



# HARRIS MASTR<sup>®</sup> V BASE STATION

VHF, UHF, 700, 800, 900 MHz

**PROVEN, FUTURE-PROOF  
P25 PLATFORM**

The Harris MASTR V Base Station features an IP-based architecture engineered to scale with each organization's critical communication needs as they change over time.

## KEY BENEFITS

Scalable Internet Protocol (IP) network

Secure digital trunked voice and data

Supports Project 25 Common Air Interface (P25 CAI)

Seamless integration of Commercial-Off-The-Shelf (COTS) applications and equipment

Simplified user interface with compact and integrated hardware footprint

The MASTR V Base Station provides trunked communications to incorporate P25 digital voice and data. Compliant with the P25 CAI, this linear simulcast solution employs an on-board voice encoder/decoder to translate digital voice for immediate access through a user's existing network.

MASTR V delivers significant IP-based enhancements including seamless integration of COTS data applications and devices. It supports more economical routing and backhaul of network information and critical data redundancy.

This Harris MASTR V Base Station has a user-friendly software interface for easy setup, field upgrades and remote programming. Its compact, integrated hardware design allows up to eight channels per cabinet and simplifies maintenance and servicing.

# 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
<b>P25 Phase 1</b>	C4FM	8K00F1D/8K00F1E*
<b>P25 Linear Simulcast</b>	WCQPSK	9K70D1W
<b>P25 Phase 2</b>	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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