



# Hytera Tier III Trunking DS-6211

Hytera's digital trunked radio solution (Tier III) is designed for demanding radio users to deliver business and mission critical communications. If you require complete control and a dedicated connection, the Hytera DMR Tier III trunking system could be your solution.





A multi-level shopping mall with escalators and people walking. The mall has a modern design with curved ceilings and glass railings. People are seen walking on different levels and using the escalators. The lighting is bright and even.

## Hytera DMR Tier III Trunking DS-6211

Increasing your capacity and control with intelligent channel management and advanced functionality, Hytera DMR Tier III trunking is ideal for professional multi-user applications.

Delivering a powerful, reliable digital solution, the DMR Tier III Trunking system is compact, easy to transport and simple to install. As the leading Tier III trunking provider, Hytera systems have been deployed in all manner of commercial applications, from public safety and services, to facilities and transportation.



## Industries for DMR Tier III Trunking Application

### Transportation



Sectors: Motorways, public bus systems, taxi fleets, airports, etc.  
Characteristics: Medium network size, large amount of users, special application, information system interconnection

### Energy Resources



Sectors: Oil and Gas, Mining, Electric Power, etc.  
Characteristics: Multiple sites, large amount of users, explosion-proof, high degree of protection

### Commercial Industry



Sectors: Hotels, property management, retail, construction, etc.  
Characteristics: Single-site, medium amount of users, special application

### Public Utilities



Sectors: Education, forestry, water conservancy, etc.  
Characteristics: Multi-site, small amount of users, data transfer, telemetry.

## Key Component: RD985S



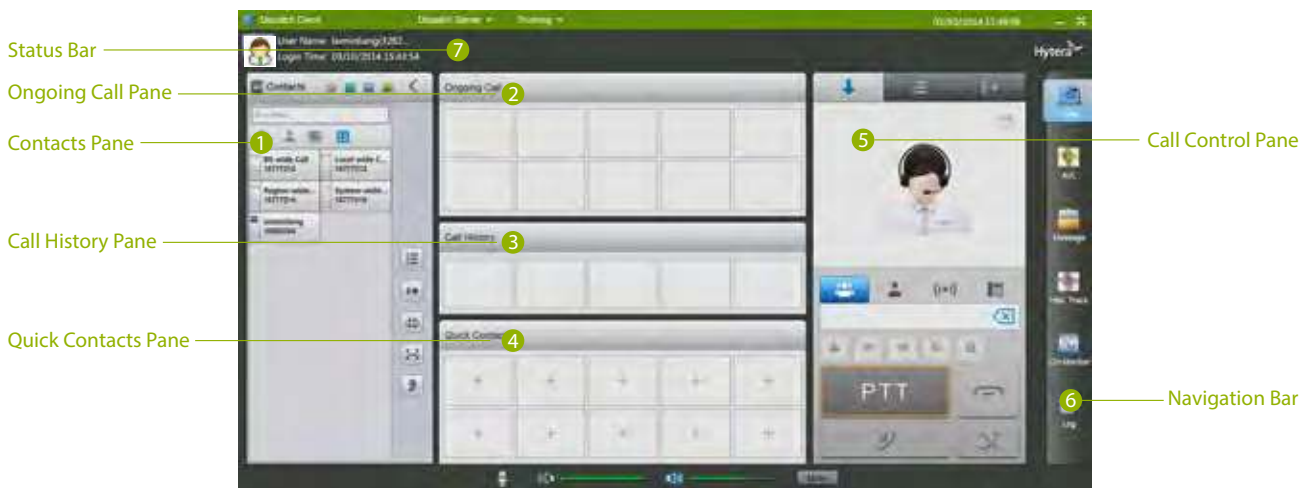
### Rack design

- Standard 19 inch rack design facilitates simple installation and maintenance.

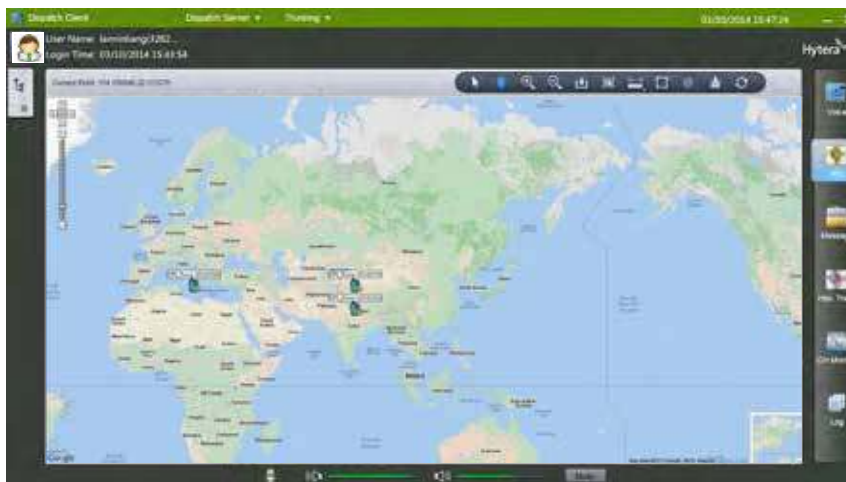
### Multi-mode operation

- The Hytera RD985S supports multi-mode operation, meaning it can work in multiple modes such as DMR conventional, MPT, DMR trunking, analogue simulcast mode and digital simulcast mode.

## Key Component: Dispatching System



- Dispatch workstation offering system communication management and includes individual call, group call, short message and enhanced functions such as emergency call, call priority, call status, voice recording & message log, which provides customers with more operation choices.



- Offering Automatic Vehicle Location (AVL), a function based in online/offline digital map tracking.
- Dispatch workstation client supporting standard/touch screen as an option.

## Key Component: Network Management System



- Provides various management capabilities such as:
  - Remote software upgrade
  - SNMP
  - Adopting C/S structure to support multi-user operation in complex and large networks
  - OTAP

## Key Component: DMR Trunking Terminals



MD785

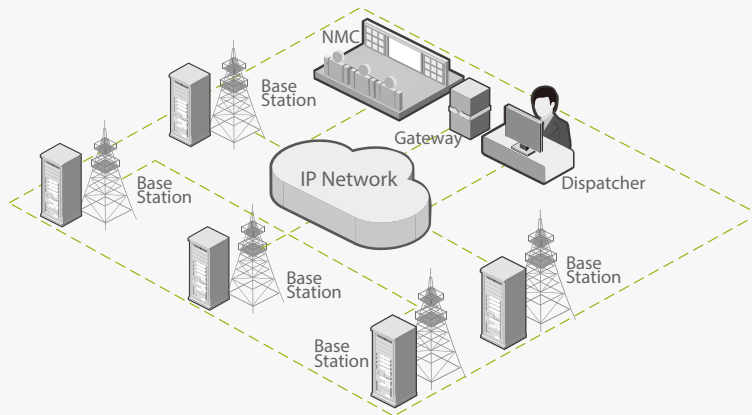


For details, please contact our regional sales representatives.

# Typical Networking

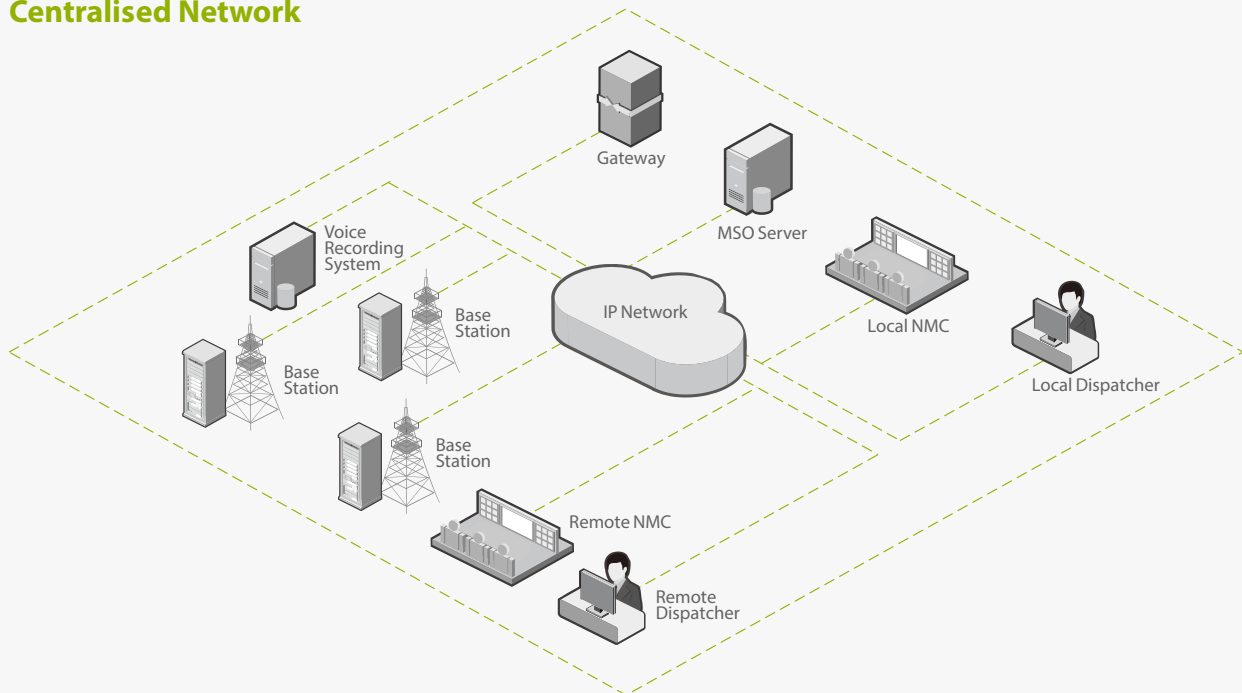
The Hytera DMR Tier III Trunking DS-6211 System supports a variety of networks, as shown below:

## Non-Centralised Network



- Non-centralised networks can operate independently in trunking mode without MSO. This structure can support 1-5 base stations, or 20 carriers. Each base station can support up to 8 carriers (15 traffic channels).
- NMC (Network Management Client) and dispatcher connect to the BS through IP backbone.

## Centralised Network



- Provides wider coverage and intercommunication.
- Multiple BS connect by E1 or IP to realise large scale coverage.
- 50 BS or 200 carriers maximum.
- Local & remote NMS and dispatcher.
- System interconnection can be realised by different gateways.

## Key Features

- **Open Standard**

The Hytera DMR Tier III Trunking DS-6211 is developed in compliance with the open DMR Tier III standard and, with the help of a dedicated control channel, the system can achieve many versatile functions.

- **Integrated RF System**

The integrated two-carrier RF system significantly saves BS space and reduces the cost of divider, combiner and duplexer.

- **IP Architecture**

All devices are based on IP architecture to ensure flexible networking and system expansion.

- **Open API**

The open API satisfies further development based on each customer's individual need, such as billing systems, email gateways, etc.

- **High System Resilience**

Hytera DMR Trunking combines optimal radio coverage with intelligent design so the availability of the overall system is ensured, even on the failure of individual components.

- **Smooth Migration**

The Hytera DMR Tier III Trunking DS-6211 transceiver supports a smooth migration from conventional to trunking. Multi-mode also provides customers with different options for continued value.

- **Versatile Services**

The Tier III Trunking DS-6211 system provides a range of services, including voice services, data services, late entry, call back, PSTN call, authentication and more.

- **Interconnection with Other Systems**

Different gateways support the interconnection between DMR trunking and other systems, such as PSTN, analogue conventional, MPT, DMR conventional, etc.

## DS-6211 Base Station Overview



400-470MHz 2 carrier BS  
600\*600\*675mm

- **Overall Delivery**

High level integrated 2-carrier 400MHz-470MHz base station supports overall delivery and promises power up to talk on site.

- **Components Delivery**

Base station components can be offered separately, and customers have alternative choices for their own cabinet and IP equipment.

- |                            |                       |
|----------------------------|-----------------------|
| ① Power Distribution Unit  | ② Transceiver         |
| ③ Transceiver Power Supply | ④ Transceiver         |
| ⑤ Switch                   | ⑥ BS PSU              |
| ⑦ Base Station Controller  | ⑧ 2-channel RF System |



# Specifications

General	
Operating Frequency	UHF: 400-470MHz, VHF: 136-174MHz
Full Load Power Consumption	2-carrier: ≤ 600W; 4-carrier: ≤ 1200W
Operating Temperature	Normal temperature: +15°C to +35°C, Extreme temperature: -30°C to +60°C
Storage Temperature	-40°C to 85°C
Dimensions (WxDxH)	2-carrier: 600X600X675mm (13U cabinet); 4-carrier: 600X600X1750mm (37U cabinet)
Humidity	Normal: 20%~75% RH; Extreme: 5%~95% RH
Weight	2 carriers: ≤ 110Kg; 4 carriers: ≤ 200Kg
Receiver	
Static Sensitivity	-118dBm @ BER≤ 5%
Maximum Input Level	-10dBm (BER≤ 0.01%)
Blocking	≥ 84dB @ ±1M/2M/5M/10MHz
Co-channel Rejection	≥ -12dB
Adjacent Channel Selectivity	≥ 60dB
Intermodulation Response Rejection	≥ 70dB
Spurious Radiation	≤ -57dBm@100KHz @ 9.00-1.00GHz; ≤ 47dBm @ 1.0MHz @ 1.00-12.75GHz
Transmitter	
TX Power	CHU: ≤ 50W; Antenna connector: ≤ 14W
Power Adjustment Range	5-50W
Occupied Bandwidth	≤ 8.5KHz @ 99% TX Power
Modulation Accuracy	≤ 5.0%
Frequency Error	±200Hz
Intermodulation Attenuation	≤ -70dB
Adjacent Channel Power Rejection	Normal condition: ≥ 60dB @ 12.5KHz; Extreme condition: ≥ 50dB @ 12.5KHz
Spurious Emission	9K-1GHz: <-36dBm @ sending; 1G-4GHz: <-30dBm @ sending
Reliability	
Mean Time Between Failures (MTBF)	100,000 hours
Mean Time to Repair (MTTR)	30 minutes

All Specifications are tested according to applicable standards, and subject to change without notice due to continuous development.

Your Hytera partner:

Radiocom Systems Ltd Unit 2, The Chase Centre,  
8 Chase Road, Park Royal,  
London  
NW10 6QD  
T: 033 3939 0022  
E: sales@radiocom.co.uk www.radiocom.co.uk

Further information can be found at:  
[www.hytera.co.uk](http://www.hytera.co.uk)

Keep up to date with Hytera on social media.



## Hytera Communications Corporation Limited

**Address:** Hytera Communications (UK) Co. Ltd.  
Hytera House, 939 Yeovil Road, Slough, Berkshire. SL1 4NH, UK.  
**Tel:** +44 (0) 1753 826 120 **Fax:** +44 (0) 1753 826 121  
**www.hytera.co.uk** **info@hyterauk.co.uk**



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.

**HYT** Hytera are registered trademarks of Hytera Communications Corp. Ltd.  
© 2017 Hytera Communication Corp., Ltd. All rights reserved.