

MD655

DMR mobile radio

Flexible usage

No matter what it's used for, the compact dimensions of the MD655 DMR radio make it highly versatile. It excels not only with outstanding voice quality and reliability, but is easy to operate too.

Intuitive operation

The MD655 is controlled completely via the palm microphone, which contains all the required buttons and also an LCD display. On top of that, two buttons can be freely programmed to assign important functions to them.

Various installation options

With its operation via handheld microphone, the MD655 can be installed at any suitable location in the vehicle.

Compact design

The MD655 excels through its stylish and particularly compact design. With its dimensions (165 × 140 × 46 mm) and a weight of only 1050 g, the mobile radio can be used in a multitude of ways.



Technical Data MD655

General data	
Frequency range	VHF: 136 – 174 MHz UHF: 400 – 470 MHz
Supported operating modes	<ul style="list-style-type: none"> ▪ DMR Tier II (conventional DMR) ▪ Simulcast ▪ XPT Digital Trunking ▪ DMR Tier III (DMR trunked radio) (optional) ▪ Conventional analog radio ▪ MPT 1327 DMR Tier II (ETSI TS 102 361-1/2/3) DMR Tier III (ETSI TS 102 361-1/2/3/4)
Number of channels	1024
Number of zones	64 (with max. 16 channels each)
Channel spacing (analog)	12.5 / 20 / 25 kHz
Channel spacing (digital)	12.5 kHz
Operating voltage	13.6 ± 15% V _{DC}
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 (L x W x H)	165 x 46 x 140 mm
Weight	1050 g

Environmental conditions	
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)
Protection against dust and moisture	IP54
Shock and vibration resistance	MIL-STD-810 C/D/E/F/G
Relative humidity	MIL-STD-810 C/D/E/F/G

GPS (optional)	
Time to first fix (TTFF)	< 1 minute (cold start) < 10 seconds (warm start)
Horizontal accuracy	< 10 meter

Transmitter	
Transmitting power	1 – 25 W (adjustable)
Modulation	11 K0F3E at 12.5 kHz 14 K0F3E at 20 kHz 16 K0F3E at 25 kHz
4FSK digital modulation	12.5 kHz (data only): 7K60FXD 12.5 kHz (data and voice): 7K60FXW
Interfering signals and harmonics	- 36 dBm (< 1 GHz) - 30 dBm (> 1 GHz)
Modulation limiting	±2.5 kHz at 12.5 kHz ±4.0 kHz at 20 kHz ±5.0 kHz at 25 kHz
Noise cancellation	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 70 dB at 20/25 kHz
Audio sensitivity	+ 1 dB to - 3 dB
Nominal audio distortion	≤ 3 %
Digital vocoder type	AMBE +2™

Receiver	
Sensitivity (analog)	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 TIA-603	65 dB at 12.5 kHz / 75dB at 20 and 25 kHz
ETSI:	60 dB at 12.5 kHz / 70 dB at 20 and 25 kHz
Spurious response rejection TIA-603	75 dB at 12.5/20/25 kHz
ETSI	75 dB at 12.5/20/25 kHz
Signal-noise ratio (S/N)	40 dB at 12.5 kHz 43 dB at 20 kHz 45 dB at 25 kHz
Nominal audio power output	on the handheld microphone 1.5 W at 20 Ω, externally 7.5 W at 8 Ω
Nominal audio distortion	≤ 3 %
Audio sensitivity	+ 1 dB to - 3 dB
Conducted spurious emission	< - 57 dBm

All technical information was determined at the factory and in accordance with the corresponding standards. Subject to change on the basis of continuous development.



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