KENWOOD

VM6000

VHF · UHF (High & Low) · 700/800 MHz

P25 Phase 1 & 2 · Viking16

Uncompromised quality and performance with public safety ergonomics, the 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
- Analog & P25 Conventional vote scan
- Remote mount only (Viking Control Head)
- Dual Viking Control Heads (option)
- External speaker
- Fixed control station
- WiFi
- Bluetooth
- Instant Recording Replay (IRR)
- Voice Recording
- Text Messaging
- Bluetooth Low Energy
- Custom Transmit Power Levels
- 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

[1]*Refer to the Viking VM6000 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/

Viking Control Head

- Public safety knobs & ergonomics
- High contrast transmissive color display for direct sunlight & night time viewing; not compromised by polarized sunglasses
- Resolution of 480 x 128 pixels
- Viewing angle of 120°
- User selectable themes (8 themes available)
- Day & night display options
- An optional KCH-21RV Handheld Control Head (HHCH) can be used with the VM6000 radio

Day - High Contrast

Night - High Contrast

Compatible With P25 Systems

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

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 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.

VM6730/6830/6930 Mobile Specifications

General		VM6730	VM6830	VM6930
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
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*/30* kHz	12.5/25* kHz	12.5/25 kHz
	Digital	12.5 kHz	12.5 kHz	12.5 kHz
Power Supply		13.6 V DC ±15 %		
Current Drain	Standby	1.2 A		
	RX	3.0 A		
	TX	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 + KRK-16B (not including VCH)		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 + KRK-16B (not including VCH)		3.44 lbs (1.56 kg)		3.88 lbs (1.76 kg)

Receiver		VM6730	VM6830	VM6930
Sensitivity	P25 Digital (5% BER)	-119 dBm (0.25 µV)		
	Analog (12 dB SINAD)	-119 dBm (0.25 µV)		
Selectivity	P25 Digital	60 dB		
	Analog @ 12.5 kHz	60 dB		
	Analog @ 25 kHz	75 dB		75 dB
Intermodulation		80 dB		
Spurious Rejection		85 dB		87 dB
Audio Distortion		2%		
Audio Output Power		RF Deck: 4 W/4 Ω Viking Control Head: 15W		
Modulation		FM, C4FM, H-DQPSK		

Transmitter		VM6730	VM6830	VM6930
RF Output Power		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		-73 dB	-75 dB	-80 dB
FM Hum & Noise	Analog @ 12.5 kHz	45 dB		40 dB
	Analog @ 25 kHz	50 dB		45 dB
Audio Distortion		2%		
Emission Designator		VM6730/6830: 16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W VM6930: 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

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

International Protection Standard

Dust & Water   IP54, IP56[1]

[1]IP54: RF Deck of the mobile radio; IP56: Remote Control Head for the mobile radio.

Encryption Options	
Supported Encryption	AES, DES-OFB, ARC4
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