



**HUAWEI GSM-R OPH R952  
V100R001C00  
Product Description**

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## About This Document

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### Brief Introduction

This document describes the features, specifications, and functions of the HUAWEI R952 GSM-R OPH handset (R952 for short).

### Change History

Issue	Details	Date	Author	Approved By
01				
02				
03				

# Content

**About This Document..... 3**

**1 Overview.....5**

    1.1 Introduction ..... 5

    1.2 Appearance ..... **Error! Bookmark not defined.**

**2 Product Specifications..... 6**

    2.1 Physical Specifications..... 6

    2.2 Main Features ..... 7

    2.3 Environmental Specifications..... 9

    2.4 Performance Specifications ..... 9

    2.5 Product Certifications..... 9

    2.6 Accessories ..... 10

**A Acronyms and Abbreviations.....11**

# 1 Overview

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## 1.1 Introduction

The R952 is a GSM-R OPH handset with the following features:

- Mature platform, stable performance and quality, and low hardware cost

In addition to incorporating the advantages of mature products using the same hardware as the R952, the R952 software and hardware have been developed to comply with the GSM-R protocol stack and GSM-R communication service. By building on previous product development, the R952 has established itself as a mature product yet available to consumers at relatively low cost.

- A wide range of GSM-R functions

The R952 provides voice group call service (VGCS), voice broadcast service (VBS), late entry, emergency calls, enhanced Multi-Level Precedence and Preemption (eMLPP), and functional number services.

- PTT and emergency call keys

Dedicated PTT and emergency call keys facilitate rapid communications with individuals or groups.

# 2 Product Specifications

## 2.1 Physical Specifications

Table 2-1 lists the physical specifications of the R952.

**Table 2-1** Physical specifications of the R952

Item		Specifications
Form factor		Bar type(直板), 141.4*62.8*25.9mm
Platform		HUAWEI kirin 620
SIM		Single SIM
Antenna		Built-in & reversed port to connect an external antenna
Battery	3000 mAh Lithium-polymer battery	Standby time: more than 600 hours (network dependent) Talk time: more than 15 hours (network dependent)
Display	Resolution	240 x 320 pixels
	LCD size	2.4 inches
Port	Charger port	Micro-USB port
	USB port	Micro-USB port
	SD port	Micro SD port, can expand to max 32GB
	Headset jack	Standard 3.5mm jack
The side keys		PTT button, emergency button, volum (+/-) button, Reserved button
GPS		Support
Bluetooth		Bluetooth 4.0
Sensor		G-sensor
Camera		CMOS

Item	Specifications
IP class	IP65

## 2.2 Main Features

Table 2-2 Main features

Feature	Description
Working bands	Supports GSM900 and DCS1800 bands.
Trunking service	<ul style="list-style-type: none"><li>• Supports VGCS and editing of group names.</li><li>• Supports VBS and editing of group names.</li><li>• Supports joining an ongoing group call (late entry).</li><li>• Supports eMLPP.</li><li>• Supports emergency calls.</li><li>• Supports emergency call acknowledgment.</li><li>• Supports PTT settings, including: PTT mode, group call status, broadcast status, and automatic answer</li><li>• Supports setting functional numbers.</li><li>• Supports calling number identification (CNID).</li><li>• Supports dialed number identification service (DNIS).</li><li>• Supports hands-free calling.</li><li>• Supports group call record management.</li></ul>
Functional numbers	<ul style="list-style-type: none"><li>• Supports functional number registration, deregistration, and querying.</li><li>• Supports changing the current functional number used for call forwarding.</li><li>• Supports forced deregistration of functional numbers.</li><li>• Supports deregistration of functional numbers upon power-off.</li><li>• Supports the China Region numbering plan.</li></ul>
Camera	<ul style="list-style-type: none"><li>• Supports night mode.</li><li>• Offers three image qualities: high, middle, and low.</li></ul>
BT	<ul style="list-style-type: none"><li>• Support transferring files by BT and video by BT.</li></ul>
Folders	<ul style="list-style-type: none"><li>• Image folder: Stores downloaded images.</li><li>• Ringtone folder: Stores downloaded ringtone.</li><li>• Music folder: Stores downloaded music.</li><li>• Video folder: Stores downloaded video.</li></ul>

Feature	Description
	<ul style="list-style-type: none"> <li>Others: Store other files.</li> </ul>
Shortcut keys	<ul style="list-style-type: none"> <li>Provides four customizable navigation keys as shortcut keys for different functions.</li> <li>Supports an emergency number shortcut key.</li> <li>Supports a PTT call shortcut key.</li> </ul>
SMS	<ul style="list-style-type: none"> <li>Supports text message sending and receiving and message template editing.</li> <li>Supports up to 1000 text messages in onboard phone storage including inbox, outbox, and draft messages.</li> <li>Supports setting a signature to append to text messages.</li> <li>Supports voice mail.</li> <li>Supports cell broadcast and configuration.</li> </ul>
Contacts	<ul style="list-style-type: none"> <li>Supports up to 1000 contacts in onboard phone storage.</li> <li>Supports copying contacts between onboard phone storage and the SIM card.</li> <li>Supports speed dialing.</li> </ul>
Profiles	Supports general, silent, meeting, outdoor, and headset modes
Applications	Provides multiple applications, such as alarm, calendar, and calculator.
Supplementary services	Supports other services, such as call prioritization, call blocking, call waiting, and call forwarding.
SIM	Supports SIM application toolkit.
Language	Support English
Call display	Display the information of the call, including function entity, the contract information of remote.
Status Display	One status bar on top of the phone to show the capacity of battery, network status and earphone mode, and so on.
Status Tones	Play beep tones when release the group calls, or fail in occupying the uplink.
Burn-in function	Support
Network monitor	Display cell data and the properties of the GSM/GSM-R connection for its and neighbouring cell



## 2.3 Environmental Specifications

Table 2-3 lists the environmental specifications of the R952.

**Table 2-3** Environmental specifications of the R952

Item	Specifications
Operating temperature	–20°C to +55°C
Storage temperature	–40°C to +70°C
Transportation temperature	–40°C to +70°C
Humidity	0%–95% RH

## 2.4 Performance Specifications

Table 2-4 lists the performance specifications of the R952.

**Table 2-4** Performance specifications of the R952

Item	Specifications
Frequency bands	<ul style="list-style-type: none"><li>• GSM900: Uplink: 876–915 MHz Downlink: 921–960 MHz</li><li>• GSM1800: Uplink: 1710-1785MHz Downlink: 1805-1880MHz</li><li>• DATA: GPRS/EDGE CLASS 12</li></ul>

## 2.5 Product Certifications

The R952 is certified by:

- China Compulsory Certification (CCC)
- Radio Type Approval Certification (China)
- China Railways Production Certification (CRCC)

- Restriction of Hazardous Substances (RoHS)
- Conformité Européenne (CE)

## 2.6 Accessories

Table 2-5 lists the standard accessories of the R952.

**Table 2-5** R952 accessories

No.	Item	Quantity
1	Travel charger	1
2	Battery	1
3	User Guide	1
4	Headset	1
5	USB cable	1

Table 2-6 lists the optional accessories of the R952.

**Table 2-6** Optional accessories of the R952

No.	Item	Quantity
1	Backup battery	1
2	desktop charger for parallel charging of multiple batteries and devices	1
3	belt pouch	1
4	remote speaker microphone	1

# A Acronyms and Abbreviations

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<b>CMOS</b>	complementary metal-oxide semiconductor
<b>CNID</b>	Calling Number Identification
<b>DCS</b>	distributed control system
<b>DNIS</b>	Dialed Number Identification Service
<b>GSM</b>	Global System for Mobile Communications
<b>LCD</b>	liquid crystal display
<b>PTT</b>	push-to-talk
<b>QVGA</b>	Quarter VGA
<b>SIM</b>	Subscriber Identity Module
<b>VBS</b>	Voice Broadcast Service
<b>VGA</b>	Video Graphics Array
<b>VGCS</b>	Voice Group Call Service