAS High Power Remote Chassis (supports 6 HPR Modules) (rack or wall mountable)                                                             |
| ADXV-HPR-RACK                          |                | ADX V DAS High Power Remote 19" Rack (supports 1 HPR Module)                                                                                      |
| ADXV-HPR-PMK                           |                | ADX V DAS High Power Remote Pole Mount Kit (supports 8 HPR Modules)                                                                               |
| ADXV-HPR-PSU-AC                        |                | ADX V DAS High Power Remote AC Power Supply Unit Module                                                                                           |
| ADXV-HPR-PSU-DC                        |                | ADX V DAS High Power Remote DC Power Supply Unit Module                                                                                           |
| ADXV-HPR-ORU                           |                | ADX V DAS High Power Remote Optical Remote Unit Module                                                                                            |
| ADXV-HPR-437F                          | 700 MHz        | ADX V DAS High Power Remote 700 MHz Lower A/B/C + Upper C 43dBm Amplifier Module                                                                  |
| ADXV-HPR-43S8C                         | SMR800 + Cell  | ADX V DAS High Power Remote SMR800 (Commercial) + Cellular 43dBm Amplifier Module                                                                 |
| ADXV-HPR-46P                           | PCS            | ADX V DAS High Power Remote PCS 46dBm Amplifier Module                                                                                            |
| ADXV-HPR-46A                           | AWS-1 + AWS-3  | ADX V DAS High Power Remote AWS-1 + AWS-3 46dBm Amplifier Module                                                                                  |
| ADXV-HPR-45W                           | WCS            | ADX V DAS High Power Remote WCS 45dBm Amplifier Module                                                                                            |
| ADXV-HPR-46BT                          | BRS (TD-LTE)   | ADX V DAS High Power Remote BRS (TD-LTE) 46dBm Amplifier Module                                                                                   |
| <b>Combiners / Splitters</b>           |                |                                                                                                                                                   |
| ADXV-R-CHC-U                           |                | ADX V DAS Remote Unit/High Power Remote Universal Channel Combiner (700 MHz, SMR800 + Cellular, PCS, AWS, WCS, BRS)                               |
| ADXV-HPR-CHC-U                         |                | ADX V DAS Remote Unit/High Power Remote Universal Channel Combiner (700 MHz, SMR800 + Cellular, PCS, AWS, WCS, BRS) for HPR-PMK/HPR-CHA           |
| ADXV-HPR-CHC-LH                        |                | ADX V DAS Remote Unit/High Power Remote Low/High Universal Channel Combiner (700 MHz, SMR800 + Cellular / PCS, AWS, WCS, BRS) for HPR-PMK/HPR-CHA |
| <b>Miscellaneous</b>                   |                |                                                                                                                                                   |
| ADXV-R-OEU-8                           |                | ADX V DAS Optical Expansion Unit (supports 8 Remote Units)                                                                                        |

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