

VM7000

Low Band High Power² · VHF (with High Power option)

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

- 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)¹
- 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 KVL3000/KVL4000 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)

¹Refer 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/>

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).



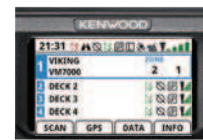
TrueVoice™ Noise Cancellation

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.



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) 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-21RV Handheld Control Head (HHCH)



Compatible With P25 Systems²

- 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

VM7000 Mobile Specifications

General		Low Band (110W) ²	VHF (110W)	VHF	UHF	700/800 MHz
Frequency Range		39-50 MHz	136-174 MHz	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
Max. Channels Per Radio		1024 (2048 and 4096 options)				
Number of Zones		255				
Max. Channels Per Zone		255				
Channel Spacing	Analog	20 kHz	12.5/15/20/25*/30* kHz		12.5/25* kHz	12.5/25 kHz
	Digital	Not applicable	12.5 kHz			
Power Supply		13.4 V DC ±15 %		13.6 V DC ±15 %		
Current Drain	Standby	1.3 A		1.2 A		
	RX	3.3 A		3.0 A		
	TX	28 A		14 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)		7.01 x 2.56 x 13.84 in. (178 x 65 x 351.5 mm)		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)
Weight - RF Deck + Front Head Unit (not including KCH-20RV)		12.1 lbs (5.5 kg)		3.31 lbs (1.5 kg)		3.75 lbs (1.7 kg)

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

Transmitter		VM7630H	VM7730H	VM7730	VM7830	VM7930
RF Power Output Power		25W-110W		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)
Spurious Emission		-80 dB		-73 dB	-75 dB	-80 dB
FM Hum & Noise	Analog @ 12.5 kHz	Not applicable	45 dB			40 dB
	Analog @ 20/25 kHz	55 dB @ 20 kHz	50 dB @ 25 kHz			45 dB
Audio Distortion		2%				
Emission Designator		16K0F3E	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W			16K0F3E, 14K0F3E,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

International Protection Standard^{***}

Dust & Water IP54, IP55^{**}
^{*}IP54: RF Deck + Front Head Unit of the mobile radio; IP55: Remote Control Head for the mobile radio.
^{**}All interfaces must be fully sealed with appropriate covers unless they are connected to a genuine accessory.

^{*}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.
²Low Band High Power is analog 20 kHz mode only, multi-deck configuration only.

All specifications are subject to change without notice. Please check the website for the latest version.
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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, V	516.3/ I, V	516.4/ I, V	516.5/ I, V	516.6/ I, V

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

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