



PROFESSIONAL



CM60 P25 DIGITAL SERIES MOBILES

P25 NETWORK TERMINAL SOLUTIONS

SMALLEST P25 25 WATT FORM FACTOR



HIGHLY VERSATILE

VOICE APPLICATIONS

The CM60 Series from GME is P25 Phase 1 mixed mode compliant mobile. Offering Local, Extended or Remote control configurations maximising 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 1.5m 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, UHF 400–480MHz and UHF 450–520MHz bands, with a dedicated 5 watt model in the UHF and UHF 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 available as dedicated P25 data ready transceivers ready to be deployed into various Telemetry and SCADA applications using an AT terminal interface. Utilising the software security suite, all payloads can be transmitted over the air in a fully end-to-end encrypted environment. All models are dual compliant to AS/NZS 4295, AS/NZS 4365 (UHF models), FCC Parts 90/15 and conform to TIA-102 Standards.

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.

A dealer software key allows a cost effective customer upgrade for operation on conventional or trunked P25 networks using AES/DES encryption, AVL tier 2 and data. All CM60 versions can be fitted with a GME GPS1 antenna for position reporting in analog or P25 modes.

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 including dedicated 5W versions in the UHF bands.

For further information, please visit 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 SNDCP 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 area's easier to complete and provide assurances that all connectors are a tight fit.

CM60 Series UIC600 Controller

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

Data, Telemetry and SCADA

- ▼ SNDCP support for TCP/IP Data on Trunked Systems
- ▼ RS2485 – RS232/RS485 Converter
- ▼ RS2422 – RS232/RS422 Converter

Protocols Supported

- ▼ DNP3 (REGISTERED)
- ▼ MODBUS (REGISTERED)
- ▼ PakBus (REGISTERED)
- ▼ IEC 60870-5

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-UL5L | CM60-U5L | CM60-V25L | CM60-UL25L | CM60-U25L

PROJECT EXTENDED CONTROL with coloured UIC control head

CM60-UL5P | CM60-U5P | CM60-V25P | CM60-UL25P | CM60-U25P

STANDARD EXTENDED CONTROL with black UIC control head

CM60-UL5S | CM60-U5S | CM60-V25S | CM60-UL25S | CM60-U25S

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

CM60-UL5R | CM60-U5R | CM60-V25R | CM60-UL25R | CM60-U25R

DATA, TELEMETRY AND SCADA MODELS

CM60-UL5D | CM60-U5D | 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 480MHz 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	28.9m m (H) x 127mm (W) x 162.8mm (D)
Weight of Chassis	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 GME 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. They are issued as a guide only and shall not form part of any contract without the express written authorisation of GME.



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PB-00001-01