



MOTOROLA

PRODUCT DESCRIPTION
Full Document

DCS 1800 Clam RAE

Project No.: A29-01

Version 1.2

Ruchi Mangalik

Jan 6, 1997

MOTOROLA CONFIDENTIAL PROPRIETARY

This document and the information contained in it is CONFIDENTIAL INFORMATION of Motorola and shall not be used, published, disclosed, or disseminated outside of Motorola in whole or in part without Motorola's consent. This document contains trade secrets of Motorola. Reverse engineering of any or all of the information in this document is prohibited.

MANAGEMENT SIGNATURES

Name	Signature	Date
Roger Kung	Corporate V.P. & GCCSD G.M.	
Ken Leonhardt	Operations	
Chris Colonna	Product Marketing Manager	
Allen White	GCCSD Product Engineering	
Doug Wick	Manufacturing	
Ray Menzel	Materials	
Vincent Cheung	Quality	
Phil Tutor	Finance	
Bernie McGill	Distribution	



REVISION HISTORY

<u>Version</u>	<u>Date</u>	<u>Name</u>	<u>Reason</u>
1.0	09-Oct-96	Mary Jo Schavitz	Initial release.
1.1	27-Nov-96	Mary Jo Schavitz	Deletion of SIM lock requirement for Malaysia.
1.2	1-6-97	Ruchi Mangalik	Add GC requirements

.....



1. INTRODUCTION

This product description describes the DCS1800 Clam RAE product for the Greater China South Asia region. This product description makes reference to the latest Asia/Pacific GSM Clam RAE product description, version 1.1, issued by Ruchi Mangalik. Features that are different for DCS 1800 are documented here.

1.1 Product Strategy

As GSM Clam RAE PD. The DCS StarTAC is part of the Signature Series and thus it must follow the Signature guidelines. There are no cosmetic differences between the DCS StarTAC and GSM StarTAC because our strategy is to be indifferent and support all technologies. We do not want to make the statement that one technology is more important than the other.

1.2 Target Markets

The countries of Malaysia, Singapore, Thailand, and Hong Kong.

1.3 Distribution Strategy

In keeping with the Global Distribution Strategy, distribution of DCS Clam RAE will be limited to channels that enhance the premium positioning that this product reflects. A distribution strategy for each country must be developed before the DCS Clam RAE can be introduced into that country. Precise distribution plans will be released closer to the launch date (expected to be January 1997).

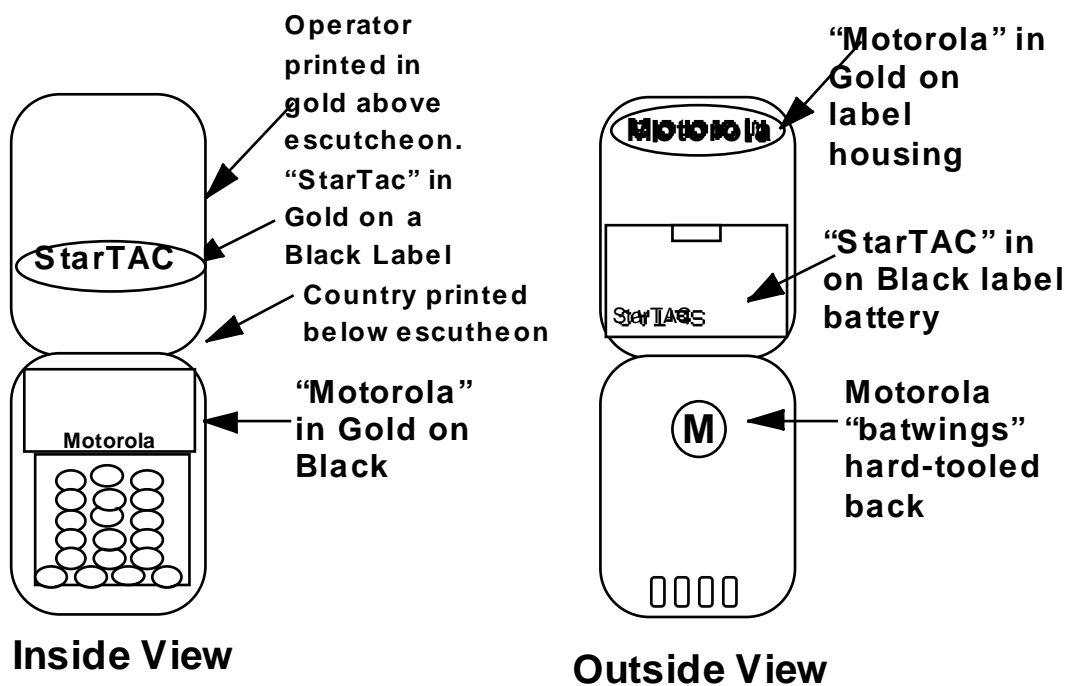
2. PRODUCT DESCRIPTION

2.1 Physical Characteristics

- **Housing**
The GCSA DCS1800 Clam RAE will use the same housing as the Motorola branded Europe DCS1800 19 key Clam RAE. The model number for the Motorola branded Europe DCS1800 19 key Clam RAE is S5993ABB.
- **Batteries**
The Auxiliary battery feature must be implemented for the GCSA DCS Clam RAE model.
- **Colour**
Initially, all models will use black plastics. However, options for colour will also be investigated. This is dependant on the core group.



- **SIM Card**
As GSM Clam RAE PD.
- **Display & Indicators**
As GSM Clam RAE PD.
- **Antenna**
The DCS1800 Clam RAE will incorporate a retractable DCS1800 antenna which stands vertical when the product is in the holster. The antenna must not interfere with the opening or closing of the Clam, either when extended or retracted.
- **Lens**
Identical to the Motorola branded Europe DCS1800 19 key Clam RAE.
- **Escutcheons**
Identical to the Motorola branded Europe DCS1800 19 key Clam RAE.
- **Keypad**
Identical to the Motorola branded Europe DCS1800 19 key Clam RAE. The alpha numeric keys will conform to ITU-T standard E.161.



As shown above, for South Asia, the country name will be tampoed below the inside escutcheon for trans-shipment purposes. For Hong Kong, the operator name will be tampoed above the escutcheon and no country name.



2.2 Key/Unique Features

The DCS1800 Clam RAE will be the first DCS 'wearable' Motorola product in the GCSA region. It will lead the range in features, size and weight. Initially, it will be positioned as an aspirational product, rather than a mainstream volume product.



Features that will differentiate this product from those of our competitors are:

- Smallest, lightest phone on the market
- Aspirational values
- Auxiliary battery concept, giving unlimited talk and standby time
- Easy to use Personality™ MMI, enhanced for large display
- Full feature set
- VibraCall™, built in, not bolted on
- Full size, retractable SIM card
- Wide range of accessories included in package

2.3 Performance Characteristics

2.3.1 Transceiver Performance

Initial estimates of DCS1800 Clam RAE performance with standard batteries are shown below:

Volume (cc)	Weight (gm)	Talk Time (Mins)	Standby Time (hours)	with Battery
80	81	-	-	Standard Transceiver only
<100	<100	70-90	20-25	LiIon 350 mAh (SNN4875 w/Noryl transceiver
100	105	70-90	20-25	LiIon 350 mAh (SNN4875) w/standard transceiver
100	110	120-140	30-38	LiIon 500 mAh (SNN4667)
109	126	210-280	60-70	LiIon 900 mAh (SNN4668)
109	125	110-140	30-35	NiMH 500 mAh (SNN4669)

Initial estimates of DCS1800 Clam RAE performance with auxiliary battery are shown below; weights and volumes are additional to the core unit (i.e. w/LiIon 500 mAh battery)

Volume (cc)	Weight (gm)	Talk Time (Mins)	Standby Time (hours)	with Battery
40	54	200-260	55-65	LiIon 900 mAh (SNN4867)

2.3.2 Charge Times

Maximum acceptable charge times are shown below.



Battery	Charge time with E.P.+ Standard Travel Charger to 95% charge
NiMH batteries	70 minutes
LiIon batteries	2 1/2 hours

The unit must feature seamless power transitions with travel charger and cigarette lighter adapter.

2.3.3 Compatible Battery Technology

As GSM Clam RAE PD.

2.3.4 Data Compatibility

As GSM Clam RAE PD.

3. EXPECTED LIFETIME

RAE is a new product platform which will evolve over time into various different product platforms. It is anticipated the DCS 1800 RAE family will last beyond the year 2000. During this time model variations will be introduced.

4. SOFTWARE AND MMI DESCRIPTION

Functional descriptions for each software and MMI feature are defined in the Europe DCS 6700 and StarTAC Software Requirements Document, version 0.2. The StarTAC will be compatible with CPHS version 3.1.

5. MODELS/VERSIONS

5.1 New Sales Models

Only the GCSA and the Motorola branded Europe models are listed below: Malaysia will not require any SIM lock mechanism.

Model Number	Brand	Description
S6373ABB	Motorola (for Malaysia)	Poly Black housing; Non-SIM-locked.



S6374ABB	Motorola (for Singapore)	Poly Black housing; Non-SIM-locked.
S6375ABB	Motorola (for Thailand)	Poly Black housing; Non-SIM-locked.
S6691ABB	Motorola (for Hong Kong)	Poly Black housing; Non-SIM-locked.
S6691ABB	Motorola (for HK Peoples Telephone)	Poly Black housing; Non-SIM-locked.
S6692ABB	Motorola (for HK New World PCS)	Poly Black housing; Non-SIM-locked.
S6693ABB	Motorola (for HK Manderin Comm)	Poly Black housing; Non-SIM-locked.
S6694ABB	Motorola (for HK Hutchison)	Poly Black housing; Non-SIM-locked.
S6695ABB	Motorola (for HK Pacific Link)	Poly Black housing; Non-SIM-locked.
S6696ABB	Motorola (for HK P Plus)	Poly Black housing; Non-SIM-locked.
S5993 ABB	Motorola (standard Europe)	Black housing; Non-SIM-locked; fully featured. (std. package)

5.1.1 Package Contents

The package contents for all packages contain the following

- SWF transceiver
- 500 mAh Li Ion Main battery SNN4667
- 900 mAh Li Ion Aux Battery SNN4867
- EP power supply (SPN4278)
- Holster (SYN5378)
- Country plug (US/UK/Euro)
- User Manual (68P09395A63)

5.1.2 Flexing Information

FEATURE	DEFAULT SETTING
SIM Lock	None



Home Zone	None
Data	9600 Baud
Earpiece volume	Maximum
Ringer	Standard Tone
Ringer Volume	High
Extended Menus	Off except for Hong Kong
Language	Automatic (English)
Keypad Tone	Normal Tones
Phone Lock	Off
Phone Lock Number	1234
Security Code	000000
Battery Saving Mode	On
Wakeup graphic	Motorola DCS StarTAC
Network Selection	Automatic
Meter During Call	Off (Hong Kong will have InComing call timer ON)
User Definable Quick Access	Yes
Key Answer Only	Off

5.2 Service Requirements

The following items are required for service:

- a Service Transceiver with IMEI, packed without any accessories/manual/etc.
- a Service Printed Circuit Board (PCB), fully phased and tested, with an IMEI.

5.3 Manual Requirements

Manual will be identical to the Motorola branded Europe DCS1800 19 key Clam RAE.

6. PACKAGING/LABELLING REQUIREMENTS

Transceiver labels

The following standard layout should be used for all models:

Note: All models should have the MC² 9600 baud logo.



Transceiver Label
40mm x 20 mm

Type: MP1-1C11	DCS 1800	Encrypted IMEI
MSN: Human Readable	S1234ABCD	
CEPT DCS IMEI: Human Readable	BABT	
Made in USA by Motorola	Logo	
IMEI: Bar Code		
CE	MC ²	
Logo	Logo	



Box labels

The following standard layout should be used for all models:

Box Label
101.6mm x 63.5mm

Made in the USA	Recycle	CE
MOTOROLA DCS StarTAC	Logo	Logo
Model Number: Human Readable	T-Option: Bar Code Human Readable	
Model Number: Bar Code		
MSN: Human Readable	EAN Bar Code	
MSN: Bar Code		
IMEI: Human Readable		
IMEI: Bar Code		
Sequence Number: Human Readable		
Sequence Number: Bar Code		

7. PRODUCT NAME/MARKET NAME

The market name for this product is the DCS StarTAC™.



8. TYPE APPROVAL

Full Type Approval must be obtained for the DCS 1800 StarTAC before final ship authorisation. Both internal and field operator testing must be conducted in the locations where this phone is to be sold before final ship authorisation, also.

9. ACCESSORIES & COMPATIBILITY

9.1 Current

Part Number	Name	Compatibility Notes
SNN4875	Slim Main 350 mAh LiIon Battery	
SNN4667	Slim Main 500 mAh LiIon Battery	
SNN4668	Standard Main LiIon 900 mAh Battery	
SNN4867	Slim AUX LiIon 900 mAh Battery	
SPN4278	Power Adapter	
SYN4656	UK Adapter Plug	
SYN4655	European Adapter Plug	
SPN4435	Rapid Desktop Charger	
SYN4241	Cigarette Lighter Adapter	
SYN5378	Standard Belt Holster	
SYN4653	Slimline Belt Holster	
SYN5621	Holster (Aux) Norvl	
SYN5622	Slimline Holster (Non-Aux) Norvl	
S5338A	Hands Free Car Kit	
SYN4898	Leather Pouch-Black	
SYN4899	Leather Purse PAK-Black	
S6319	Collect™ 1+	
S6320	Collect™ 2 for Australia	
S5702A	PC Card 9600 Baud Data Interface	

9.2 Planned

Part Number	Name	Compatibility Notes
SNN4577	Auxiliary: Extra Capacity 1000mAh NiMH	
SNN4669	Standard 500 mAh NiMH	
TBD	Double Stacked 1800 Lithium Ion battery	
SNN4609	LiIon 1400 mAh	



