



PROFESSIONAL



# CM60 P25 PHASE 1 DIGITAL SERIES MOBILES

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P25 NETWORK TERMINAL SOLUTIONS

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SMALLEST P25 25 WATT FORM FACTOR

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# HIGHLY VERSATILE

## VOICE APPLICATIONS

The CM60 Series from GME is P25 Phase 1 mixed mode compliant mobile. Offering Local, Extended or Remote control configurations maximizing vehicle installation flexibility. In particular, the GME high-end User Interface Control (UIC) model UIC600B available in black or UIC600G in high-visibility green provides unique user options when compared to many other offerings.

The controller is a full keypad device using OLED screen technology to provide multiple-line, high-visibility characters, which are easily seen in all lighting conditions. The unit is fitted with a 4.9 foot heavy-duty curly cord and delivers a powerful 2 watts of audio. The dynamic rear bollard and mounting cradle enable unique user functions to be activated by the hang-up action, and add to the in-vehicle mounting security. The CM60 series models are available in VHF 136–174MHz, UHFL 400–470MHz and UHF 450–512MHz bands.

All models are TIA-102 Class A compliant devices and are CAP certified. Via software license keys you can enable P25 Conventional, Trunking and our software security suite that supports DES/AES-256 encryption. An optional FIPS 140-2 Level One encryption module is also available as well as publicly listed APIs for third party integrators.

CM60 models are also available as dedicated P25 data transceivers ready to be deployed into various Telemetry and SCADA applications using an AT terminal interface. Utilizing the software security suite, all payloads can be transmitted over the air in a fully end-to-end encrypted environment.

## DATA APPLICATIONS

**The CM60 models are P25 ready and compatible with existing analog systems using standard signaling options such as 5-tone selective call, CTCSS, DTMF, MDC1200 and RSSI signal strength voting.**

The CM60 via software key(s) can be cost effectively upgraded from conventional to trunking or to support AES/DES encryption and or data applications.

Optional interface controls mean a vehicle installation is quick, easy and versatile. The CM60 models offer a local mount using the standard MP600B microphone or a choice of two remote mount configurations;

1. The innovative UIC600 control head with wide-angle OLED screen and powerful on board audio
2. The compact remote RH006 head and MP600B for more covert type installations

CM60 models are available in a wide choice of frequency bands and power settings.

For further information, please visit [www.gmeprofessional.com](http://www.gmeprofessional.com)

The highly versatile CM60D series P25 Data Terminal provides robust industrial communications for a wide range of applications including Irrigation Control, Environmental Monitoring, Security Management and Weather Data Reporting.

A direct RS232 serial interface supports a variety of RTU/PLC Data Logger Connections for clear or AES256 encrypted data transfer over Phase 1 P25 Conventional or Trunked Networks.

A compact, fully integrated RF transceiver / data modem, the GME CM60D series is designed to deliver reliable communications in the harshest of environments.

# “LOCAL, EXTENDED OR REMOTE CONTROL”

## Integrator Friendly, Custom Solutions

Have unique requirements? Let's talk about how we can help.

## Analog to Digital Migration

Migrate at your own pace and future-proof your communications system, (UHF and VHF options available).

## APCO P25 Compliant - Open Standard

Feel confident knowing you have a compliant network that meets all APCO P25 published standards so that you are not locked into one brand or radio and your interoperability will not be compromised.

## Open APIs for Extensibility

Keeping with the P25 open-standards, all the Application Programming Interfaces (APIs) developed at GME are publicly available to help third party developers get up and running with integrating and expanding their P25 platform.

## Security

Choose your level of Data Encryption Standard (DES) encryption (56 bit), or Advanced Encryption Standard (AES) encryption at up to 256 bits key length.

## IP Data Over P25

Support for SNDPC allows TCP/IP data to be routed over your trunked network to the terminal's peripheral interface, enabling integration with IP based short data applications such as Tier 2 AVL or Message Queuing Telemetry Transport (MQTT).

## Compact Radio Chassis

Using GME's unique slide and lock mounting kit makes installation into tight areas easier to complete and provide assurances that all connectors are tightly fit.

## CM60 Series UIC600 Controller

Industry first high-visibility OLED display handset with integrated 2 watt speaker.

## Data, Telemetry and SCADA

- ▼ SNDPC support for TCP/IP Data on Trunked Systems
- ▼ AT command & interface
- ▼ Conventional data
- ▼ GPIOs for external control

Local control model



Base unit for Extended and Remote models



Data and SCADA models



Fist Microphone  
**MP600B**



Black UIC control head  
**UIC600BC**



Hi-vis green UIC control head  
**UIC600GC**



Remote head and fist microphone  
**RH006 + MP600B**



## VOICE MODEL CONFIGURATIONS

LOCAL CONTROL with **MP600B** fist microphone

CM60-V25L | CM60-UL25L | CM60-U25L

PROJECT EXTENDED CONTROL with colored UIC control head

CM60-V25P | CM60-UL25P | CM60-U25P

STANDARD EXTENDED CONTROL with black UIC control head

CM60-V25S | CM60-UL25S | CM60-U25S

REMOTE CONTROL with **RH006** remote head and **MP600B** fist microphone

CM60-V25R | CM60-UL25R | CM60-U25R

## DATA, TELEMETRY AND SCADA MODELS

CM60-V25D | CM60-UL25D | CM60-U25D

# SPECIFICATIONS

General	
RF Performance	Compliant with AS/NZS 4295   AS/NZS 4365 (UHF Models)   ETS 300-086   TIA-102-C   TIA-603-C   IC RS-199   FCC PARTS 15, 22, 74, 80, 90   90.210
Frequency Band	VHF 136 to 174MHz   UHF 400 to 470MHz   UHF 450 to 520MHz (380 - 400MHz*)
Number of Channels	Standard 1072 (max. 2000)
Number of Zones	50
Channel Spacing	12.5kHz
Channel Steps	12.5kHz, 6.25kHz, 5kHz, 2.5kHz
Frequency Stability	±1.5ppm for -20°C to 60°C or -4°F to 140°F
Modulation	FM, C4FM
Antenna Impedance	50Ω
Antenna Connector	BNC
Supply Voltage	13.8V negative earth
Operating Voltage Range	10.8V to 15.6V
Reverse Polarity Protection	Diode
Over Voltage Protection	18V crowbar
Fuse	2 x 10A blade type in-line fuse
Current Consumption Voice	RX muted 220mA   RX full audio 1A   TX 6A (25W)
Current Consumption Data Telemetry	VHF/UHF RX 160mA
Transmitter	
Power Output	25W, 10W, 5W, 1W selectable per channel + dedicated 5W models
Transmit Duty Cycle	4:1 for 25W output
Emission Designators	11K2F3E   8K10F1E   8K10F1D   8K10F1W   8K10F7E   8K10F7D
Modulation Type	C4FM, FM, DC coupled, DSP audio processing
Deviation Limiting	5kHz, 2.5kHz at +20dB AF limiting
TX Audio Frequency Response	+6dB/octave, +1dB/-3dB, 300Hz to 3kHz
AF Distortion	3% below limiting
TX Audio Residual Noise and Hum	-40dB
Spurious Emissions	-36dBm
Adjacent Channel Power	-60dBc

Receiver	
Circuit Type	Double Conversion Super heterodyne, DC coupled, DSP audio processing
IF Frequencies	21.4MHz (VHF)   38.85MHz (UHF), 450kHz
Analog Sensitivity	-121dBm for 12dB SINAD unweighted
Digital Sensitivity	-121dBm C4FM for 5% BER
Adjacent Channel Selectivity	60dB
Spurious Rejection	80dB
Intermodulation Rejection	75dB
Blocking	100dB
RF Switching Bandwidth	VHF 38MHz   UHF 70MHz   UHF Lo 77MHz
Conducted Spurious Emissions	-80dBm
Audio	
RX Audio Frequency Response	+6dB/octave, +1dB/-3dB, 300Hz to 3kHz
RX Audio Residual Noise and Hum	-40dB
Audio Rated Power - Internal Speaker	3W
Audio Rated Power - External Speaker	3W into 4Ω
Audio Rated Power - UIC600	2W into 8Ω
Mechanical	
Dimensions	1.14"(H) x 5" (W) x 6.41"(D) 28.9m m(H) x 127mm (W) x 162.8mm (D)
Weight of Chassis	1.37 pounds   620g
MIL Spec	810 C, D, E
Temperature Range	-20° C to 60° C

\*380 - 400MHz band may be available on special order. Please contact Etherstack for availability.

New products submitted for FCC certification after January 1, 2011 are restricted from being granted certification at 25KHz for United States – State & Local Markets only.

CM-60 radio is restricted to 12.5kHz operation only and does NOT support 25kHz in the VHF and UHF Bands (excluding T-Band). This applies to customers under Rule Part 90.

Specifications are subject to change without notice.

The specifications set forth herein are issued as a guide only and shall not form part of any contract without the express written authorization of GME.

Refer to <https://www.gme.net.au/warranty-statement.aspx> for details on the CM60 limited warranty in North America.



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