

CoMIRS Radio Feature Requirements

The Commonwealth of Massachusetts Executive Office of Technology Services and Security (EOTSS) is engaged in a multi-year project to modernize the Commonwealth of Massachusetts Interoperable Radio System (CoMIRS). The project will be accomplished in stages utilizing both legacy CoMIRS subsystems and new P25 subsystems during the build-out.

The fundamental goal of the CoMIRS Modernization Project is to provide a reliable, long-term P25 compliant communications tool for public safety personnel to communicate seamlessly across public safety disciplines and operational jurisdictions.

To ensure that CoMIRS user radios function appropriately throughout the modernization project stages and after completion, the Interoperable Communications Bureau (ICB) developed a list of required and recommended features for all CoMIRS subscriber radios.

As of **May 1, 2021** all radios submitted for provisioning on CoMIRS must include the **required** features shown below.

In limited circumstances the ICB will consider requests for exemption from this requirement. Written requests for exemption must be made to CoMIRS@mass.gov prior to purchasing radios or submitting radios for provisioning.

Feature		Description
Required	700/800 MHz Operation (764-870 MHz)	CoMIRS operating frequency range
Required	Portable radio output power 1-3 watts	Programmable output power to comply with CoMIRS design parameters and F.C.C. authorizations
Required	Mobile radio output power 10-35 watts	Programmable output power to comply with CoMIRS design parameters and F.C.C. authorizations
Required	Base radio output power 10-35 watts	Programmable output power to comply with CoMIRS design parameters and F.C.C. authorizations
Required	Minimum 1,000 mode capacity	Capacity required to program present and future CoMIRS talk groups and conventional channels
Required	Minimum 14-character backlit display	Allows standardization of talk group and channel names on radio display
Required	Zone programming with 16 modes per zone (mixed trunked talkgroups and conventional channels)	Allows standardization of radio operation across radio manufacturers and radio models
Required	Operation on Conventional Systems (Analog and P25 Phase 1 modulation)	Enables radio operation on "off-network" channels available to CoMIRS users for tactical and Interoperable communications

Required	Operation on Motorola SmartZone Type II Trunking Systems (Analog and P25 Phase 1 modulation)	Enables radio operation on statewide legacy CoMIRS trunked subsystems
Required	Operation on Project 25 Digital Trunking Systems (Phase 1 FDMA and Phase 2 TDMA modulation)	Enables radio operation on present and future CoMIRS P25 trunked subsystems and CoMIRS P25 trunked partner subsystems
Required	Project 25 Radio Authentication	Radio feature to enable authentication of subscriber radios for operation on P25 trunked radio systems to prevent unauthorized access
Recommended	Project 25 GPS Location Services	Radio feature to enable reporting subscriber radio location over P25 trunked systems
Recommended	Project 25 Over-The-Air-Programming	Radio feature to enable remote radio programming over P25 trunked systems
Recommended	Bluetooth Capability	Radio feature enables wireless interface between portable radio and Bluetooth radio accessories
Recommended	Operation with digital vehicle repeater system (If DVR is utilized)	Required to interface DVR to mobile radio. Portable radio feature required for full featured operation through the DVR

CoMIRS Encryption Standard

Encryption is not required. If CoMIRS user chooses to implement encryption, the P25 standards below are required.

Project 25 AES 256 bit encryption with multiple keys and Over-the-air-rekeying