



MD655/MD655G

Digital mobile radios

No matter the application, the MD655/MD655G digital mobile radios are compact and user-friendly, making them your reliable companion for in-vehicle or desktop communications.

As well as outstanding voice-quality and reliability, the MD655/MD655G excels through its simple operation via handheld microphone



Radio

MD655 MD655G

Digital mobile radios



Highlights

Intuitive operation

The MD655/MD655G is operated solely via the handheld microphone, which contains all necessary buttons, as well as an LC display. Two of the five buttons serve as function keys, available to be assigned to separate functions by the user. For different installation options, the handheld microphone is optionally available in 2.2m or 6m cable length.

Compact Design

The MD655/MD655G excels through its stylish and particularly compact design. With dimensions of just 165 x 46 x 140 mm, and a weight of just 1050g, the MD655/MD655G can be used in a multitude of ways to benefit the individual user.

Various installation options

With its operation via handheld microphone, the MD655/MD655G can be installed anywhere within a vehicle. Thanks to Hytera's wide selection of cable lengths, this mobile radio can be placed in whichever location is optimal for you.

Adaptable transmitting power

Programming the MD655/MD655G allows transmitting power to be increased from 1 W up to 25 W.

Analogue and digital mobile radio (dual mode)

With the MD655/MD655G, it's possible to configure both analogue and digital channels. This enables quick and easy movement between analogue and digital modes.

Improved utilization of the frequency spectrum

Thanks to Hytera Pseudo Trunking and the TDMA procedure, the MD655/MD655G allows the available bandwidth to be assigned to twice the number of channels. This has a clear mitigating effect on increasing spectrum scarcity.

Expansion interface

Thanks to the expansion interface, the range of functions offered by the MD655/MD655G can be increased. Accessories and applications, developed by partners, can also be connected to this interface.



Functions

- Analogue or digital operation
- Versatile voice calls:
 - Individual call, group call, broadcast call, emergency call, data call
- GPS functions (MD655G only)
 - Send GPS text messages
- Data services
 - Text messages
 - Group text messages
 - Control of the radio via API
- DMR services
 - Remote monitor
 - Radio enable
 - Radio disable
 - Call alert
- Different types of analogue signalling: HDC1200, 2-tone and 5-tone dialing
- Priority Interrupt
- Automatic cell re-selection (roaming) in IP multi site systems
- Analogue scrambling
- Secure encryption with encryption algorithm ARC4 (40 bit) in accordance with DMRA or with optional algorithms AES128 and AES256 (128 and 256 bit)
- Upgradeable software
- Roaming
- Supports Tier III Trunking (via chargeable license)



In the box

Optional accessories



Technical Data

| General data | |
|--|--|
| Frequency range | VHF: 136 - 174 MHz UHF: 400 - 470 MHz UHF2: 450 - 520 MHz |
| Supported operating modes | <ul style="list-style-type: none"> • DMR Tier II, Tier III in acc with ETSI TS 102 361-1/2/3 • Simulcast • XPT Digital Trunking • Analogue |
| Channel capacity | 1024 |
| Zone capacity | 64 (with max. 256 channels each) |
| Channel spacing | 12.5 / 20 / 25 kHz (analogue) 12.5 kHz (digital) |
| Operating voltage | 13.6 ± 15% V _{cc} |
| Max. power consumption (in stand by) | ≤ 0.6 A |
| Max. power consumption (during reception) | ≤ 2.0 A |
| Max. power consumption (during transmission) | 1 W: < 3 A 25 W: < 8 A |
| Frequency stability | ± 0.5 ppm |
| Antenna impedance | 50 Ω |
| Dimensions (W × H × L) | 165 × 46 × 140mm |
| Weight | 1050 g |

| Ambient data | |
|--------------------------------|---|
| Operating temperature range | -30°C to +60°C |
| Storage temperature range | -40°C to +85°C |
| ESD | IEC 61000-4-2 (Level 4), ± 8 kV (contact) ± 15 kV (air) |
| Dust and water protection | IP54 |
| Shock and vibration resistance | MIL-STD-810 C/D/E/F/G |
| Relative humidity | MIL-STD-810 C/D/E/F/G |

| GPS (MD655G) | |
|--|--------------|
| Time to first position recognition (TTFF) cold start | < 1 minute |
| Time to first position recognition (TTFF) warm start | < 10 seconds |
| Horizontal accuracy | < 10 meter |

Your Hytera partner:

| |
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| <p>Radiocom Systems Ltd Unit 2 & 3 The Chase Centre, 8 Chase Road, Park Royal, London NW10 6QD</p> <p>www.radiocom.co.uk sales@radiocom.co.uk T: 033 3939 0022</p> |
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| Transmitter | |
|-----------------------------------|---|
| Transmitting power | 1 - 25 W (adjustable) |
| Modulation | 11 KDF3E at 12.5 kHz 14 KDF3E at 20 kHz 16 KDF3E at 25 kHz |
| 4FSK digital modulation | 12.5 kHz (data only): 7K60FXD 12.5 kHz (data and voice): 7K60FXW |
| Interfering signals and harmonics | -36dBm (<1GHz) -30dBm (>1GHz) |
| Modulation limiting | ± 2.5 kHz at 12.5 kHz ± 4.0 kHz at 20 kHz ± 5.0 kHz at 25 kHz |
| Hum and noise | 40 dB at 12.5 kHz 43 dB at 20 kHz 45 dB at 25 kHz |
| Adjacent channel selectivity | 60 dB at 12.5 kHz 70dB at 20/25kHz |
| Audio sensitivity | + 1 to - 3dB |
| Nominal audio distortion | ≤3% |
| Digital vocoder type | AMBE+2™ |

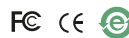
| Receiver | |
|------------------------------|--|
| Sensitivity (analogue) | 0.3 µV (12 dB SINAD) 0.22 µV (typical) (12 dB SINAD) 0.4 µV (20 dB SINAD) |
| Sensitivity (digital) | 0.3 µV/BER 5% |
| Adjacent channel selectivity | 65 dB at 12.5 kHz / 75 dB at 20 / 25 kHz 60 dB at 12.5 kHz / 70 dB at 20 / 25 kHz |
| Intermodulation | 70dB at 12.5/20/25kHz 65dB at 12.5/20/25kHz |
| Spurious response rejection | 75dB at 12.5/20/25kHz 75dB at 12.5/20/25kHz |
| Signal-to-noise ratio (S/N) | 40 dB at 12.5 kHz 43 dB at 20 kHz 45 dB at 25 kHz |
| Nominal audio power output | Internal 3W at 20Q, external 7.5W at 8Ω |
| Nominal audio distortion | ≤3% |
| Audio sensitivity | + 1 to - 3dB |
| Conducted spurious emission | -57dBm |

All technical specifications were tested according to the relevant standards.
Subject to change on the basis of continuous development.

Further information can be found at:

www.hytera.co.uk

Keep up to date with Hytera on social media.



Hytera reserves the right to modify the product design and the specifications.
In case of a printing error, Hytera does not accept any liability. All specifications are subject to change without notice.

Encryption features are optional and have to be configured separately.
They are also subject to European export regulations.

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