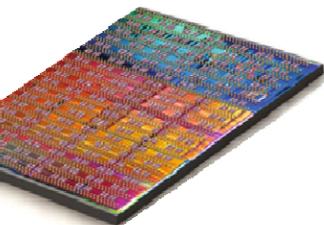# Secure Communication for a Safer World

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Secure voice communications are critical to protecting private information and confidential conversations from casual eavesdroppers, the public, business competitors, criminals, terrorists and enemies. Add-on voice security modules installed into mobile and portable two-way radios can be used to keep confidential information away from unwanted listeners to protect businesses, property and personnel. Perhaps their greatest value is in protecting lives – those of soldiers, police, public safety, government workers, employees and our citizens who count on us to protect them. Once installed into the radio, the user has the option of speaking in "secure" mode when voice privacy is needed to keep vital information private. There are different levels of voice security available, which can be selected based upon the level of threat that eavesdropping may present to operations. The level of security can be medium, high or very high – dependent on the sophistication of the unintended listener and the importance of keeping communications confidential.

))) D756 (((Very High Level Digital Encryption

The D756 digital encryption module for two-way radios provides a very high level of voice security, employing a proprietary AES encryption algorithm with the powerful combination of 72 quadrillion digital keys to prevent breeches of communication by the most determined adversaries. The D756 series utilizes a digital communication channel in an analog radio system that can consist of both portable and mobile radios to provide a cost-effective voice privacy solution for commercial entities, police departments, public safety, drug enforcement, governments and militaries to prevent eavesdropping on critical communications by unwanted listeners, drug smugglers, rogue terrorists, criminals or enemies.

When the radio user is operating in secure mode, the eavesdropper will not hear any vocalization; instead they will hear only "white noise" when speech is being transmitted. By using a digital communication channel in an analog radio communication system, voice quality is not compromised, providing for clear speech when the radio is used in secure mode. The module features background noise rejection which enhances the clarity and coherence of the message between the sender and the intended listener.

The D756 voice security module installs easily into a variety of portable and mobile radios.

It offers plug-in installation into Motorola MOTOTRBO, Motorola Professional, Motorola Commercial, ICOM, Vertex Standard, and Hytera brands of radios and soldering installation in most other brands of radios with closed architecture. It provides a very high level of voice security in radio systems utilizing conventional analog repeaters in the 12.5/25 kHz radio spectrum. The D756 works in Simulcast, LTR, and voting systems as well as dispatch systems that feature Check, PTT-ID, OTAR, and GPS location information. The D756 digital encryption module is easily programmed via a personal computer (PC). It offers a programmable "autodetect" option, enabling automatic receive operation while the radio is in secure mode. Other options include compatibility with any frequency inverters using analog keys and compatibility with double-inversion voice band scramblers using analog keys. The D756 is available with powerful, advanced digital encryption up to AES256 for the utmost protection against adversaries who threaten the safety and security of life and property.

))) D700 (((High Level Digital Encryption

The D700 voice security module for two-way radios uses advanced digital encryption to provide high level protection of radio communications from eavesdropping by unwanted listeners and the most determined adversaries.

It uses a highly secure AES encryption algorithm with over four billion key combinations to provide discreet and confidential communications. The D700 module is a cost-effective solution for high-end voice encryption for portable and mobile radios used by commercial entities, police departments, public safety organizations, and militaries as a defense against unauthorized interception of private and sensitive voice transmissions by casual eavesdroppers or the most determined listeners that may be a threat to property or life.

The D700 series module ensures that sensitive communications are safe and secure, utilizing a sophisticated encryption algorithm to thwart attacks on private communications. When an eavesdropper attempts to listen to an encrypted conversation, the speech transmission will not be heard at all. There will be no vocalization; instead the unwanted listener will hear only "white noise". Digitization of the sender's speech also ensures that the encrypted voice transmission will be clear and easy to understand, which is often vital in emergency situations and military operations.

By using a digital communication channel within an analog radio communication system, the D700 is able to reject background noise, further enhancing speech quality during chaotic or mission critical operations. The D700 module offers simple, plug-in installation into Motorola MOTOTRBO, Motorola Professional, Motorola Commercial, ICOM, Vertex Standard, and Hytera brands of two-way portable and mobile radios. For other brands of radios using closed architecture, the module may be soldered into the radio. Programming of the module is performed easily via a personal computer (PC).

The D700 digital encryption module provides for high level voice security in radio systems utilizing conventional analog repeaters in the 12.5/25 kHz radio spectrum. It can be used in Simulcast, LTR, and voting systems, as well as dispatch systems that offer Check, PTT-ID, OTAR, and GPS location information.

The D700 module offers a programmable "autodetect" option, enabling automatic receive operation while the radio is operated in secure mode. Other optional capabilities include compatibility with frequency inverters using analog keys and compatibility with double-inversion voice band scramblers using analog keys.

(((D70))) Medium Level Digital Encryption

The D70 series digital encryption module is designed to provide medium level protection of two-way radio communication from eavesdropping by unwanted listeners in order to keep confidential information private and safe. The D70 module utilizes AES digital encryption with the strength of over one million key combinations to protect from attacks on confidential conversations. As an investment in safety and privacy, it provides an affordable balance of cost and security for mid-level voice encryption for use by commercial users, police departments, public safety organizations and other organizations as a defense against unauthorized interception of private and sensitive voice transmissions by casual or clever and determined listeners.

When the radio is used in secure mode, if an eavesdropper attempts to listen to a conversation, they will not hear any vocalization. There will be an absence of speech referred to as "white noise". As the D70 uses a digital communication channel in an analog radio communication system, it also rejects background noise, helping the receiver to clearly hear and understand the communication. The D70 module offers a programmable "autodetect" option, enabling automatic receive operation while the radio is operated in secure mode.

The D70 module can be used in both portable and mobile radio systems that utilize conventional analog repeaters operating in the 12.5/25 kHz radio spectrum. It can be used a variety of radio networks including Simulcast, LTR, and voting systems. Plus, it is compatible with dispatch systems featuring Check, PTT-ID, OTAR, and GPS location information. Other options include compatibility with frequency inverters using analog keys as well as compatibility with double-inversion voice band scramblers using analog keys.

The D70 is designed for simple plug-in installation into Motorola Professional, Motorola Commercial, ICOM, Vertex Standard, and Hytera radios or can be soldered into most other brands of radios of "closed architecture". Once installed, programming for the D70 module is performed easily via a personal computer (PC).

Features	D756	D700	D70
Security Level	Very High	High	Medium
Digital Encryption	AES	AES	AES
Key Combinations	> 72 quadrillion	> 4 billion	> 1 million
Compatible with Conventional 12.5/25 kHz Analog Repeaters	Yes	Yes	Yes
Works in Simulcast, LTR and Voting Systems	Yes	Yes	Yes
Works in Dispatch Systems with Check, PTT-ID, OTAR and GPS	Yes	Yes	Yes
Speech Transmission in form of "White Noise"	Yes	Yes	Yes
Programmable Auto Receive Operation "Autodetect"	Yes	Yes	Yes
Optional Compatibility with Frequency Inverters with Analog Keys	Yes	Yes	Yes
Optional Compatibility with Double Inversion Voice Band Scramblers	Yes	Yes	Yes

Plug-In Board Model	D756	D700	D70
MOTOTRBO 3000 Series	D756-MA	D700-MA	D70-MA
Motorola Professional Radios	D756-GP or D756-GM	D700-GP or D700-GM	D70-GP or D70-GM
Motorola Commercial Radios	D756-CP or D756-CM	D700-CP or D700-CM	D70-CP or D70-CM
ICOM Radios	D756-IC	D700-IC	D70-IC
Vertex Standard Radios	D756-VX	D700-VX	D70-VX
Hytera Radios	D756-HD	D700-HD	D70-HD

Solder-in modules available for most other radio brands and models.