



L3HARRIS™
FAST. FORWARD.

SKYMASTR BASE STATION

700 MHz, 800 MHz

GENERAL SPECIFICATIONS	
Single Rack Dimensions (H x W x D):	83 x 22 x 24 in. (211 x 56 x 61 cm) Station occupies 5 Rack Units
Power Supply for a Single Channel:	530W @ -48 VDC
Operating Temperature Range:	-22 to +140°F (-30 to +60°C)
Humidity:	95% noncondensing @ 86°F (+30°C)
Altitude:	Operational: Up to 15,000 ft (4,572 m)
Data Interface:	RS-232 SLIP RS-485 Serial

Note: All RF performance metrics are measured running OpenSky Trunking Protocol (OTP) or Narrowband OpenSky Trunking Protocol (NBOTP).

TRANSMITTER		
	700	800
Frequency Range (MHz):	769-775 Narrowband channels only	851-869 (SMR and NPSPAC)
Power Output (W):	100	100
RF Output Impedance (ohm):	50	50
Conducted Spurious and Harmonic Emissions (dB)	-70 minimum	-70 minimum
Frequency Stability (ppm):	0.1	0.1
Channel Spacing (kHz):	12.5/25	12.5/25

RECEIVER		
	700	800
Frequency Range (MHz):	799-805 Narrowband channels only	806-824 (SMR and NPSPAC)
RF Output Impedance (ohm):	50	50
Channel Spacing (kHz)	12.5/25	12.5/25
Sensitivity for 1% BER (dBm)		
Wideband OpenSky Protocol:	-112	-112
Narrowband OpenSky Protocol	-116	-116
Adjacent Channel Rejection (dB):	70	70
Intermodulation (dB):	75	75
Image Rejection (dB):	80	80
Frequency Stability (ppm):	0.1	0.1



The SkyMASTR Base Station provides wide-area coverage in the OpenSky® network. Base stations support digital voice and data, and are configured to provide multi-channel trunking capability. Unlike other cell-based trunking networks, the OpenSky architecture eliminates the need for a control channel, resulting in increased channel efficiency and greater channel access for mobile users. The modular design of SkyMASTR reduces maintenance costs and downtime as the controller and receiver modules can be replaced easily.

DIGITAL OPERATION

Vocoding Method:	Advanced MultiBand Excitation (AMBE®)
Data Rate:	19.2 kbps for 25 kHz channel spacing 9.6 kbps for 12.5 kHz channel spacing
Modulation:	4-Level GFSK

REGULATORY DATA

Frequency Range (MHz)	Output (W)	FCC Type Acceptance Number	Applicable FCC Rules	Industry Canada Certification Number	Applicable Industry Canada Rules
769-775	10-100	BV8MBS700A100	90	NA	NA
851-869	10-100	BV8MBS800A100	90	3670A-MBS800	RSS-119

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

Skymastr Base Station

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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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