MASTR® V BASE STATION

VHF, UHF, 700 MHz, 800 MHz

DESIGNED TO MEET THE CHALLENGES OF MISSION-CRITICAL COMMUNICATIONS

The MASTR V provides the flexibility to commission a base station that will meet critical communication needs today and into the future. As network needs expand, the MASTR V station is ready to grow to meet the communication needs of the 21st century.

FEATURES

Provides secure digital trunked communications for mission-critical applications.

Supports the Project 25 Common Air Interface.

Operates on a secure, scalable Internet Protocol (IP) network.

Offers a software upgrade option to P25 Phase 2 (TDMA).

Offers Linear Simulcast for superior coverage.

Designed with compact and integrated hardware, allowing up to 8 channels per cabinet.

VERSATILE, EFFICIENT P25 DESIGN

The MASTR V incorporates P25 digital voice and data using a digital signal processor for maximum design versatility. P25 digital voice is translated through an on-board voice encoder/decoder in the station to allow immediate access to P25 communications through the user's existing network.

P25IP NETWORK EXPANSION

The MASTR V enables IP voice and data packets to be sent over a Harris P25IP network and be received at the base station. This setup enables all of the advantages of IP:

- Seamless integration of off-the-shelf IP data applications.
- Economical routing and backhaul of network data.
- Easy interconnection of peripherals and ancillary equipment such as mobile data terminals, printers, scanners, and video devices.
- Redundancy benefit of distributed IP architecture, one of the key requirements for most public safety users.

PROGRAMMING FLEXIBILITY

The easy-to-use software interface of the MASTR V provides flexibility, simplified setup, and easy field upgrades as well as remote programming. The functional design of the MASTR V station allows users to make changes quickly, easily, and affordably. Its modular design makes maintenance and servicing simple and fast.

PROVEN MASTR V PLATFORM

GENERAL SPECIFICATIONS

Size (Base Station):
4 channels per 5 Rack Unit Shelf

Open Rack Dimensions (H x W x D):
86.0 x 20.5 x 19.295 in.
(218 x 52 x 49 cm)

Cabinet Dimensions (H x W x D):
86.0 x 23.0 x 31.5 in.
(218 x 58 x 80 cm)

Power:
90-230 VAC or -48 VDC

Ambient Temperature Range:
-22 to +140°F (-30 to +60°C)

Humidity:
90% @ 122°F (+50°C)

Altitude:
- Operational: Up to 15,000 ft (4,572 m)
- Shippable: Up to 50,000 ft 15, 240 m)

TRANSMITTER

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

RECEIVER

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

OPERATIONAL MODES

Mode	Modulation	Emission Designator
P25 Phase 1	C4FM	8K00F1D
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
403-430	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

Technical specifications are subject to change without notice. Product sales are subject to applicable U.S. export control laws.

About Harris Corporation

Harris Corporation is a leading technology innovator that creates mission-critical solutions that connect, inform and protect the world. The company's advanced technology provides information and insight to customers operating in demanding environments from ocean to orbit and everywhere in between. Harris has approximately $8 billion in annual revenue and supports customers in 125 countries through four customer-focused business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems, and Critical Networks.

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HARRIS® TECHNOLOGY TO CONNECT, INFORM AND PROTECT™