



Specifications for the *Plug & Play* KV1120PRO

Motorola PRO Series Encryption Modules

The **KV1120PRO** is a Professional, Digital, Highest Level Security option board made exclusively for **ALL Motorola Professional Radios**.

It features all the existing advantages of the **KV1120** series and more.

KV1120PRO Encryption Module

Operating Voltage:	3.3 – 5 VDC
Current Consumption from the Radio's Battery	<1.3mA @ standby mode
Operating Temperature:	-30° to +70°c
Storage Temperature:	-45° to +85°c
CodeKeys (Digital Private Lines)	4,294,967,296 Programmable, Simultaneously Receives up to 5 CodeKeys + Kill-Code
Encryption Group Combinations:	4.5 x 10⁷⁴ Programmable , selecting randomly one out of 1,048,576 algorithm processes every re-synchronization
ANI (Automatic No. Identification):	65,536 users, Programmable
Status Report:	256 statuses, Programmable
Delay before initial sync:	Programmable from 10 to 2,560 mSec
Memory:	Non Volatile EEPROM + FLASH for Upgrade
Audio Input / Output Level:	Automatic (Internally Adapted)
Audio Frequency Response:	300 – 3,500 Hz
Environment Protection:	Excellent Internal Protection Against Software Malfunction
Ciphered Algorithm:	Digital Process of Real Time Rolling Code, Random Variable Split Band with Random Dwell Times
Programming:	ANI, Status Report, Emergency, Delay, Encryption Group, Enable/Disable Kill Option, 5 Receive CodeKeys, 4 Transmit CodeKeys
Clear or Coded:	Automatically Selected (on Rx Mode)
Mute Option:	Programmable for Rx Mode
Synchronization & Re-Synchronization:	Automatic (Variable Cycle Time)
Dimensions:	For Standard Radios: 44 X 53 [mm] For Prime (Full Keypad) Radios: 44 X 59 [mm]
Installation:	Real Plug & Play (Flexible Connector)

KvpPRO Programming Software

The KvpPRO software is used to re/program the **KV1120PRO** modules and embed various user-defined parameters in its EEPROM. It uses the Motorola's Recommended SBEP Interface available in the Professional Radios.

CodeKeys: (Digital Private Lines)	More than 4 billion 5 for Receive, 4 for Transmit.
ANI:	5 Digits 00000 - 65535.
Status Report:	3 Digits 000 - 255.
Serial Number (Alpha-Numeric) Report:	12 Digit S/N (targeted for the radio's S/N)
Kill Option:	Disable / Enable.
Standby Mode:	Clear / Mute
Delay before initial Synchronization:	10mS - 2560mS.
Scrambling Groups:	4.523×10^{74} .
Date & Time:	International date format 24 hour.
General:	All programming data conditions are automatically acknowledged. User-selectable loading of configuration files

KVC12 Over The Air Controller (OTAC) – Specifications

The OTAC (includes the KvcCAD SW) is used to Monitor/Display/Kill Radios (by ANI's.)

ANI:	00000 – 65,535 & Names
CodeKeys: (DPL's)	Simultaneously monitors up to 12 CodeKeys
Status Report:	000 – 255
Serial Number Report:	12 Digit S/N (targeted for the radio's S/N)
Emergency Alert:	Audio + Visual (Selected Sounds)
Data & Time:	International Date Format 24 hours
Edit:	Edit Names, Units & Colors (16 X 8 colors)
Storage & Report:	ANI & Name, Status, Time & Date, Emergency & Kill Option
Verification:	CodeKey, ANI, Status & Emergency Conditions are Automatically Verified
Kill Option:	Verified & Acknowledged
Dimensions:	170 X 150 X 70 [mm]

Specifications are subject to change without notice