

VM5000

VHF · UHF (High & Low) · 700/800 MHz
P25 Phase 1 & 2 · Viking16

With uncompromised quality and performance, the VM5000 has built-in speakers to take the complexities out of mission-critical communications.

Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- 1024 channels
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- GPS AVL data (built in GPS)¹
- MDC-1200 & GE-Star signaling
- Analog & P25 Conventional vote scan
- Dash mount (KCH-19 control head only)
- Remote mount
- Dual control heads
- Internal or external speaker
- Fixed control station
- WiFi (remote mount configuration only)
- Bluetooth (Future)
- Instant Recording Replay (IRR)
- Voice Recording
- Text Messaging
- Bluetooth Low Energy
- Custom Transmit Power Levels
- Encryption
 - ARC4™ software encryption; compatible w/Motorola ADP™
 - DES-OFB
 - AES-256 (FIPS 140-2) Single and Multi-Key
 - Over-the-Air-Rekeying (OTAR)

¹Refer to the Viking VM5000 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 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.



Basic Control Head

- Resolution of 422 x 154 pixel
- Viewing angle of 140°
- User selectable themes (8 themes available)
- Day & night display options



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

VM5730/5830/5930 Mobile Specifications

| General | | VM5730 | VM5830 | VM5930 |
|---|---------|---|--|--|
| 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 | | |
| 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 | 0.45 A | | |
| | RX | 2.3 A | | |
| | TX | 13 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) Radio w/Control Head, Projections not Included | | 6.73 x 1.89 x 6.93 in. (171 x 48 x 176 mm) | | 6.73x1.89x7.72 in. (171.0 x 48.0 x 196 mm) |

| Receiver | | VM5730 | VM5830 | VM5930 |
|---------------------|-------------------------|--|--|--------------------------------------|
| 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 | | 4 W/4 Ω (Remote Control Head: 3 W/4 Ω) | | |
| Modulation | | FM, C4FM, H-DQPSK | | |
| Transmitter | | VM5730 | VM5830 | VM5930 |
| 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 | | VM5730/5830: 16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W VM5930: 16K0F3E, 14K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W | | |
| Modulation | | FM, C4FM, H-CPM | | |

| Mil Standard | 810C | 810D | 810E | 810F | 810G |
|------------------|-------------|-------------|-------------|--------------|--------------|
| Low Pressure | 5001/ I | 5002/ I, II | 5003/ I, II | 5004/ I, II | 5005/ I, II |
| High Temperature | 5011/ I, II | 5012/ I, II | 5013/ I, II | 5014/ I, II | 5015/ I, II |
| Low Temperature | 5021/ I | 5022/ I, II | 5023/ I, II | 5024/ I, II | 5025/ I, II |
| Temp. Shock | 5031/ I | 5032/ I | 5033/ I | 5034/ I, II | 5035/ I |
| Solar Radiation | 5051/ I | 5052/ I | 5053/ I | 5054/ I | 5055/ I |
| Rain | 5061/ I, II | 5062/ I, II | 5063/ I, II | 5064/ I, III | 5065/ I, III |

| Mil Standard | 810C | 810D | 810E | 810F | 810G |
|--------------|----------------|---------------|---------------|--------------|-------------|
| Humidity | 5071/ I, II | 5072/ II, III | 5073/ II, III | 5074 | 5075/ II |
| Salt Fog | 5091/ I | 5092/ I | 5093/ I | 5094 | 5095 |
| Dust | 5101/ I | 5102/ I | 5103/ I | 5104/ I, III | 5105/ 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, IP55¹

¹IP54: RF Deck of the mobile radio; IP55: 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 |

*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. Digital measurements made per TIA 102CAAA and specifications shown are typical. All specifications are subject to change without notice. Please check the website for the latest version. V09.25.21 © Copyright 2021 EF Johnson Technologies, Inc. (E.F. Johnson Company is operating entity)

EF Johnson Technologies, Inc.

a JVCKENWOOD Company

1440 Corporate Drive, Irving, TX 75038-2401
Phone: 800.328.3911 · efishon.com