KENWOOD

VIKING®

P25 Mission Critical

VM7000

Low Band High Power* ▪ VHF ▪ UHF-Low ▪ UHF-High ▪ 700/800 MHz
Analog ▪ P25 Phase 1 & 2 ▪ Viking16

With the VM7000 All-Band Multi-Deck Mobile, you can simultaneously receive and display up to four bands so you never miss a call. The "select" and "unselect" speakers give you the option for audio control similar to a dispatch console. KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



Features

- High Power options available (Low Band, VHF, and UHF-High)
- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- 1024 channels (2048 and 4096 options)
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- P25 GPS data (built in GPS)**
- MDC-1200 & GE-Star signaling
- P25 Conventional vote scan
- Single or Dual Remote-mount configuration
- External speaker
- Over-the-Internet-Programming (OTIP)
- Encryption
  - · ARC4™ software encryption; compatible with Motorola ADP™
  - · DES-OFB
  - · AES-256 (FIPS 140-2) Single and Multi-Key
  - · Over-the-Air-Rekeying (OTAR)
  - · VK5000 or Motorola KVL4000/KVL5000 Keyloaders
- WiFi
- Voice Recording and Instant Recording Replay (IRR)
- Text Messaging
- Custom Transmit Power Levels
- Cross-Band Repeat (Conventional-to-Conventional only for 2 decks)
- Multi-Band mode for roaming across P25 Trunking Systems (up to 3 decks)

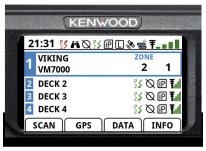
**Low Band High Power is analog 20 kHz mode only, multi-deck configuration only.*
***Refer to the Viking VM7000 operating manual for detailed requirements & conditions for proper GPS operation.*

Accessories

Complete line of accessories including microphones, speakers & antennas.
Download the accessory catalog at
https://info.efjohnson.com/viking-accessory-catalog/

Enhanced Control Head

- Larger display - 2.75" (36 x 60 mm)
- Resolution of 400 x 240 pixels
- Viewing angle of 140°
- Multi-color LCD + TX/RX (green/red/orange) LEDs
- D-Pad & more PF keys, dedicated emergency key & channel/volume control knobs
- Replaceable A/B/C button labels
- User selectable themes (8 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

- The VM7000 can also use the KCH-21RVM Handheld Control Head (HHCH)



Compatible With P25 Systems*

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- L3Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2
- All P25-standard systems

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.

Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.

Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either a direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).

TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

VM7000 Mobile Specifications

General		VHF	UHF	700/800 MHz	Low Band (110W)*	VHF (110W)	UHF (100W)
Frequency Range		136-174 MHz	Type 1: 450-520 MHz Type 2: 380-470 MHz	RX: 762-776, 851-870 MHz TX: 762-776, 792-806, 806-825, 851-870 MHz	39-50 MHz	136-174 MHz	450-520 MHz
Max. Channels Per Radio		1024 (2048 and 4096 options)					
Number of Zones		255					
Max. Channels Per Zone		255					
Channel Spacing	Analog	12.5/15/20/25[1]/30[1] kHz	12.5/25[1] kHz	12.5/25 kHz	20 kHz	12.5/15/20/25[1]/30[1] kHz	12.5/25[1] kHz
	Digital	12.5 kHz			Not applicable	12.5 kHz	
Power Supply		13.6 V DC ±15 %			13.4 V DC ±15 %		
Current Drain	Standby	1.2 A			1.3 A		
	RX	3.0 A			3.3 A		
	TX	14 A			28 A		
Operating Temperature		-22 °F to +140 °F (-30 °C to +60 °C)					
Frequency Stability [-22 °F to +140 °F (-30 °C to +60 °C), +77 °F Ref. (+25 °C)]		±1.0 ppm					
Dimensions (W x H x D) RF Deck + Front Head Unit (not including KCH-20RV)		6.73 x 1.89 x 7.24 in. (171 x 48 x 184 mm)		6.73 x 1.89 x 8.03 in. (171 x 48 x 204 mm)	7.01 x 2.56 x 13.84 in. (178 x 65 x 351.5 mm)		
Weight - RF Deck + Front Head Unit (not including KCH-20RV)		3.31 lbs (1.5 kg)		3.75 lbs (1.7 kg)	12.1 lbs (5.5 kg)		

Receiver		VM7730	VM7830	VM7930	VM7630H	VM7730H	VM7830H
Sensitivity	P25 Digital (5% BER)	-119 dBm (0.25 µV)			Not applicable	-119 dBm (0.25 µV)	
	Analog (12 dB SINAD)	-119 dBm (0.25 µV)					
Selectivity	P25 Digital	60 dB			Not applicable	60 dB	
	Analog @ 12.5 kHz	60 dB			Not applicable	60 dB	71 dB
	Analog @ 20/25 kHz	75 dB @ 25 kHz			85 dB @ 20 kHz	75 dB @ 25 kHz	81 dB @ 25 kHz
Intermodulation		80 dB					
Spurious Rejection		85 dB		87 dB	90 dB	85 dB	
Audio Distortion		2%			3%		
Audio Output Power		4 W/4 Ω (Remote Control Head: 3 W/4 Ω)			12 W/4 Ω (External Audio Output), 3 W/4 Ω (Remote Control Head)		
Modulation		FM, C4FM, H-DQPSK					

Transmitter		VM7730	VM7830	VM7930	VM7630H	VM7730H	VM7830H
RF Power Output		5W/50W	5W/45W – (Type 1: 450-485 MHz) 5W/40W – (Type 1: 485-520 MHz) 5W/40W – (Type 2: 380-470 MHz)	2W/30W (700 MHz) 2W/35W (800 MHz)	25W-110W		25W-100W
Spurious Emission		-73 dB	-75 dB	-80 dB	-80 dB		
FM Hum & Noise	Analog @ 12.5 kHz	45 dB		40 dB	Not applicable	45 dB	
	Analog @ 20/25 kHz	50 dB @ 25 kHz		45 dB	55 dB @ 20 kHz	50 dB @ 25 kHz	
Audio Distortion		2%					
Emission Designator		16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W		16K0F3E, 14K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W	16K0F3E	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W	
Modulation		FM, C4FM, H-CPM					

Mil Standard	810C	810D	810E	810F	810G
Low Pressure	500.1/ I	500.2/ I, II	500.3/ I, II	500.4/ I, II	500.5/ I, II
High Temperature	501.1/ I, II	501.2/ I, II	501.3/ I, II	501.4/ I, II	501.5/ I, II
Low Temperature	502.1/ I	502.2/ I, II	502.3/ I, II	502.4/ I, II	502.5/ I, II
Temp. Shock	503.1/ I	503.2/ I	503.3/ I	503.4/ I, II	503.5/ I
Solar Radiation	505.1/ I	505.2/ I	505.3/ I	505.4/ I	505.5/ I
Rain	506.1/ I, II	506.2/ I, II	506.3/ I, II	506.4/ I, III	506.5/ I, III

Mil Standard	810C	810D	810E	810F	810G
Humidity	507.1/ I, II	507.2/ II, III	507.3/ II, III	507.4	507.5/ II
Salt Fog	509.1/ I	509.2/ I	509.3/ I	509.4	509.5
Dust	510.1/ I	510.2/ I	510.3/ I	510.4/ I, III	510.5/ I
Vibration	514.2/ VIII, X	514.3/ I	514.4/ I	514.5/ I	514.6/ I
Shock	516.2/ I, II, V	516.3/ I, IV, V	516.4/ I, IV, V	516.5/ I, IV, V	516.6/ I, IV, V

International Protection Standard[3]	
Dust & Water	IP54, IP55[2]

Encryption Options	
Supported Encryption	AES, DES-OFB, ARC4 (VM7630H: Not applicable)
Encryption Key/ Radio	126 Common Key Reference (CKR), 126 Physical Identifier (PID). Compatible w/ Motorola Key Variable Loader
Encryption Frame Re-sync Interval	P25 CAI 360 MSEC
Encryption Keying	External Key Loader, OTAR
Mode	OFB-Output Feedback
Encryption Type	Digital
Key Erasure	Keyboard Command
Standards	FIPS 46-3, FIPS 81, FIPS 140-2, FIPS 197

[1] 25/30 kHz in VHF/UHF Bands are not included in the models sold in the USA or US territories. Analog measurements made per TIA 603 and specifications shown are typical.
[2] IP54: RF Deck with attached remote control head kit adapter; IP55: Remote-mount control head with attached interface kit adapter only.
[3] All interfaces must be fully sealed with appropriate covers unless they are connected to a genuine accessory.

All specifications are subject to change without notice. Please check the website for the latest version.
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