Technical Specifications

of

CDMA & GSM Dual Mode

Mobile Handset

Model: D90

Version 1.0

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Qingdao Hisense Communications Co., Ltd.

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1. Product Introduction

D90 CDMA2000 1X digital mobile handset is a CDMA2000 1X digital mobile terminal product developed by Hisense itself. D90 is based on Qualcomm QSC6020 and MTK6223 chipset and works at CDMA: 800MHz and GSM: 900/1800/1900MHz frequency bands, D90 is also compatible with the IS-95A/B, CDMA2000 1X and GSM network environment. D90 is a bar type handset, dual network mode, touch panel, multi-media and camera functions are provided;

The feature highlights of D90 are dual network standby simultaneously, data service and charming metal style design.

2. General Features

Product Model	HS-D90	
Form Factor	Bar Type with built-in Antenna	
Dimensions（H×W×D）	113.4*54.8*17.2mm	
Weight	Standard	Approx 120g
Appearance Color	Black	
Product Orientation	Mid-End	
Target Market	Global Market	

3. Appearance

This ID is only for reference, the products are subject to finally evaluated and confirmed appearance.

4. Hardware Specification

Network	CDMA+GSM		
Frequency Band	CDMA: 800MHz GSM: 900/1800/1900 MHz		
Solution	CDMA: Qualcomm QSC6020 GSM: MTK MT6223		
Working Mode	R-UIM		
Vocoder	8K EVRC		
Peak Data Rate	153.6kbps		
Processor	Main Processor		ARM9
	Multi-Processor		C627
Memory	ROM	256Mbits NAND for CDMA, 64Mbits for GSM	
	RAM	64Mbits SDRAM+32Mbits SDRAM	
	Available User Memory Space	TBD	
Removable Memory Card	Micro SD card		
Main LCD	Physical Dimension		2.4″(AA)
	Resolution		QVGA
	Color Depth		256K
	Type		TFT
	Touching Screen Type		Yes, resistance
Sub-LCD	No		
Backlight Type	LED		
Number of Keystroke	Keypad Area		23
	Side key		4
Keystroke Backlight	Yes, blue		
Sensor of Saving Energy	No		
Ring Chipset	No		
Camera	Yes,1.3M		
Flash Lamp	No		
Infra-Red	No		
Bluetooth	Yes, voice		
Power off Clock	Yes		
Vibrator Motor	Yes		
FM	No		
Data Port	5 Pin Mini USB		
Power Supply Port	5 Pin Mini USB		
Antenna	Built-in		
Vehicle Power Adapter	No		
Indicator	No		

Speaker	2 Speakers		
Headset	Yes, Stereo		
Lanyard Hole	No		
Battery	Type		Li-Ion
	Capacity	Standard	1400mAh
Slot	3 (UIM, SIM , Micro SD card)		
Charging Time	<180 Minutes	Subject to finally test result	
Standby Time	100 Hours		
Talking Time	180 Minutes		

5.   Software Specification

Basic Specification	
Operating System	REX
Language	English
	Others as customers' requirements
Input Solutions	Polish input mode (word by word)
	Polish input mode (Character by character)
	English
	ABC
	Numeral
	Punctuation
	Handwriting and Virtual Qwerty Keypad
Text Editing Assistant Tools	Copy
	Paste
	English Phrase
	Expression Punctuation
Contacts	
Capacity	1000
VCARD	Yes
Content of Items	Name
	Phone Number 1
	Phone Number 2
	Home Number
	Office Number
	E-Mail
	Website Address
	Remark
	Group
	Ringtone
Group Numbers	20
Group Rings Identification	Yes

Rings Priority	Individual Rings>Group Rings>Common Rings	
Phone Number Length	32 digits	
Extension Input	P/T	
Inquiry Method	By Initial Letters	
	By Name	
	By Group	
	Proximity Search	
Delete Entries	Delete Single Entry	
	Optional Delete	
Entries Copy	Yes, between phone and card, card and card.	
View Memory Status	Yes	
Calling		
Voice Dialing	No	
IP Dialing	Yes, 5	
Speed Dialing	Yes, 20	
Incoming Call Display	Name	
	Number	
	Network	
Outgoing Call Display	Name	
	Number	
	Network	
Incoming Call Mute	Yes	
Call Restriction	Yes	
Hands Free	Yes	
Talk Time Display	Yes	
Talk Time Record	Yes	
Record Voice during Talking	No	
Record Voice when Standby	Yes	
Voice Message	Yes	
DTMF Dialing during Talking	Yes	
Answer Mode	Pressing "answer key"	
	Any key	
Auto-answer by headset	Yes	
Supplementary Service CDMA	Call Waiting	
	Call Forwarding	
GSM Network Service	Call Waiting	
	Call Forwarding	
	Call Restriction	
Call Records	Dialed	100
	Received	100
	Missed	100
SMS		

Capacity	Inbox	300
	Outbox	100
Max Length	English	160
Long SMS	Yes	
Auto Concatenate	Yes	
Voice Message	Yes	
SMS Group Sending	Max 20 entries	
	Delivery Report	
Contacts Team Group Sending	Yes	
SMS Delete	Delete Single Entry	
	Optional Delete	
Reserved Phrase	Yes	
Message Restriction	Yes	
Default Memory Setting	Phone	
	UIM Card	
View Memory Status	Yes	
MMS	No	
PIM		
Alarm Clock	Yes, Power off Alarm Clock	
Stopwatch	Yes	
Scheduler	Yes	
Notepad	Yes	
Calculator	Yes	
Calendar	Yes	
World Time	Yes	
Converter	Yes	
Reminding	Yes	
State Number Search	No	
Games	Puzzle box	
	Tetris	
	Gobang	
Multi-Media		
Camera	Yes	1.3 M
	Format	JPG
	Digital Zoom	Yes
	Brightness Adjustment	Yes
	Effect	Yes
	Frame	No
	Self Shoot	Yes
	Sequence mode	Yes
	Quality	Normal/Fine/Super
Video Shoot	Format	Mp4, 3GP

	Size	240*192	
	Time	According to memory space	
	Frame Rate	Max 15fps	
	Brightness	Yes	
	Focal length	Yes	
Audio Play	Mp3, MIDI		
Video Play	MPEG4,　3GP		
Multi-Media Player	Yes		
Data Service			
BREW	No		
Modem	Yes		
WAP	WAP 2.0		
JAVA	No		
Display Information			
Power on/off Animation	Yes		
Standby Time Display	Yes/Optional		
Provider Info. Display	Yes/Optional		
Wallpapers Display	Static Pic	4	
	Optional Pic	BMP	
Customization Interface	Theme	Yes	
Function Display	Yes		
Icon Indicating	CDMA Signal Strength		
	GSM Signal Strength		
	In Talking		
	Keypad Lock/Phone Lock		
	Roaming CDMA		
	Roaming GSM		
	1X Icon		
	WAP Service Icon		
	WAP Push Icon		
	Micro SD card		
	Bluetooth		
	SMS		
	Voice Message		
	Profile Mode		
	Alarm Clock		
	Battery		
No. of Integrated Ring Tones	15		
No. of Polyphonics	64		
Format	Mp3/MIDI		
Ring tone Setting	Incoming Rings		
	SMS Prompt		
	Keystroke		

Volume Adjustment	Ring tones
	Receiver
Power on/off Rings	On/Off
Personal Ring	Yes
Group Ring	Yes
Priority	Group>Common
Alert Mode	Rings
	Vibration
	Rings+Vibration
Warning in low battery	Yes
Profile Modes	Standard
	Quiet
	In Meeting
	In Out Door
Security Setting	
Phone Lock	Yes
PIN Setting	Yes
Others	
Auto Power on/off	Yes
Keypad Lock	Yes
Emergency Call	Yes
Reset	Yes
U-disk	Yes
PC Sync Software	Yes

6.   Technical Specifications

Communication Protocols and Technical Indices	
Mode of Access	CDMA(Code Division Multiple Access)
CDMA Protocol	IS-2000, CDMA 2000 1X
Transmitting Frequency	824～849MHz
Receiving Frequency	869～894MHz
Receiving Sensitivity	≤-104dBm

Communication Protocols and Technical Indices	
Mode of Access	GSM
Transmitting Frequency	890～915MHz, 1710~1785MHz, 1850~1910MHz
Receiving Frequency	935～960MHz, 1805~1880MHz, 1930~1990MHz
Receiving Sensitivity	≤-102dBm

Power Consumption	
Item	Standard
Talking Time	≤180 Minutes

Standby Time	≤100 Hours
Charging Time	≤3 Hours
Standby Current (both CG standby)	≤12mA

Working Condition	
Item	Description
Working Temperature	-20 ℃～+60 ℃
Storage Temperature	-30 ℃～+70 ℃
Humidity	5%~95%

7. Accessories

Travel Charger		
Input	Voltage	AC 100~240V
	Frequency	50~60Hz
Output	Voltage	5V
	Max. current	730mA
Size	59.5*27.24*42.1mm	
	Approx 60g	
Input Plug	Type –A (others as requested)	
Humidity	5%~95%	

Battery	
Item	Description
Type	Li-Ion
Capacity	1400mAh
Rated Voltage	3.7V

8. A Complete Set of Product

No.	Name	Qty.	Remark
1	Mobile Phone Body	1	Without battery
2	Battery	1	
3	Travel Charger Head	1	Form a charger with data cable
4	Data Cable	1	
5	Headset	1	
6	Driver Disk	1	
7	User Manual	1	

9. Criterion and Standard Regarding Green Environmental Protection Handset

Materials

2002/95/EC   The Europe Union Parliament and Council Promulgate the Restriction of the
                use of certain hazardous substances in electrical and electronic equipment
SN/T2004.1-2005   Hg's content measuration in Electrical and electronic product
SN/T2004.2-2005   Pb, Cd, Cr'content measuration in Electrical and electronic product
SN/T2004.3-2005   Cr6+ content measuration in Electrical and electronic product
SN/T2005.2-2005   PBBs, PBDEs' content measuration in Electrical and electronic product