

HUAWEI C2281 CDMA 1X Mobile Phone Product Description





HUAWEI C2281 CDMA 1X Mobile Phone Product Description

Manual Version: 02 (2006-09-11)

Product Version: V100R001

Huawei Technologies Co., Ltd. provides customers with comprehensive technical support and service. Please feel free to contact our local office or company headquarters.

Huawei Technologies Co., Ltd.

Address: Administration Building, Huawei Technologies Co., Ltd.,
Bantian, Longgang District, Shenzhen, P. R. China

Postal Code: 518129

Website: <http://www.huawei.com>



Copyright © 2006 Huawei Technologies Co., Ltd. All Rights Reserved.

No part of this manual may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Technologies Co., Ltd.

Trademarks



and other trademarks are the property of Huawei Technologies Co., Ltd.

All other trademarks and trade names mentioned in this manual are the property of their respective holders.

Notice

The information in this manual is subject to change without notice. Every effort has been made in the preparation of this manual to ensure accuracy of the contents, but all statements, information, and recommendations in this manual do not constitute the warranty of any kind, express or implied.

Table of Contents

Chapter 1 Product Overview	1
1.1 Introduction	1
1.2 Appearance.....	1
1.3 Features.....	2
1.3.1 Main Features	2
1.3.2 Other Features	2
Chapter 2 Specifications	3
2.1 Physical Specifications	3
2.2 Working Environment	4
2.3 Performance Specifications	4
2.4 Certifications	5
2.5 RF Specifications	5
2.5.1 RF Transmission Specifications.....	5
2.5.2 RF Reception Specifications	5
2.6 Packing List.....	6
Chapter 3 Main Functions	7
3.1 SMS	7
3.2 Phonebook.....	7
3.3 Shortcut Keys.....	7
3.4 Polyphonic Ringtones	7
3.5 Applications.....	8
3.6 OTASP	8
3.7 OTAPA.....	8
3.8 Supplementary Services.....	8
3.9 BREW	8
Chapter 4 Function List	9
Chapter 5 Acronyms and Abbreviations.....	13

Chapter 1 Product Overview

1.1 Introduction

HUAWEI C2281 (hereinafter referred to as the C2281) is a Code Division Multiple Access (CDMA) mobile phone working on the band of 800 MHz. It is a bar-type and low-end mobile phone with an exquisite appearance. It provides the basic voice service and short message service (SMS). Contact entries and short messages can be saved in both the mobile phone and the user identity module (UIM) card. The mobile phone can work in either of the following two modes: Read Only Memory-User Identity Module (ROM-UIM) and Removable User Identity Module (R-UIM). It is an ideal choice for business people.

1.2 Appearance

Figure 1-1 shows the appearance of C2281.



Figure 1-1 C2281 appearance



1.3 Features

1.3.1 Main Features

- Fashionable streamline design
- 65536 color display
- 12-chord polyphonic ring tones
- Large-capacity SMS storage

1.3.2 Other Features

- Type-ahead for words and phrases
- Contact groups
- Shortcut keys
- Alarm clock and calendar
- Calculator and stopwatch
- Games

Chapter 2 Specifications

2.1 Physical Specifications

Table 2-1 lists the physical specifications of the C2281.

Table 2-1 Physical specifications

Item		Specification
Dimensions (L × W × T)		102mm x 42mm x 17.6mm
Weight		About 80 g (including the battery)
Form		Bar-type
Antenna		Internal
UIM		Can work in either the R-UIM mode or the ROM-UIM mode
Charger		<ul style="list-style-type: none"> CE (switch charger): 5.3 V/650 mA
Battery	850 mAh Li-ion	<ul style="list-style-type: none"> Standby time: 120h-150h (depending on the network) Talk time: 150min-180min (depending on the network)
Display	Pixel	128 × 128
	Liquid crystal display (LCD) type	Color super twist nematic (CSTN)
	Color	65000 CSTN
	LCD size	1.5 inch
Connector	Charger connector	24-PIN
	Data cable connector	24-PIN
	Headset connector	Hole of 2.5 mm in diameter

2.2 Working Environment

Table 2-2 lists the requirements on the working environment of the C2281.

Table 2-2 Working environment

Item	Specification
Ambient temperature – operation	-10°C to +55°C
Ambient temperature – storage and transportation	-40°C to +70°C
Humidity	0% to 95%
Standby current	4.0 mA to 7.0 mA

2.3 Performance Specifications

Table 2-3 lists the performance specifications of the C2281.

Table 2-3 Performance specifications

Item	Specification
Frequency band	Transmission: 824 MHz to 849 MHz Reception: 869 MHz to 894 MHz
Polyphonic ringtones	12-chord
Voice rate	8K Enhanced Variable Rate Coder (EVRC)
Language	Simplified Chinese, Traditional Chinese, English, Portuguese, Spanish, Hindi, French, Vietnamese, Hungarian, Romanian, Russian, and Arabic

2.4 Certifications

Table 2-4 lists the certifications of the C2281.

Table 2-4 Certifications

No.	Item	Tested By
1	CDG1/CDG2/CDG3/CCF	MTNET
2	CDG1	QUALCOMM
3	Electromagnetic compatibility (EMC)	TMC
4	Specific Absorption Rate (SAR)	TMC
5	Radio frequency (RF)	TMC
6	Safety	TMC
7	FCC	HUAWEI

2.5 RF Specifications

2.5.1 RF Transmission Specifications

Table 2-5 lists the RF transmission specifications of the C2281.

Table 2-5 RF transmission specifications

No.	Item	Specification
1	Maximum transmission power	24.8 dBm
2	Minimum transmission power	-62 dBm
3	Standby power consumption	≤ -61 dBm/1 MHz

2.5.2 RF Reception Specifications

Table 2-6 lists the RF reception specifications of the C2281.

Table 2-6 RF reception specifications

No.	Item	Specification
1	Reception sensitivity	-108.5dBm
2	Inter-modulation performance	-38 dBm
3	Single tone desensitization	-26.0 dBm

2.6 Packing List

Table 2-7 lists the standard packing items of the C2281.

Table 2-7 Standard packing items of the C2281

No.	Item	Quantity
1	Travel charger	1
2	Battery	1
3	User Manual	1
4	Warranty Card	1
5	Mobile phone	1

Chapter 3 Main Functions

The main functions of the C2281 are as follows:

- SMS
- Phonebook
- Shortcut keys
- Polyphonic ringtones
- Applications
- Over-the-Air Service Provisioning (OTASP)
- Over-the-Air Parameter Administration (OTAPA)
- Supplementary services
- BREW

3.1 SMS

The C2281 allows you to send, receive and group-send messages. The phone also supports pre-defining phrases.

In the ROM-UIM mode, the C2281 can save up to 100 messages. The inbox, outbox, and voice mail box share the memory.

In the R-UIM mode, the C2281 can save up to 100 messages. You can also save messages in the UIM card and the number of messages that can be saved depends on the capacity of the UIM card.

3.2 Phonebook

The C2281 provides a large-capacity phonebook.

In the ROM-UIM mode, you can save up to 500 contacts to the phone.

In the R-UIM mode, you can save up to 500 contacts to the phone. You can also save contacts to the UIM card. The number of contacts that can be saved depends on the capacity of the UIM card.

3.3 Shortcut Keys

You can use shortcuts keys to speed-dial a phone number, mute/unmute a call or lock/unlock the keypad.

3.4 Polyphonic Ringtones

The C2281 provides 12-chord polyphonic ringtones.

3.5 Applications

The applications provided by the C2281 include calculator, alarm clock, calendar and games.

3.6 OTASP

The C2281 supports the performance specifications for OTASP in TIA/EIA/IS-683A. You can initialize the number assignment module, data options, and operation parameters. You can also generate and verify the authentication keys and program the preferred roaming list.

3.7 OTAPA

The C2281 supports the performance specifications for OTAPA in TIA/EIA/IS-683A. The network can initialize the upgrading operations, individual number assignment module, data options, operation parameters, and the specific parameters of both the service provider and the manufacturer. The network can also upgrade the preferred roaming list, generate and verify the authentication keys, as well as add and upgrade the parameters for future services.

3.8 Supplementary Services

The C2281 supports several supplementary services, including call waiting, call forwarding, voice encryption and multi-party conference call.

3.9 BREW

Through this function, you can access some specific services provided by the carrier, such as the downloading of ringtones, pictures and games. This function is available only after tests of the carrier. The BREW function is network-dependent. The quality of the network and the applications downloaded through this function can both influence the test.

All the mobile phones sold to the carrier must pass the BREW authentication. The authentication lasts for three months (for the RR1 and RR2 authentication of QUALCOMM), which needs great labor and capital input. For orders requiring less than 50000 mobile phones, it is almost impossible to reach a balance between profit and loss.

Chapter 4 Function List

Table 4-1 lists all the functions of the C2281.

Table 4-1 Function list of the C2281

Item	Sub-item	Remarks
Dial and call	Dial the recently dialed number	-
	Make a call through the phonebook	-
	Speed-dial	-
	Make an emergency call	-
Call history	Missed calls	The mobile phone can keep a maximum of 20 records for each of the missed calls, received calls and dialed calls.
	Received calls	
	Dialed calls	
	Call duration	Record the duration of a last call, received calls, dialed calls, and all records
Phonebook	Capacity	<ul style="list-style-type: none"> • ROM-UIM: The phone memory can save up to 500 contact entries. • R-UIM: The number of contact entries that can be saved in the UIM card depends on the capacity of the UIM card, but the phone software can read only 200 contact entries of the UIM card.
	Contact	<ul style="list-style-type: none"> • Phone: Each contact entry contains a name and three phone numbers. • UIM card: Each contact entry contains a name and a phone number.
	Group	Support up to 10 groups.

Item	Sub-item	Remarks
Messages	Capacity	<ul style="list-style-type: none"> ROM-UIM: Up to 100 messages can be saved in the phone. The memory is shared by the inbox, outbox, and voice mail box. R-UIM: Up to 100 messages can be saved in the phone. The number of messages that can be saved in the UIM card depends on the UIM card capacity, but the phone software can read only 40 messages of the UIM card.
	Write messages	Support the function of pre-defining messages.
	Send a message through the phonebook	-
	Send a message through the call record	-
	Group-send a message	-
Shortcut keys	Phone lock	-
	Mute	-
	View the phonebook	-
	View the inbox	-
	Write a message	-
	View the dialed calls	-
	Dial the voice mail box	-
	Speed-dial	-
	Alarm clock	-
	Calendar	-
OTASP/OTA PA	-	-
Applications	Alarm	-

Item	Sub-item	Remarks
	Calculator	-
	Calendar	-
	Games	TOYGOLF and XKID
Alert	Incoming call alert	Support the following modes: <ul style="list-style-type: none"> • Silence • Ring • Vibration • Vibration and ring • Ring after vibration
	Alarm clock alert	
	SMS receiving alert	
	Low battery alert	-
	Power-on sound	-
	Power-off sound	-
	Keypad tones	-
Display	LCD contrast	-
	Keypad and LCD backlight	-
	Wallpaper	-
	Startup animation	-
	Banner	-
Time	Date/Time/Time zone	Support the date format, time format, and time zones.
Security	Personal identification number (PIN) lock	Available only in the R-UIM mode
	Factory restore	-
	Phone lock	-
Call settings	Call waiting	-
	Call forwarding	-
	Any-key answer	-
	Auto retry	-
	One minute alert	-



Item	Sub-item	Remarks
	International call prefix	-
Visual indicator	Battery level	-
	Roaming	-
	Vibration and mute	-
	Insufficiency space for new messages	-
	Alarm clock	-
	Received Signal Strength Indicator (RSSI)	-
	Dialing	-
	Unread messages	-
	Missed calls	-

Chapter 5 Acronyms and Abbreviations

C

CCC	China Compulsory Certification
CDMA	Code Division Multiple Access
CSTN	Color Super Twist Nematic

D

DTMF	Dual-Tone Multifrequency
------	--------------------------

E

EMC	Electromagnetic Compatibility
EVRC	Enhanced Variable Rate Coder

F

FSTN	Film Super Twisted Nematic
------	----------------------------

L

LCD	Liquid Crystal Display
-----	------------------------

O

OTAPA	Over-the-Air Parameter Administration
OTASP	Over-the-Air Service Provisioning

P

PDA	Personal Digital Assistant
PIN	Personal Identification Number



PST	Product Support Tool
R	
RF	Radio Frequency
ROM	Read Only Memory
RSSI	Received Signal Strength Indicator
R-UIM	Removable User Identity Module
S	
SAR	Specific Absorption Rate
U	
UIM	User Identity Module
UTK	UIM Toolkit