

Digital Migration Radio PD685

DMR Standard Radio, Feature-Rich, Innovative Design,
Compact Size, Integrates with Hytera Applications



Features

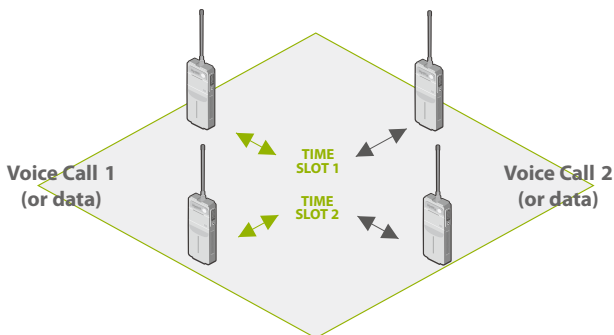
Small, Sleek, Light

The size is 122 X 54 X 27mm, PC & Metal frame, weight is 310g.



Pseudo Trunk

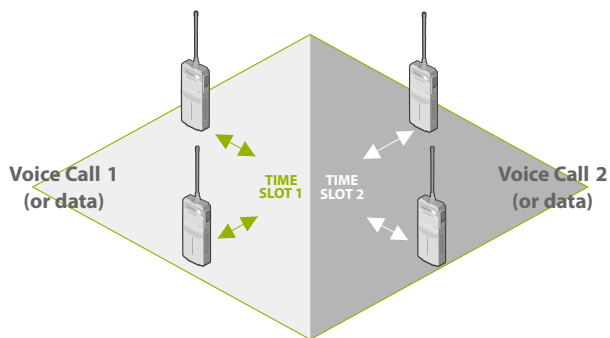
This virtual trunking feature allocates a free timeslot for urgent communications. This effectively enhances frequency efficiency and allows you to communicate in a timely manner in emergency situations.



Solt 1, Solt 2 are automatically assigned to voice call 1 or voice call 2.

DMO True 2-Slot

In DMO Hytera can provide 2-slot communication, which allows for 2 talk paths on 1 frequency.



Solt 1 used for voice call , Solt 2 used for voice call 2

Full Band

Expanded frequency range of 400-527MHz.

Dual Mode (Analog & Digital)

Dual mode (analog & digital) operation ensures a smooth analog to digital migration.

Secure Communication

Provides basic/advanced digital encryption and Scrambler feature in analog mode.

Advanced Signaling

Supports multiple advanced analog signaling modes, including HDC1200, 2-Tone and 5-Tone, providing better integration into existing analog radio fleets.

DMRA Data Service

The data protocol is fully compliant to DMRA standard.

GPS Positioning (Factory Option)

The built-in GPS module supports GIS applications.

Man Down (Factory Option)

When a user falls down, the radio can automatically alert others.

Further Development Port

The reserved side port in PD685 allows users or any third party partner to further develop other helpful applications to extend radio functionalities.

One Touch Call/Text

Supports One Touch features that comprise of Preprogrammed Text Messages, Voice Calls and Supplementary Features.

Supplementary Features

PD685 provides radio enable/disable, remoter monitor and Priority Interrupt.

Radio Priority-Based Interruption

Enable an administration or manager radio to interrupt calls for emergency or urgent communication.

IP67 Compliance

IP67 rated withstanding up to 1m submersion for 30 minutes or more.

Rugged & Reliable

Compliant with MIL-STD-810 C/D/E/F/G standards.

Small, Sleek, Light

The size is 122 X 54 X 27mm,
weight is 310g.

Metal Frame

Metal frame design,
smooth texture,
comfortable to hold and use.



Target Markets



Construction

At the noisy construction site a good voice quality radio can make all the difference.



Forestry

Safety functions (man down, lone worker, emergency alarm) give you peace of mind when working alone or on remote locations.



Bank

Complete dispatch system can provide security recording and monitoring.



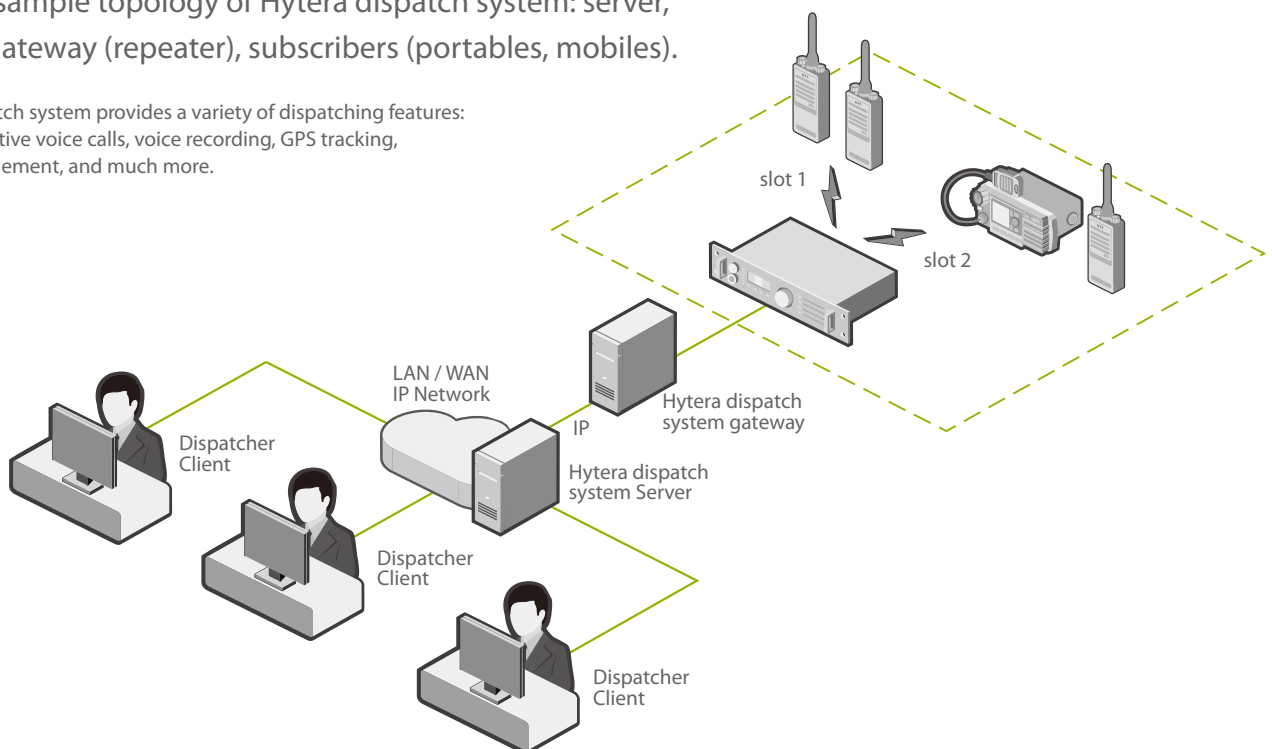
Factory

Highest dust and water rating (IP67) to withstand dust and liquid impact on the factory floor.

Applications

This is a sample topology of Hytera dispatch system: server, clients, gateway (repeater), subscribers (portables, mobiles).

Hytera dispatch system provides a variety of dispatching features: such as selective voice calls, voice recording, GPS tracking, alarm management, and much more.



Accessories



Pictures above are for reference only and may vary from actual products.

BL1502	Li-ion Battery (1500mAh)	EHN21	Remote C-Earset
BL2010	Li-ion Battery (2000mAh)	ESN14	Remote Earbud
RO03	Strap	EHN20	Remote Swivel Earset
MCA08	MCU Multi-Unit Charger (for Thick Battery)	EAN22	Detachable Earpiece with Transparent Acoustic Tube
MCA05	Battery Optimizing System	PC45	Programming Cable (USB Port)
BC19	Belt Clip	NCN011	Nylon Carrying Case (half-folded, non-swivel, black)
ESW01-N2	Wireless Earset Kit	CH10A07	General MCU Rapid-rate Charger (for Li-Ion/Ni-MH Batteries)
Antenna		Adapter	

High-Capacity Battery & Battery Charger:

BL1502 Li-ion Battery 1500mAh; BL2010 Li-ion Battery 2000mAh, MCA05 Battery Optimizing System & MCA08 MCU Multi-Unit Charger (for Thick Battery). For users requiring long-time operation, a high-capacity battery with battery optimizing system is undoubtedly the best match. The 2000mAh Li-ion battery for PD685 ensures up to 16 hours of work.

Audio Accessories:

EHN21 Remote C-Earset, ESN14 Remote Earbud, EHN20 2-wire Surveillance Earpiece with Transparent Acoustic Tube (Black), EAN22 Detachable Earpiece with Transparent Acoustic Tube. PD685 has a variety of audio accessories for flexible use in different environments.

Specifications

General	
Frequency Range	VHF: 136-174MHz UHF1: 400-527MHz
Channel Capacity	1024
Zone Capacity	64
Channel Spacing	25/20/12.5KHz
Operating Voltage	7.4V
Battery(Li-Ion)	1500mAh/2000mAh
Battery Life (5/5/90)	Analog: about 11 Hours Digital: about 16 Hours
Weight	310g
Dimensions	122 X 54 X 27mm
Frequency Stability	±0.5 ppm
Antenna Impedance	50Ω
Receiver	
Sensitivity (Analog)	0.22μV (12dB SIN AD) 0.22μV (Typical) (12dB SIN AD) 0.4μV (20dB SIN AD)
Sensitivity (Digital)	0.22μV/BER 5%
Adjacent Selectivity	TIA-603 60dB @ 12.5KHz/70dB @ 20 & 25KHz
	ETSI 60dB @ 12.5KHz/70dB @ 20 & 25KHz
Spurious Response Rejection	TIA-603 70dB @ 12.5/20/25KHz
	ETSI 70dB @ 12.5/20/25KHz
Inter-Modulation	TIA-603 70dB @ 12.5/20/25KHz
	ETSI 65dB @ 12.5/20/25KHz
Hum & Noise	40dB @ 12.5KHz 43dB @ 20KHz 45dB @ 25KHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	≤3%
Audio Response	+1 ~ -3dB
Conducted Spurious Emission	<-57dBm
GPS	
TTFF (Time To First Fix) Cold Start	<1 minute
TTFF (Time To First Fix) Hot Start	<10 seconds
Horizontal Accuracy	<10 meters

Transmitter	
RF Power Output	VHF High power 5W VHF Low power 1W UHF High power 4W UHF Low power 1W
FM Modulation	11K0F3E @ 12.5KHz 14K0F3E @ 20KHz 16K0F3E @ 25KHz
4FSK Digital Modulation	12.5KHz Data Only: 7K60FXD 12.5KHz Data & Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm <1GHz -30dBm >1GHz
Modulation Limiting	±2.5KHz @ 12.5KHz ±4.0KHz @ 20KHz ±5.0KHz @ 25KHz
FM Hum & Noise	40dB @ 12.5KHz 43dB @ 20KHz 45dB @ 25KHz
Adjacent Channel Power	60dB @ 12.5KHz 70dB @ 20/25KHz
Audio Response	+1 ~ -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE++ or SELP
Digital Protocol	ETSI-TS102 361-1,-2,-3
Environmental	
Operating Temperature	-30°C ~ +60°C
Storage Temperature	-40°C ~ +85°C
ESD	IEC 61000-4-2 (Level 4) ±8kV (Contact) ±15kV (Air)
American Military Standard	MIL-STD-810 C/D/E/F/G
Dustproof & Waterproof	IP67 Standard
Humidity	Per MIL-STD-810 C/D/E/F/G Standard
Shock & Vibration	Per MIL-STD-810 C/D/E/F/G Standard

All specifications are subject to change without notice due to continuous development.



Hytera Communications Corporation Limited

Address: Hytera Tower, Hi-Tech Industrial Park North, Beihuan Rd.,
Nanshan District, Shenzhen, China

Tel: +86-755-2697 2999 **Fax:** +86-755-8613 7139 **Post:** 518057

Http: //www.hytera.com **Stock Code:** 002583.SZ



Hytera retains right to change the product design and specification. Should any printing mistake occur, Hytera doesn't bear relevant responsibility. Little difference between real product and product indicated by printing materials will occur by printing reason.

HYT, Hytera are registered trademarks of Hytera Communications Co., Ltd.

© 2014 Hytera Communications Co., Ltd. All Rights Reserved.