# **Specifications**

F	Frequences		UHF1: 400-470 MHz; UHF2: 450-520 MHz UHF3: 350-400 MHz; VHF: 136-174 MHz
	Channel Capacity		16
	Channel Spacing		12.5kHz/20kHz/25kHz
	Operating Voltage		13.6V ± 15%
	Channel	Standby	<0.8A
	Capacity	Transmit	<11A
F	Frequency Stability		± 0.5ppm
1	Antenna Impedance		50 Ω
	Duty Cycle		100%
	Dimensions (H × W × D)		88 X 483 X 366 mm(3.4 X 19.0 X 14.4 inch)
٧	Weight		8.5 kg(18.7 lbs)
L	LCD Display		220*176 pixels, 262000 colors; 2.0 inch, 4 rows
Se	Sensitivity	Analog	0.3 μ V (12dB SINAD);0.22 μ V (Typical) (12dB SINAD);0.4 μ V (20dB SINAD)
		Digital	0.3uV/BER5%
TI.	Adjacent Channel Selectivity TIA-603 ETSI		65dB @ 12.5 kHz; 75dB @ 20/25 kHz 65dB @ 12.5 kHz; 75dB @ 20/25 kHz
TI.	Intermodulation TIA-603 ETSI		75dB @ 12.5/20/25 kHz 70dB @ 12.5/20/25 kHz
Ti.	Spurious Response Rejection TIA-603 ETSI		80dB @ 12.5/20/25 kHz 80dB @ 12.5/20/25 kHz
TI.	Blocking TIA-603 ETSI		90dB 90dB
н	Hum and Noise		-40dB@12.5kHz -43dB@20kHz -45dB@25kHz
Ra	Rated Audio Power Output		0.5W
Ra	Rated Audio Distortion		≤3%
	Audio Response		+1 ~ -3dB
AL			

Transmitter	RF Power Output	5-50W
	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	± 2.5 kHz@ 12.5 kHz; ± 4.0 kHz@ 20 kHz; ± 5.0 kHz@ 25 kHz
	FM Hum & Noise	-40dB @ 12.5 kHz;-43dB @ 20 kHz;-45dB @ 25 kHz
	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 Specifications
Operating Temperature	-30℃ ~ +60℃
Storage Temperature	-40°C ~ +85°C

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

# Standard Accessories

Power Cord

# **Optional Accessories**











(for DT11 and DT14 only) (300W, backup power









Bracket (2U)(grey)

BRK14



(10A 12AWG)







DB26 data cable (USB)



Antenna









applicable) PS22002

Duplexer (Frequency: 380-470MHz; RX-TX spacing: 5~13MHz) DT11 Ouplexer (Frequency: 160-174MHz; RX-TX spacing:5MHz) DT12 xer (Frequency: 148-160MHz; RX-TX spacing:5MHz) DT13 Suplexer (Frequency: 336-370MHz: RX-TX spacing: 8-13MHz) DT14 Duplexer (Frequency: 136-148MHz; RX-TX spacing: 5 H3Hz) DT15 Duplexer (Frequency: 440-480MHz; RX-TX spacing:5MHz) DT16 Duplexer (Frequency: 480-512MHz; RX-TX spacing:5MHz) DT17

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

## **SURYA TELECOM PVT. LTD.**

An ISO 9001:2008 Certified Company Corporate Office

SCO 36, Sector 3, Panchkula-134 112, Haryana (INDIA) Tel: +91-172-2565228, 2565229, Fax: +91 172 2574636

Email: sales@suryatel.com, Website: www.suryatel.com

Delhi Office: SF-202, 5A, Pusa Road, Karol Bagh

New Delhi 110 005, INDIA

Works: Plot No. 20A, Industrial Area, Sector-2

Parwanoo: 173 220, Distt. Solan,

Himachal Pradesh, India





# **RD988**

Powerful Digital Repeater

- Smart Digital-Analog Switch
- Outstanding Heat Dissipation







## **RD988**

Higher Efficiency, Richer Experience As a professional repeater built to the DMR standard, RD988 integrates user concerns and actual requirements. Powerful digital feature, remarkable service quality and considerate ergonomic design - It will refresh your communication experience!

# **Applications**

Public Safety Energy and Forestry Utility Business Transportation Sports



### **Product Features**

#### Smart Digital-Analog Switch

This repeater supports digital and analog modes. It can smartly select the right one based on the type of received signal, allowing you to enjoy digital delights with ease.

#### Advanced TDMA Technology

The application of Time Division Multiple Access (TDMA) technology greatly enhances spectrum efficiency, which allows twice the user compared with that of traditional FDMA. Obviously, this can not only save your cost in base station and frequency license, but also relieve the pressure of increasing shortage in spectrum resources.

#### Outstanding Heat Dissipation

The unique cooling design combining a built-in heat pipe and a temperaturecontrolled fan ensures quick heat dissipation, enabling the repeater to work normally even with full power.

#### Handy Management Service

With the management software, you can remotely monitor and diagnose a repeater. In addition, you can either record or play back the audio freely in digital mode.

#### Innovative LED Design

The innovative LED and the 2.0 " HD color display would deliver you the repeater status clearly, as well as a pleasing visual experience.

#### Accessory Expansion

RD988 supports third party to develop accessories expansion via front and rear port of the Repeater. This is achieved via the signal streaming and pin control through the repeater ports.

# Main Functions

#### Repeater Diagnostic And Control (RDAC)

RD988 supports Remote (via IP port to connect to internet) and Local diagnostic (via USB) PC applications to monitor, diagnose and control the repeater status, thus increasing the maintenance efficiency. "Hytera" s developed RDAC is able to support multiple master network connection to allow radio administrator to monitor multiple radio network upcoming!

#### Dual Slot Digital Audio Streaming

RD988 supports streaming of both the voice slots via the rear port accessory pins, allowing third party for capability expansion.

#### Analog Digital Autoswitch

RD988 supports Analog and Digital channel auto switching, allowing efficient frequency sharing between Analog and Digital users during the digital migration.

#### IP Multi-site Connect

RD988 supports network interconnect via the IP port of repeater to form a private radio network, allowing wide area coverage to meet dispersed locations data and voice communications.

#### 50W High Power

RD988 supports maximum repeating power of 50W, and thus increasing the system coverage with lesser setup equipments.

#### 16 Channels

RD988 supports maximum of 16 channels, allowing efficient radio network control at different scenarios. The channel change can be performed either via RDAC PC tools, via the repeater's front panels channel knob and via the channel steering from the repeater's rear port.

#### Analog/Digital Operating Mode

RD988 supports operating mode of Analog and Digital.

#### Analog/Digital Back-to-Back Interconnect

RD988 supports different operating mode of Analog and Digital to interconnect for voice cross patch, allowing Analog users to communicate to the Digital users and vice versa. This has allowed the smooth migration for Analog users to the digital world!

#### Analog Repeater Knockdown

RD988 supports repeater knockdown, that when activated via the repeater's rear accessory pin, will disabled the transmit path of the repeater.

#### Multi CTCSS/CDCSS Decode

RD988 supports decoding up to maximum of 16 CDCSS/CTCSS in Analog channels, allowing repeating of different Analog voice users from various groups.

#### Analog Scan

RD988 supports Analog voice and signaling scan, allowing repeating of different Analog voice users from various groups.

#### Repeater Access Management

RD988 supports radio users access control to the repeater, allows better security to prevent un-authorized users from accessing the radio network.

#### Analog/Digital Telephone Interconnect (via DTMF signaling)

RD988G supports simplex voice communications between radio and telephone users. It allows a radio user to make a telephone call; or a telephone user to make either a Group or Private call to radio users. This feature utilizes the Commercial Off The Shelf (COTS) Analog Phone Patch boxes and a Plain Old Telephone Service (POTS) line to connect the Repeater to the Corporate Office Phone System (PBX) or Public Switched Telephone Network (PSTN).

#### Continuous Wave Identification (CWID)

RD988 supports Analog transmission of the repeater identification in Morse code format

\* indicates functions available in later version.