



Hytera DMR Systems and Solutions

Digital Mobile Radio solutions for professional users

Hytera has developed the most advanced DMR product portfolio to help professional users overcome the limitations of their analog radio systems or GSM-based communications. DMR radios and systems from Hytera are feature rich, spectrum efficient and provide clear audio while being cost effective at the same time.

Key Features and Highlights

Everything you need for professional communications

DMR stands for "Digital Mobile Radio", an open digital radio standard from the ETSI. DMR is known all over the world as a technology that combines digital voice communications and data transmission.

DMR is available in three tiers. This is a term that can be described as the "level of complexity". Tier I describes license-free DMR, Tier II is licensed conventional DMR, and Tier III means DMR trunked radio.

Thanks to the DMR standards, Hytera DMR radios and systems operate with any other DMR radio and system that is compliant with the standard.

Economic value of Hytera DMR

DMR radio systems from Hytera are aimed at users who require not only advanced voice features but also integrated data services to step up from the limitations of old analog radio systems.

Hytera's extensive portfolio of DMR products provides everything you need for a flexible, bespoke wireless solution for professional communications:

- Seamless migration from analog to digital radio
- Cost-efficient infrastructure
- Various solutions for different application scenarios
- A wide selection of DMR radios for every use case
- Many interfaces for applications and other systems in order to adapt to your business processes

Digital voice, clear audio

With the combined application of low rate vocoder and digital error-correction technologies, our DMR products ensure superior audio quality even in noisy environments or at the edge of the coverage area.

Application richness of Hytera DMR

Your communications network can be tailored for your needs with the right Hytera application, offering enhanced functionality such as GPS tracking and call recording and many more functionalities.

Spectrum efficiency of DMR

Benefiting from the TDMA technology, our DMR products allow twice the channels based on the same bandwidth. This is a big help to relieve the stress of increasing shortage in spectrum resource especially when you need more capacity as your limited legacy radio system can provide.

Hytera DMR portfolio

What sets Hytera apart is the broad range and feature set of our DMR radios and solutions. From the light and compact PD3 series - designed for ease of use in indoor environments - to the impermeable, explosion-proof PD795Ex - there's a radio for everyone. We're connecting people everywhere - improving safety and productivity along the way.

Soft migration from analog radio

Irrespective of whether you want to replace your old analog system completely with a DMR system, or initially only want to replace your old radios with digital radios: All our DMR terminals support conventional analog radio.

Hytera DMR is a safe investment at any time in your migration process. It is also important that DMR uses 12.5 kHz channels as in analog radio systems, so the spectrum compatibility between your old system and the world of DMR is already built in.



No matter which kind of business you run, Hytera has the right communications solution for you

Powerful Mobile Radio Solutions

Radio systems for every user group

Feature-rich digital communications

DMR Tier II - Conventional

DMR Tier II, also known as “conventional DMR”, includes licensed radio systems, hand-held radios and vehicle radios. The radios in a DMR Tier II system communicate through a repeater infrastructure. The repeaters within a network are connected to each other via an IP connection. Existing IP networks can be used for this without the need for a dedicated backbone network for your DMR system.

Hytera offers a broad range of DMR repeaters and radios to meet the different demands of the different industries and user groups. Depending on the model, our repeaters offer various options for installation: outdoors, in vehicles or classically in an equipment room.

Existing analog radio systems can be easily migrated. All Hytera DMR repeaters support both digital DMR and analog operation. The same applies to Hytera’s DMR radios. Thus, a suitable solution can be chosen for each migration scenario.

To cover large areas

DMR Tier II Simulcast

Hytera DS-6310 Simulcast is based on the open DMR standard and allows operation of a conventional DMR radio system (DMR Tier II) as a simulcast network. Using the proven RD985S repeater, it is possible to inexpensively realize large-area radio coverage with only one frequency pair.

Simulcast systems are used whenever it is necessary to provide frequency-efficient radio coverage of large areas and when the focus of radio communication is on the digital functionality of a DMR Tier II system. The simulcast technology means that only one frequency pair is required for such a mobile radio system, irrespective of the number of base stations in the network.

The Hytera simulcast system is ideal for utility companies, public transport organizations and municipalities who either want or need to modernize their existing simulcast or analog mobile radio system.

High density DMR network

DMR Tier III - Trunking

Hytera DMR Trunking is designed especially for sophisticated voice transmission and dispatcher communication.

Due to the flexible networking options and the high degree of scalability, small areas as well as large areas can be supplied with reliable radio communication.

Thus, Hytera DMR Trunking is especially suitable for utility companies, operation centers or industrial enterprises.

Apart from the completely IP-based system architecture and centralized networking, the trunked radio system Hytera DMR Trunking focuses on a modular design of the system components to be able to demonstrate its strong points:

- Hytera DMR Trunking combines optimum radio coverage with the benefits of digital radio engineering
- Network management software as well as the dispatcher and voice recorder systems make Hytera DMR Trunking an overall radio solution
- Reliable and fail-safe operation due to redundancy of the most important hardware components
- Cost-efficient migration from analog to digital
- With convenient user interface and its versatile functions, the Network Management System (NMS) provides centralized management of the radio system and supports remote maintenance

Trunking without control channels

Hytera XPT

Hytera XPT is a cost-efficient and easily expandable mobile radio solution from Hytera. Based on the conventional DMR mobile radio, Hytera developed XPT as a distributed trunked radio system without central system controller node for demanding users.

In contrast to the classic trunked radio, Hytera XPT does not use any control channels. All available radio channels are utilized for the communication. On top of that, all channels are managed by the mobile radio infrastructure. The benefit: A manual channel selection at the radio is no longer required. Open channels are automatically determined for call requests. This allows Hytera XPT to combine the advantages of DMR Tier II with the mobile radio properties of a powerful trunked radio system.

Hytera DMR Network Elements

DMR repeaters made to fit the needs of every user group

All the repeaters from Hytera can be connected in digital mode via IP to a comprehensive radio network. In analog mode, the repeaters can be connected together back-to-back. Both repeaters can switch independently between the digital and analog modes, depending on the type of the receiver signal. Both in conventional analog and DMR modes (DMR Tier II), the RD985 and RD985S repeaters can be used with the RD625 and RD965 repeaters in a radio system.

The super repeater - RD985S

The DMR repeater RD985S from Hytera is the heart of analog and digital radio networks and was developed in line with the open ETSI standard for DMR.

Upgradeable for greater challenges

The RD985S repeater supports not only conventional analog and digital modes, but also other modes that can be unlocked with an upgrade. It can be upgraded into a base station for DMR synchronization, DMR trunked radio or Hytera XPT radio systems.

This means that the RD985S is a secure investment for growing radio projects.

Versatile and compact - RD625

The RD625 is a DMR repeater designed specifically to provide reliable radio coverage in buildings and tunnels.

Developed in accordance with the DMR standard it can be operated with either digital or analog signals.

Easy installation

The RD625's well-engineered design makes wall mounting easy using the optionally available wall bracket. This makes it possible to install the repeater flexibly and conveniently in buildings.

Compact all-in-one design

The RD625 combines transmitter and receiver components, the power supply and the duplexer (optional) in its compact chassis.



Hytera Mobilfunk GmbH

Address: Fritz-Hahne-Straße 7, 31848 Bad Münder, Germany
Tel.: + 49 (0)5042 / 998-0 Fax: + 49 (0)5042 / 998-105
E-mail: info@hytera.de | www.hytera-mobilfunk.com

For outdoors and harsh environment - RD965

RD965 is Hytera's first digital/analog repeater for outdoor use that is compatible with the DMR standard. Thanks to its compact design, the device is very handy and can be used in a number of application scenarios, whether carried on your back, mounted on a wall or installed in an equipment rack.

Outdoor operation and IP67 degree of protection

RD965 fully complies with the standards MIL-STD-810 C/D/E/F/G and conforms to the IP67 degree of protection, ensuring exceptional performance even in harsh conditions.

Slimline and portable

With its compact design, the device measures a mere 52 mm high and weighs less than 5 kg, including the 10 Ah battery.

Flexible applications

The repeater can be mounted on tables and walls to provide mobile radio coverage within a building, installed in a mobile case or rack for emergency communication, or carried inside the optional rucksack for outdoor use. The RD965 repeater is also suitable for providing tunnels and underground facilities, e.g. underground parking lots, with radio coverage.



SGS Certificate DE11/81829313

Hytera Mobilfunk GmbH reserves the right to modify the product design and the specifications. In case of a printing error, Hytera Mobilfunk GmbH 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 German and European export regulations.

HYT Hytera are registered trademarks of Hytera Co. Ltd. ACCESSNET® and all derivatives are protected trademarks of Hytera Mobilfunk GmbH. © 2017 Hytera Mobilfunk GmbH. All rights reserved.