



# HARRIS MASTR<sup>®</sup> V DCP SIMULCAST SYSTEM

VHF, UHF, 700, 800, 900 MHz

## COST-EFFECTIVE WIDE-AREA COVERAGE

### KEY BENEFITS

Cost-effective way to increase coverage for systems with limited available frequencies

Continuous overlapping coverage enhances user-mobility

P25 Phase 1 and Phase 2 ready. Software upgradeable to P25 Phase 2

Remote capabilities for timing, setup, status, alignment verification and alarms

The Harris Distributed Control Point (DCP) Simulcast System provides an end-to-end digital solution based on the proven MASTR V hardware platform. It provides unmatched flexibility for those seeking large-scale, multiple-agency connectivity in coverage areas too large for a single, centralized transmitter.

### WIDE-AREA COVERAGE

MASTR V Simulcast Systems provide a reliable solution for wide-area coverage demands in frequency-constrained systems. Where there is a need to extend coverage to multiple agencies in a common territory, the MASTR V DCP Simulcast System from Harris is a flexible and proven solution to deliver increased capacity to enhance a customer's critical-communications needs.

### STANDARDIZED PLATFORM

- VIDA<sup>®</sup> Network Sentry for status and alarming
- Mini-mobility Exchange (MME) data handling
- Redundant GPS time base receivers
- Optional Intrusion Detection System
- Redundant Ethernet switches
- Router connectivity to VIDA network
- MASTR V Control Shelf and Modules
- Power supply units: 115 VAC or -48 VDC
- Linear Mode Transmitters for improved RF system performance

# PROVEN MASTR V PLATFORM

## GENERAL

<b>Size (Base Station)</b>	4 channels per 5 Rack Unit Shelf
<b>Open Rack Dimensions</b>	86.0 H x 20.5 W x 19.295 D in (218 H x 52 W x 49 D cm)
<b>Cabinet Dimensions</b>	86.0 H x 23.0 W x 31.5 D in (218 H x 58 W x 80 D cm)
<b>Power</b>	90-230 VAC or -48 VDC
<b>Ambient Temperature Range</b>	-22° F to +140° F (-30° C to +60° C)
<b>Humidity</b>	90% @ 122° F (+50° C)
<b>Altitude</b>	Operational: Up to 15,000 ft (4,572 m) Shippable: Up to 50,000 ft (15,240 m)

## TRANSMITTER

	VHF	UHF	700	800	900
<b>Frequency Range (MHz)</b>	150-174	380-400 403-430 450-470 470-494 494-520	764-776	851-870	935-941
<b>Rated Power Output (W)</b>	100	100	100	100	100
<b>RF Output Impedance (ohm)</b>	50	50	50	50	50
<b>Conducted Spurious and Harmonic Emissions (dBc)</b>	<-86	<-86	<-70	<-70	<-70
<b>Frequency Stability (ppm)</b>	<0.1	<0.1	<0.1	<0.1	<0.1
<b>Channel Spacing (kHz)</b>	12.5	12.5	12.5	12.5	12.5
<b>Synthesizer Step Size (kHz)</b>	1.25	1.25	6.25	6.25	6.25

## RECEIVER

	VHF	UHF	700	800	900
<b>Frequency Range (MHz)</b>	150-174	380-400 403-430 450-470 470-494 494-520	799-817	806-824	896-902
<b>Sensitivity, TIA-P25 (dBm)</b>	<-118	<-118	<-119	<-119	<-119
<b>RF Output Impedance (ohm)</b>	50	50	50	50	50
<b>Intermodulation Rejection, TIA-P25 (dB)</b>	>80	>80	>80	>80	>80
<b>Spurious and Image Rejection (dB)</b>	≥90	≥90	≥90	≥90	≥90
<b>Frequency Stability (ppm)</b>	<0.1	<0.1	<0.1	<0.1	<0.1
<b>Channel Spacing (kHz)</b>	12.5	12.5	12.5	12.5	12.5
<b>Synthesizer Step Size (kHz)</b>	1.25	1.25	6.25	6.25	6.25

## OPERATIONAL MODES

Mode	Modulation	Emission Designator
P25 Phase 1	C4FM	8K00F2D/8K00F1E*
P25 Linear Simulcast	WCQPSK	9K70D1W
P25 Phase 2	HDQPSK	9K80D7W

## REGULATORY DATA

Frequency Range (MHz)	Power Output (Adjustable) (W)	FCC Type Acceptance Number	Applicable FCC Rules	Industry Canada Certification Number	Applicable Industry Canada Rules	NTIA Certification Number
150-174	10-100	OWDTR-0065-E	22, 80, 90	3636B-0065	RSS-119	J/F 12/09628
380-400	10-100	NA	NA	NA	NA	J/F 12/09628
406.1-420	10-100	NA	NA	NA	NA	J/F 12/09628
420-430	10-100	OWDTR-0129-E	90	3636B-0129	RSS-119	NA
450-470	10-100	OWDTR-0130-E	22, 80, 90	3636B-0130	RSS-119	NA
470-494	10-100	OWDTR-0100-E	90	NA	NA	NA
494-512	10-100	OWDTR-0101-E	90	NA	NA	NA
764-776	10-100	OWDTR-0057-E	90	3636B-0057	RSS-119	NA
851-869	10-100	OWDTR-0053-E	90	3636B-0053	RSS-119	NA
935-940**	10-100	OWDTR-0156-E	90	3636B-0156	RSS-119	NA

\*VHF, 420-430, 450-470, 935-940

\*\*Pending regulatory approval

### About Harris Corporation

Harris Corporation is a leading technology innovator, solving customers' toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports government and commercial customers around the world.

Learn more at [harris.com](http://harris.com).

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