

## MASTR® V BASE STATION

VHF, UHF, 700, 800, 900 MHz

The L3Harris MASTR V Base Station features an IP-based architecture engineered to scale with each organization's critical communication needs as they change over time.

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.

The L3Harris 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, FUTURE-PROOF P25 PLATFORM

#### 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

GENERAL	
Size (Base Station)	4 Channels per 5 Rack Unit Shelf
Open Rack Dimensions	86.0 H x 20.5 W x 19.295 D in (218 H x 52 W x 49 D cm)
Cabinet Dimensions	86.0 H x 23.0 W x 31.5 D in (218 H x 58 W x 80 D 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	900
Frequency Range (MHz)	150-174	380-400 403-430 450-470 470-494 494-520	764-776	851-870	935-941
Rated Power Output (W)	100	100	100	100	100
RF Output Impedance (ohm)	50	50	50	50	50
Conducted Spurious and Harmonic Emissions (dBc)	<-86	<-86	<-70	<-70	<-70
Frequency Stability (ppm)	<0.1	<0.1	<0.1	<0.1	<0.1
Channel Spacing (kHz)	12.5	12.5	12.5	12.5	12.5
Synthesizer Step Size (kHz)	1.25	1.25	6.25	6.25	6.25

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

OPERATIONAL MODES			
Mode	Modulation	Bit Rate (kbps)	Emission Designator
P25 Phase 1	C4FM	9.6	8K00F1D/8K00F1E*
P25 Phase 1 Simulcast HVD-FDMA	WCQPSK	9.6	9K70D1W
P25 Phase 2	H-DQPSK	12	9K80D7W
HVD-TDMA	DQPSK	19.2	18KD1W, 12K5D1W

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

#### L3Harris MASTR® V Base Station

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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	N/A	N/A	N/A	N/A	J/F 12/09628
406.1-420	10-100	N/A	N/A	N/A	N/A	J/F 12/09628
420-430	10-100	OWDTR-0129-E	90	3636B-0129	RSS-119	N/A
450-470	10-100	OWDTR-0130-E	22, 80, 90	3636B-0130	RSS-119	N/A
470-494	10-100	OWDTR-0100-E	90	N/A	N/A	N/A
494-512	10-100	OWDTR-0101-E	90	N/A	N/A	N/A
769-775	10-100	OWDTR-0159-E	90	3636B-0159	RSS-119	N/A
851-869	10-100	OWDTR-0158-E	90	3636B-0158	RSS-119	N/A
935-940	10-100	OWDTR-0156-E	90	3636B-0156	RSS-119	N/A

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



**L3HARRIS™**  
FAST. FORWARD.

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