

## RD985S SERIES ACCESSORIES

STANDARD ACCESSORIES				
OPTIONAL ACCESSORIES				
				
				
	Back to Back Data Cable	Duplexer	Power supply for RD985S 100W PS21001	Power supply for RD985S (50W) PS22002 (L)

## APPLICATIONS



## SPECIFICATIONS

General	Frequency Range	RD985S: UHF1: 400-470MHz; UHF2: 450-520MHz; UHF3: 350-400MHz; VHF: 136-174MHz RD985S 100W: UHF1: 400-470MHz	
	Channel Capacity	16	
	Channel Spacing	12.5kHz/20kHz/25kHz	
	Operating Voltage	RD985S: 13.6V±15% RD985S 100W: 28V DC	
	Current Drain	Standby	RD985S: <1.0A RD985S 100W: ≤0.5A
		Transmit	RD985S: <11A RD985S 100W: ≤12.5A
	Frequency Stability	±0.5ppm	
	Antenna Stability	50Ω	
	Duty Cycle	100%	
	Dimensions (HxWxD)	88 x 483 x 366 mm	
	Weight	8.5kg	
	LCD Display	220 x 176 pixels 262000 Colours, 2.0 inch, 4 rows	

Receiver	Sensitivity	Analogue	0.28µV (12dB SINAD); 0.22µV (Typical)(12dB SINAD); 0.4µV (20dB SINAD)
		Digital	0.3µV/BER5%
	Adjacent Channel Selectivity	TIA-603	65dB @ 12.5kHz; 70dB @ 20/25kHz
		ETSI	65dB @ 12.5kHz; 70dB @ 20/25kHz
	Intermodulation	TIA-603	75dB @ 12.5/20/25kHz
		ETSI	70dB @ 12.5/20/25kHz
	Spurious Response Rejection	TIA-603	80dB @ 12.5/20/25kHz
		ETSI	80dB @ 12.5/20/25kHz
	Hum and 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	

Transmitter	RF Power Output	RD985S: 5-50W (adjustable) RD985S 100W: 5-50W (adjustable)
	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 Hurn & Noise	40dB @ 12.5kHz; 43 dB @ 20kHz; 45dB @ 25kHz
	Adjacent Channel Power	60dB @ 12.5kHz; 70dB @ 20/25kHz
	Audio Response	+ 1 ~ -3dB
	Audio Distortion	≤ 3%
	Digital Protocol	ETSI-TS102 361-1,-2,-3

Environmental Specifications	
Operating Temperature	-30°C~+60°C
Storage Temperature	-40°C~+85°C



## RD985S SERIES Intelligent Super Repeater

- Reliable Communication Coverage
- High-Powered Performance
- Digital-Analogue Auto Switch
- Smooth Migration & Upgrading
- Addable Applications



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

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

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## RD985S 100W HIGH POWER REPEATER

Today, more than ever, we are facing a multitude of challenges as well as opportunities. These can cover public safety, public utilities or commercial industry. To help your organisation to stand above the competition, instant communications that improves working efficiency is the key. Apart Hyteras versatile two-way radios we provide the RD985S series repeaters to suit your need for communication coverage, delivering reliable and high performance services.



## HIGHLIGHTS



### Flexible Hardware Options

RD985S series includes two hardware options which will support your various coverage requirements. These are the RD985S 50W and 100W (high power amplifier). Both provide reliable and outstanding performance.



### Analogue/Digital Auto Switch

RD985S series repeaters can support mixed channel mode to detect receiving signal, then automatically switch between analogue mode and digital mode. Offers an easy way to migrate to digital from analog.



### IP Multi-site Connection

An IP network easily connects multiple RD985S repeaters in analogue and digital modes. This enables a cost effective, large coverage communications network to be deployed across multiple locations.



### Additional Applications

Hytera offers various applications enriching the functionality of the RD985S series repeaters. For dispatching there is SmartDispatch or SmartOne and remote programming there is OTAP. Open API can be provided for third party development.



### Smart Network Management

Hytera delivers XNMS as the professional network management platform for RD985S series repeaters. The XNMS can remotely monitor services, configure parameters, and export statistics report for network diagnosis.



### SIP Phone Interconnection

Based on the SIP protocol standard, the RD985S series repeaters can be connected with IPPBX enabling real-time communications between two-way radio's and telephones, such as PSTN, VoIP and mobile phones.

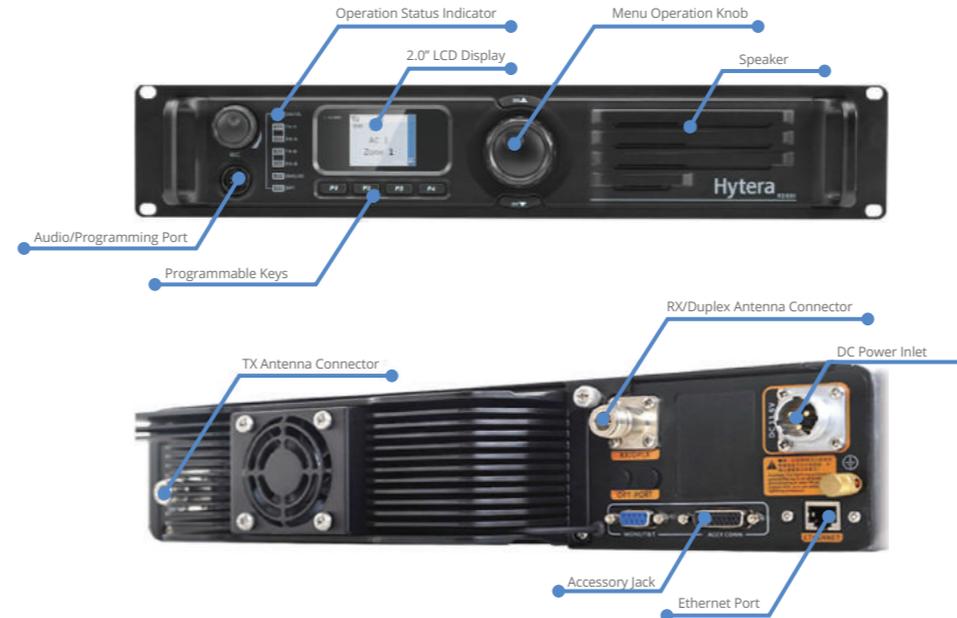


### Back To Back Solution

RD985S series repeaters can detect cross-band and cross-system communications in DMR Tier II through Hytera's Back-to-Back solution. The RD985S series repeaters, when connected to a Hytera mobile radio, enables a wireless connection between two systems when no IP link is available.

## RD985S 100W HIGH POWER REPEATER

The RD985S 100W repeater is designed to maximise your coverage. Workplaces can be in crowded city spaces or outside in the wild, a single building or multiple places across regions. The powerful RD985S 100W eliminates signal blind spots and increases communication range. This will provide continuous and reliable voice and data communication coverage. The compact structural design offers easy installation.



## RD985S 100W HIGHLIGHTS



### Wide Coverage

The RD985S\_100W transmission power dramatically broadens the networks communications coverage over large areas, thus reducing network investment. With the RD985Ss Ethernet port enabling IP network access, this gives communications to everyone anywhere.



### User Friendly

The RD985S repeaters high-resolution display, programmable buttons and clear LED indicators makes it easy-to-use either during ongoing operations or for maintenance tasks.



### Compact Design

The RD985S\_100W high power amplifier still lends itself to a compact 2U structural design. Its flexibility and easy installation into various areas negates installation concerns.



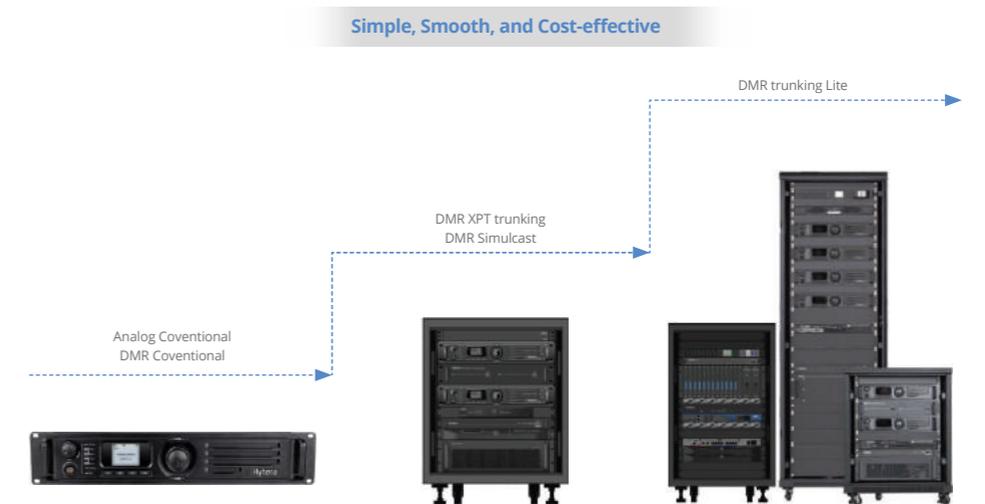
### High Cooling Capacity

The RD985S\_100W amplifier is highly efficient in its dissipation of the heat generated during operation. With the addition of an integrated fan system ensuring stable and powerful operation.

## SMOOTH MIGRATION WITH YOUR BUSINESS GROWING

As an organisation expands its requirement for increased capacity and deployment to more sites necessitates a new and efficient communications system.

The RD985S series repeaters are compatible with Hyteras systems: Analogue Conventional Mode (Single and IP Multi-site Connection), DMR Conventional Mode, Hytera Extended Pseudo Trunking, DMR Simulcast System, DMR Trunking Lite. If you are looking to migrate from analogue to digital or switch to a large capacity trunking system, this simple and cost-effective repeater can be unlocked with a chargeable license.



### Hytera XPT System

#### Simple, Cost-effective and Scalable

The XPT application is a hugely cost-efficient, and easily expandable mobile radio solution from Hytera. It's based on proven repeater technology. XPT can be developed as a distributed trunked radio system with increased capacity, and without controller node and dedicated control channel for demanding users.



### Hytera Simulcast System

#### Wide Area Communications

Hyteras DS-6310 Simulcast system is based on the open DMR Tier II standard. It broadcasts simultaneously the same signal across multiple overlapping sites on the same frequency making it possible to inexpensively expand large-area radio coverage with just one frequency pair.



### DMR Trunking Lite

#### Sophisticated Communication Management

Based on the OMR Tier III standard, Hyteras Trunking Lite(DS-6211) system tackles high radio traffic, maximising available capacity across dynamic user groups and challenging single or multi-site geographies. It delivers an expansive feature set to ensure your current and future communications requirements are met.