



Core Product Description

**Alex**

**Dual Slot StarTAC**

**GSM900**

**Stage I**

**Project Nos.**

**Alex - Dual Slot StarTAC**

**A28-32**

**Alex – Dual Slot StarTAC (phase 2) requested**

Issue 2.0

Note: This document is also available on Lotus Notes at the following location:

- EMEA Product Description
- - Alex Dual Slot StarTAC
- - - Section 8. Appendix
- - - - Alex PD v1.0.doc (An MS Word Attachment)

**Guy Lanrezac**

**November 21, 1998**

**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.

November 21, 1998  
Motorola Confidential Proprietary



## INTERIM-RELEASE SIGNATURES

Name	Signature	Date
Laurence John	EMEA Product Marketing	
Ruchi Mangalik	GCSA Product Marketing	
John Calderone	Accessories Product Marketing	
James Lefebvre	Engineering Manager	
Glenn Riese	Electrical Engineering Manager	
Jim Barber	Mechanical Engineering Manager	
Dave Trahan	Accessories Engineering Manager	
Ron Blohm	Software Engineering Manager	
Steve Akin	MMI Software Section	
Philip Brodessen	Flensburg Manufacturing	
Dirk Klostermeier	Flensburg Materials	
Michael Petersen	Flensburg Distribution	

Paul Royer



November 21, 1998  
 Motorola Confidential Proprietary

---

Program Manager

November 21, 1998  
Motorola Confidential Proprietary



**MANAGEMENT SIGNATURES**

<b>Name</b>	<b>Signature</b>	<b>Date</b>
Ralph Pini	European General Manager and VP for GSM	
Mark Powell	European Product Marketing	
Paul Pelski	Asia Product Marketing	
Paul Dal Santo	European Core Group Engineering	
Henry Lee	Software Operations Manager	
Jim Gentile	European Finance	
Phil Tutor	Asia Finance	
Finn-Lund Andersen	European Manufacturing	
Hiram Burrows	Materials	
Jorge Santos	Quality Group	
Walter Kleine	European Distribution	
Bernie McGill	Asia Distribution	
Ian Park	European Service	
Vincent Cheung	Asia Service	



**November 21, 1998**  
**Motorola Confidential Proprietary**

## REVISION HISTORY

<u>Version</u>	<u>Date</u>	<u>Name</u>	<u>Reason</u>
Issue 1.0	27-Aug-98	Guy Lanrezac	Initial release of 'Alex' Product Description.
Issue 1.1		Guy Lanrezac	Insertion of Part Numbers
Issue 1.2	18-Sep-98	Guy Lanrezac	Update on Performance figures Update on Software Feature Set (ZAP refresh)
Issue 2.0	23-Sep-98	Guy Lanrezac	Introduction of Phase 2



November 21, 1998  
Motorola Confidential Proprietary

## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	PRODUCT STRATEGY .....	1
1.1	TARGET CUSTOMERS .....	2
1.2	PRODUCT TIERING STRATEGY .....	2
1.3	TARGET MARKETS .....	2
1.4	DISTRIBUTION STRATEGY.....	2
1.5	ADVERTISING .....	2
<b>2</b>	<b>PRODUCT DESCRIPTION.....</b>	<b>3</b>
2.1	PHYSICAL CHARACTERISTICS .....	3
2.1.1	Housing.....	3
2.1.2	Display.....	4
2.1.3	Lens .....	4
2.1.4	Keypad .....	4
2.1.5	LED Indicators.....	4
2.1.6	Connectors.....	4
2.1.7	SIM Card .....	4
2.1.8	Antenna .....	4
2.2	PERFORMANCE CHARACTERISTICS .....	5
2.2.1	Radio Performance .....	5
2.2.2	Battery Performance .....	5
2.2.3	Battery Charge Times .....	5
2.2.4	Compatible Battery Technology.....	6
2.2.5	Data Compatibility.....	6
<b>3</b>	<b>TIMING, DEMAND AND FINANCIAL TARGETS .....</b>	<b>6</b>
3.1	INTRODUCTION .....	6
3.2	EXPECTED LIFETIME .....	6
<b>4</b>	<b>SOFTWARE AND MMI DESCRIPTION .....</b>	<b>7</b>
4.1	FLEXING.....	8
<b>5</b>	<b>MODELS/VERSIONS.....</b>	<b>8</b>
5.1	NEW CORE SALES MODELS.....	8
5.2	OTHER NEW SALES MODELS .....	9
5.3	NEW SALES MODEL STRUCTURES.....	10
5.4	EUROPEAN MODEL, CHARGER PLUG AND MANUAL REQUIREMENTS .....	10
5.5	SERVICE REQUIREMENTS .....	15
<b>6</b>	<b>PACKAGING/LABELLING REQUIREMENTS.....</b>	<b>15</b>
6.1	BOX SIZES AND PACKAGING MATERIALS .....	15
6.2	LABELS.....	17
6.3	EANS .....	17
<b>7</b>	<b>PRODUCT NAME/MARKET NAME .....</b>	<b>20</b>
<b>8</b>	<b>SAMPLE SCHEDULE.....</b>	<b>20</b>
<b>9</b>	<b>TYPE APPROVAL .....</b>	<b>20</b>
<b>10</b>	<b>ACCESSORIES &amp; COMPATIBILITY .....</b>	<b>20</b>
10.1	CURRENT.....	20
<b>11</b>	<b>APPENDIX 1: DESIGN &amp; FLEX.....</b>	<b>21</b>



November 21, 1998

Motorola Confidential Proprietary

November 21, 1998  
Motorola Confidential Proprietary





## 1 INTRODUCTION

This document describes the new generation of dual slot phones. Dual Slot StarTAC will be available in GSM Phase 2 in the GSM 900 band. This same product could be made available in the GSM 1800 band or GSM 1900 band. The market requirements goal for ship acceptance of the GSM 900 Alex is Q41998

**In Q1 1999, Alex Phase 2 will replace Alex Phase 1. The main enhancements of this version will be the support of USSD as a data bearer allowing faster transactions and the support of the hands-free accessory kit – essential for the Asian Market.**

### 1.1 Product Strategy

Dual Slot StarTAC will be differentiated from the key competitors by the following advantages:

- Best in class form factor for a smart card capable phone (weight and volume)
- Best smart card storage handling

Dual Slot StarTAC will be differentiated from the key competitors by the following advanced operator features:

- Third party Smart Card capable (over & above SIM)
- SIM Tool Kit Class 2 & Class 3 (phase 2)
- Dedicated Key to SIM Tool Kit menu
- Dual Slot SIM Tool Kit commands (standardized in SMG9)

Dual Slot StarTAC will be differentiated from the key competitors by the following advanced features:

- Ergonomic styling
- Large graphic display
- Vibracall
- Easy access to Smart Card applications
- **Colours & Soft Touch feel (being investigated for phase 2)**

Market research has identified that end users are looking for easier ways to do financial transactions by "getting rid of the coins" and "reducing the number of cards".

Dual Slot StarTAC will be marketed as the first Smart Card handset allowing financial transactions. As an example, the Smart Card terminal will allow an "electronic purse" card to be reloaded over the air. This will offer a new relation between the phone and the consumer. Future stages will allow the end user to do direct financial transactions, ticketing and loyalty schemes over the air. In addition, the dual slot StarTAC will offer secure access to remote

services, authentication. The Dual Slot StarTAC is to gain the business and consumer markets where state of the art technology influences decision purchase.

### 1.1 Target Customers

Alex will be defined at mid to high tier consumers seeking premium products with state of the art technology. These consumers will typically be international credit card users (Amex, Premier or Gold). The purchase decision will be motivated by the incredible form factor and the world's first Smartcard compatible handset. They will by definition already value the benefits of smart cards and the benefits of mobile telephony.

Client Target:

- Alex will be focused on key and influential targets that will help Motorola to:
- Create and support this new product category,
- Champion standards internationally,
- Establish security guidelines (processes),
- Champion Motorola's certification and type approval through VISA, Mastercard & Banksys etc... institutions.

### 1.2 Product Tiering Strategy

This handset will be tiered above the existing StarTAC 85. The premium price will be justified by the improvements on the world's first Smartcard compatible handset. At first, this product will be bundled with airtime, thus giving a subsidized package price.

### 1.3 Target Markets

The first target markets are in the process of being identified. UK, France, Belgium, Portugal, Singapore and Hong Kong are for the moment the most active countries liable of supporting Smartcard infrastructure.

### 1.4 Distribution Strategy

At first dual slot StarTAC will be packaged with an operator SIM card meaning that the distribution of the dual slot StarTAC will be tightly linked to both GSM subscription & smart card services issuers. This will drive the following issues: dual phone / package-branding, promotion, distribution, and customer care. Direct mailing through the Value Added Service Providers (Smart Card issuer) will be heavily used.

### 1.5 Advertising

Alex is the next step of Motorola's leading technology in mobile handsets. While conserving the market's most wearable phone form factor, Motorola offers the world first Smartcard handset that combines traditional GSM digital cellular phone features with

electronic cash services - paving the way for mobile ATM, remote ticketing, pay-as-you-use telephony and on-line payment transactions using smart cards.

It is this smart card capability that transforms it into a new generation of cellular phone. One capable of converging remote connectivity with electronic cash and service transactions. No more queuing for currency, travel tickets or payment - in the future, simply insert the relevant smart card into the Motorola Smartcard phone, then dial-up, book and pay for goods and services, access bank account details and even download money onto your smart cash card.

Alex is the first secure device that allows everyone from telecoms operators and smart card manufacturers to banks and financial institutions, to unlock the potential of the smart card. It creates a platform for the future development of mobile e-purse, remote electronic commerce and numerous other wireless services.

As well as generating new profitable value added services for the industry, the phones will also create new levels of convenience for users - a new cashless society where they can instantly access electronic cash and services at any time, wherever they are.

## 2 PRODUCT DESCRIPTION

### 2.1 Physical Characteristics

#### 2.1.1 Housing

**Main housings:**

Alex housing will be based on the existing StarTAC 85. The opening flip will need to be modified. The top part of the flip will be thicker to accommodate the small card reader. This will enable the use of standard StarTAC batteries

• **Escutcheon:**

The escutcheons will be identical to the StarTAC 85 with the exception of the one below the speaker (flip open) which will be 25% bigger. The reason to increase the size of that escutcheon is to help multi party co-branding. All smart card schemes will have 3 major players: Motorola, the GSM operator and the scheme owner (financial or transportation institution).

• **Colors:**

Two new colors will be investigated. Escutcheons may be changed to compliment these new colors

• **Texture:**

The texture will be similar to the existing StarTAC 85. . **Soft Touch is being investigated for Phase 2.**

**2.1.2 Display**

The Alex display will be identical to the StarTAC 85. The display will be a 96 x 32 pixel grid display with two rows of icons (top and bottom). Icons will include signal strength, battery charge indicator, in service, roaming, and SMS notification.

**2.1.3 Lens**

The Alex lens will be identical to the StarTAC 85 display. The lens will have a black border with gold Motorola printing centered at the top of the lens.

**2.1.4 Keypad**

The Alex keypad will be specific. The MR key will be replaced by the call voicemail key. The color of the marking will be near white. This keypad has already been defined for StarTAC 150 (Georges).

Side buttons: Three side buttons will be utilized, similar to the existing StarTAC 85 and 70. The top and bottom buttons will control volume control and phone book scrolling, while the middle "smart" button will access the phonebook and place the call if held.



**2.1.5 LED Indicators**

Status LED Indicators will be located on the back, upper right side of the phone. Conversion: green will mean in service, red will mean no service, blue will mean service roaming.

**2.1.6 Connectors**

Alex will support connectivity to peripheral devices through a Rae style connector. Through this connector, Alex will support rapid charging, CLA device, data cable

**2.1.7 SIM Card**

Alex will be the world's first mobile phone to simultaneously accept two SIM cards. One small SIM format below the battery and one large SIM (ISO) like the StarTAC 85.

**2.1.8 Antenna**

The antenna will support 900 MHz frequencies. Alex will ship with a fixed, black antenna.

## 2.2 Performance Characteristics

### 2.2.1 Radio Performance

The following targets should be met for free space radio performance of the Alex platform:

Fixed antenna: better than 8700 antenna up

### 2.2.2 Battery Performance

Below are estimates for talk and standby times for Alex. These figures must be verified by Engineering before promotional material is published.

Volume (cc)	Weight (gr)	Dimensions (mm)	Talk Time* (mins)	Standby Time* (hours)	with Battery
105	113	98.3x57.3x26	110-150 min	40-50 hrs	Slim 500 mAh LiIon
115	128	98.3 x 57.3 x 30.6	110-150 min	40-50 hrs	Slim 500 mAh NiMH
114	130	98.3 x 57.3 x 30.6	200-270 min	70-95 hrs	Extra Capacity 900 mAh LiIon
N/A	N/A	N/A	180-240 min	65-85 hrs	Slim Auxiliary 900 mAh LiIon
150	167.5	99.9 x 57.3 x 43.7	280-390 min	95-130 hrs	Slim Auxiliary 900 mAh LiIon + 500 mAh LiIon Main
154.4	184	99.9 x 57.3 x 48.3	380-500 min	130-175 hrs	Slim Auxiliary 900 mAh LiIon + 900 mAh LiIon Main

\* All battery performance times are approximate and will vary depending on network configuration, band and status, and the functions selected. Times are quoted as a range from DRX=2 to DRX=9. Support of DTX mode is dependent on network support and may not be available in all areas.

### 2.2.3 Battery Charge Times

Maximum acceptable charge times are shown below.

Battery	Charge time with E.P. Standard Travel Charger to 95% charge	Charge time with E.P. Desktop Charger to 90% charge
Slim 500 mAh LiIon	2.5 hours	
Slim 500 mAh NiMH		
Extra Capacity 900 mAh LiIon	2.5 hours	
Slim Auxiliary 900 mAh LiIon	2.5 hours	
Slim Auxiliary 900 mAh LiIon + 500 mAh LiIon Main	5 hours	

Battery	Charge time with E.P. Standard Travel Charger to 95% charge	Charge time with E.P. Desktop Charger to 90% charge
Slim Auxiliary 900 mAh LiIon + 900 mAh LiIon Main	5 hours	

### 2.2.4 Compatible Battery Technology

Alex will be compatible with all existing RAE style batteries, including LiIon and NiMH technologies

### 2.2.5 Data Compatibility

Alex will be able to send and receive data at 9600 bps with a CELlect card like the StarTAC 85. Note that Alex Phase 2 will work with the SmartCell + Soft modem

## 3 TIMING, DEMAND AND FINANCIAL TARGETS

### 3.1 Introduction

The Dual Slot StarTAC ship accept date is targeted for January 99. Phase 2 is expected for S2 '99.

### 3.2 Forecast

Region	Operator	Scheme type & owner	Motorola Part Number	First shipment date	Trials volume	Target Forecast for 1999
<b>Alex Phase 1</b>						
EMEA UK	Cellnet	Mobile ATM Barclaycard	SE0420AB1B4	Q1 '99	1000	25'000
EMEA France	France Telecom	On Line Payment	TBD	Q1 '99	100	25'000
<b>Alex Phase 2</b>						
ASIA Hong Kong	Smartone	Mobile ATM TBD		Q2 '99	TBD	25'000
ASIA Singapore	Mobile 1	Mobile ATM Nets		Q2 '99	TBD	50'000

### 3.3 Expected Lifetime

The Alex Phase 1 platform is expected to ship into the market until phase 2 completely replaces it in Q3 '99.

#### 4 SOFTWARE AND MMI DESCRIPTION

Alex will use the Personality™ II interface. It will take the complete feature set of the StarTAC 85, plus the ZAP refresh features listed below.

Tracking Number	Description	Status for launch	Priority
0151	SMS-MT delete first	Committed	1
0152	DHFA enhancement package	Committed	1
0127	GSM voicemail support	Committed	1
0145	AoC Charging improvements	Committed	2
0024	Auto-Read MT-SMS	Committed	1
0042	Seamless Power A (External power sources)	Committed	1
0198	Smart Key (place/answer calls with Smart Key). Note: answer call with Smart Key is requested for phase 2, once Alex phase 2 supports accessory headset	Committed	1
0165	Stop Call Alert with Volume Keys	Committed	1
0025	Improved Call Divert	Committed	1
0002	Phase II MMIC/MMIS	Committed	1
0003	Phase II SMS	Committed	1
0043	Seamless Power B (DHFA)	Committed	1
0131	Delayed Power On & Off flex control	Committed	1
0004	IP-SMS management via PC	Committed	1
0137	IP-Phonebook	Committed	1
0082	Multiparty Calling	Committed	1
0166	Call Transfer	Committed	1
0156	Service Provider name	Committed	1
N/A	Support for DSP car kits	Committed	1
N/A	Invalid battery feature	Committed	1
N/A	Erase Last 10 numbers when SIM is removed	Committed	1
N/A	Asian SMS	Committed	1
N/A	SIM Tool Kit unicode	Committed	1
0039	6 x SIM interface	Committed	1
N/A	16K SIM	Not committed	2
0155	Increase SIM ADN locations from 155- 255	Committed	1
??	Increase SIM SMS locations from 35 to 75	Committed	1
0115	SMS Delete all messages option	Committed	1
0023	MO-SMS reply to MT-SMS	Committed	1
0014	SMS Phone book access	Committed	1
??	Change CLI lookup to use 8 digits	Committed	1
??	Conference call / call transfer improvement	Committed	1
	New Quick Access items		

Tracking Number	Description	Status for launch	Priority
	Show Date	Committed	1
	Show Credit Remaining	Committed	1
	SIM selection	Not requested	1
	Eastern European Language	Committed	1
	EFR	Committed	1
	Asian Subsidy Lock Enhancement	Committed	1
	SMS unique Alert Tone	Committed	1
	<b>GSM phase 2 USSD</b>		1
	<b>Class 3 SIM Tool Kit Command (Send USSD)</b>		1

Software builds for the Asian and European models will initially be separate. However, the aim is to combine the core feature set builds, with Asian specific features being added afterwards. When this integration is achieved the only differences between the two feature sets will be as follows:

	European Models	Asian Models
<b>Languages</b>	Full European Language set	Full European Language set PLUS Simplified Chinese Complex Chinese Thai Vietnamese with tonal marks Bahasa - Indonesian
<b>Additional Features</b>	- none -	All Asian SMS Chinese Date Format Chinese PLMN and In country PLMN Roaming Support for two bitmaps: 15x15 and 15x16 SIM Tool Kit Unicode

#### 4.1 Flexing

See software requirement document version 1.3 (available on Lotus Notes at the following location - EMEA Product Description, Alex Dual Slot StarTAC, Section 8. Appendix.

## 5 MODELS/VERSIONS

### 5.1 New Core Sales Models

Model Number	Brand	Description
--------------	-------	-------------



SE0419AB1**	Motorola	Core Motorola Dual Slot StarTAC Phase 1
	Motorola	Core Motorola Dual Slot StarTAC Phase 2

Note: xx = language; cc = colour

## 5.2 Other New Sales Models

The models listed below are described in separate variant product descriptions.

Model Number	Region Responsible for PD	Short Description	Unique Items vs Core
SE0420AB1B4	UK	Cellnet / Barclays Dual Slot StarTAC	<ul style="list-style-type: none"> <li>• Co-branded speaker escutcheon (part number: TBD)</li> <li>• Co-branded keypad (part number: TBD)</li> <li>• Co-branded box artwork (part number: TBD)</li> </ul>
TBD	Asia	Alex Phase 2 for Nets	
TBD	France	Alex Phase 2 for France Telecom	

## 5.3

## New Sales Model Structures

Model	Transceiver	Manual	Accessories	Other
Alex Phase 1	Kit: SWF3569A  Escutcheons: See Appendix	Kit: See below Manual: See Table 1 below Literature Kit: See Table 2 below	Battery (500 mAh): SNN Mini rae Charger: SPN Plug: See Table 1 below	Holster (Plastic): SYN4653 Generic Art Box:  Blue Pulp insert:  Flip Escutcheon: See Appendix 2
Alex Phase 2				

## 5.4 European Model, Charger Plug and Manual Requirements

Manuals will be single color, single language, A6, POD configuration. Table 1. below shows all relevant part numbers. A separate 'Literature Kit' will be structured to take additional leaflets, an Accessories Brochure, Sales Promotions and special Warranty cards. Table 2 shows all relevant part numbers. Where no items are listed in the Literature Kit, the pack does not need to be included; if Accessory leaflets are not available at time of launch, product may still ship.

Table 1a. Chargers and Manuals	Charger Plug	Manual		Priority	Market or Language
		Kit Number	Part Number		
Alex Phase 1 Country Part N°					
SE0419AB1A1	SYN4655	SJN8655A	6809421A26		Danish
SE0419AB1B1	SYN6718 or SYN4656	SJN8656A	6809421A27		English (UK)
SE0419AB1C1	SYN4655	SJN8657A	6809421A28		Finnish
SE0419AB1D1	SYN4655	SJN8658A	6809421A29		Dutch
SE0419AB1E1	SYN4655	SJN8659A	6809421A30		French
SE0419AB1F1	SYN4655	SJN8660A	6809421A31		German
SE0419AB1G1	SYN4655	SJN8661A	6809421A32		Greek
SE0419AB1H1	SYN4655	SJN8662A	6809421A33		Italian
SE0419AB1J1	SYN4655	SJN8663A	6809421A34		Norwegian
SE0419AB1K1	SYN4655	SJN8664A	6809421A35		Portuguese
SE0419AB1L1	SYN4655	SJN8665A	6809421A36		Spanish
SE0419AB1M1	SYN4655	SJN8666A	6809421A37		Swedish
SE0419AB1N1	SYN4655	SJN8659A & SJN8658A			Belgium Package
SE0419AB1P1	SYN4655	SJN8656A, SJN8659A & SJN8662A			Swiss Package
SE0419AB1Q1	SYN4655	SJN8667A	6809421A38		Turkish

Table 1a. Chargers and Manuals Alex Phase 1 Country Part N°	Charger Plug	Manual		Priority	Market or Language
		Kit Number	Part Number		
SE0419AB1R1	SYN4655	SJN8668A	6809421A39		Hungarian
SE0419AB1S1	SYN4655	SJN8669A	6809421A40		Slovakian
Other models	n/a	SJN8670A	6809421A41		Arabic
SE0419AB1T1	SYN4655	SJN8656A, SJN8659A & SJN8670A	English, French & Arabic		North Africa Package
SE0419AB1U1	SYN4655	SJN8671A	6809421A42		Russian
SE0419AB1V1	SYN4655	SJN8672A	6809421A43		Lithuanian
SE0419AB1W1	SYN4655	SJN8673A	6809421A44		Polish
SE0419AB1Y1	SYN4655	SJN8674A	6809421A45		Czech
SE0419AB1Z1	SYN4655	None	None		No language
SE0419AB1B2	SYN4655				English for South Africa
SE0419AB1C2	SYN4655	SJN8675A	6809421A46		Croatian
SE0419AB1F2	SYN4655				German for Austria
SE0419AB1G2	SYN6718 or SYN4656				Cyprus
SE0419AB1P2	SYN4655	SJN8676A	6809421A47		Romanian
SE0419AB1S2	SYN4655	SJN8677A	6809421A48		Slovenian
SE0419AB1T2	SYN6718 or SYN4656	SJN8656A, SJN8659A & SJN8670A	English, French & arabic		Gulf States Package
SE0419AB1U2	SYN4655	SJN8678A	6809421A49		Ukrainian
SE0419AB1X2	SYN4655	SJN8679A	6809421A50		Israeli
SE0419AB1Z2	SYN6718 or SYN4656	None	None		No language
SE0419AB1A3	SYN4655	SJN8680A	6809421A51		Latvian
SE0419AB1C3	SYN4655	SJN8681A	6809421A52		Estonian
SE0419AB1A4	SYN4655	SJN8682A	6809421A53		Bulgarian

Table 1b. Chargers and Manuals Alex Phase 2 Country Part N°	Charger Plug	Manual		Priority	Market or Language
		Kit Number	Part Number		
	SYN4655				Danish
	SYN6718 or				English (UK)

Table 1b. Chargers and Manuals  Alex Phase 2 Country Part N°	Charger Plug	Manual		Priority	Market or Language
		Kit Number	Part Number		
	SYN4656				
	SYN4655				Finnish
	SYN4655				Dutch
	SYN4655				French
	SYN4655				German
	SYN4655				Greek
	SYN4655				Italian
	SYN4655				Norwegian
	SYN4655				Portuguese
	SYN4655				Spanish
	SYN4655				Swedish
	SYN4655				Belgium Package
	SYN4655				Swiss Package
	SYN4655				Turkish
	SYN4655				Hungarian
	SYN4655				Slovakian
	n/a				Arabic
	SYN4655				North Africa Package
	SYN4655				Russian
	SYN4655				Lithuanian
	SYN4655				Polish
	SYN4655				Czech
	SYN4655				No language
	SYN4655				English for South Africa
	SYN4655				Croatian
	SYN4655				German for Austria
	SYN6718 or SYN4656				Cyprus
	SYN4655				Romanian
	SYN4655				Slovenian
	SYN6718 or SYN4656				Gulf States Package
	SYN4655				Ukrainian

Table 1b. Chargers and Manuals  Alex Phase 2 Country Part N°	Charger Plug	Manual		Priority	Market or Language
		Kit Number	Part Number		
	SYN4655				Israeli
	SYN6718 or SYN4656				No language
	SYN4655				Latvian
	SYN4655				Estonian
	SYN4655				Bulgarian

<b>Table 2: Literature Kits</b>	<b>Kit Number</b>	<b>Market</b>	<b>Kit Contents</b>
<b>Alex Country Part N°</b>			
SE0419AB1A1		Denmark	Accessory Leaflet -
	SJN8591AB2	Generic English	Accessory Leaflet – 68P09415A86
SE0419AB1B1	SJN7832B	UK	Accessory Leaflet – 68P09415A86 Registration Card – 6809408A20
SE0419AB1C1		Finland	Accessory Leaflet -
SE0419AB1D1	SJN7836A	Netherlands	Accessory Leaflet - Registration Card – 6809408A24
SE0419AB1E1	SJN7833A	France	Accessory Leaflet - 68P09415A89 Registration Card – 6809408A21
SE0419AB1F1	SJN7829B	Germany	Accessory Leaflet – 68P09415A90 Registration Card – 6809408A22 24 Hour Service – 68P09405A07
SE0419AB1G1		Greece	Accessory Leaflet -
SE0419AB1H1	SJN7831B	Italy	Accessory Leaflet – 68P09415A92
SE0419AB1J1		Norway	Accessory Leaflet -
SE0419AB1K1	SJN7912A	Portugal	Accessory Leaflet - Warranty Card – 68P09405A09
SE0419AB1L1	SJN7834B	Spain	Accessory Leaflet – 68P09415A95 Registration Card – 6809408A23 Warranty Card – 68P09405A08
SE0419AB1M1		Sweden	Accessory Leaflet -
SE0419AB1N1		Belgium	Accessory Leaflet -
SE0419AB1P1	SJN8274B	Switzerland French German Italian	Accessory Leaflet – 68P09415A89 Accessory Leaflet – 68P09415A90 Accessory Leaflet – 68P09415A92 Warranty Card – 68P09413A83 Warranty Card – 68P09413A81 Warranty Card – 68P09413A82
SE0419AB1Q1		Turkey	Accessory Leaflet -
SE0419AB1R1		Hungary	Accessory Leaflet -
SE0419AB1S1		Slovakia	Accessory Leaflet -
		Arab/Eng./French	Accessory Leaflet -
SE0419AB1T1		North Africa	Accessory Leaflet -
SE0419AB1U1		Russia	Accessory Leaflet -
SE0419AB1V1		Lithuania	Accessory Leaflet –
SE0419AB1W1		Poland	Accessory Leaflet -
SE0419AB1Y1		Czech Republic	Accessory Leaflet -
SE0419AB1Z1	none	Generic- Euro Plug	None
SE0419AB1B2		South Africa	Accessory Leaflet -

<b>Table 2: Literature Kits</b>	<b>Kit Number</b>	<b>Market</b>	<b>Kit Contents</b>
<b>Alex Country Part N°</b>			
SE0419AB1C2		Croatia	Accessory Leaflet -
SE0419AB1F2	SJN7830B	Austria	Accessory Leaflet – 68P09415A90 Registration Card - 24 Hour Service – 68P09414A16
SE0419AB1G2		Cyprus	Accessory Leaflet -
SE0419AB1P2		Romania	Accessory Leaflet -
SE0419AB1S2		Slovenia	Accessory Leaflet -
SE0419AB1T2		Gulf States	Accessory Leaflet -
SE0419AB1U2		Ukraine	Accessory Leaflet - Invalid Battery -
SE0419AB1X2		Israel	Accessory Leaflet -
SE0419AB1Z2	none	Generic- UK Plug	None
SE0419AB1A3		Latvia	Accessory Leaflet -
SE0419AB1C3		Estonia	Accessory Leaflet -
SE0419AB1A4		Bulgaria	Accessory Leaflet -

Note: Italian packages also require the following unique items added to their BOMS:

- 1 x Loyalty Card (68P09413A84)
- 2 x Security stickers (5402318T04)

## 5.5 Service Requirements

The following items are required for service:

	<b>Alex Phase 1</b>	<b>Alex Phase 2</b>
A Service Transceiver with IMEI, with no accessories / manual /etc		
A spare Printed Circuit Board (PCB), fully phased and tested, with an IMEI.		

## 6 PACKAGING/LABELLING REQUIREMENTS

### 6.1 Box sizes and packaging materials

Carton Top

In all regions, a half Rae style box size will be used.

All regions will use a new carton cover design consistent with the "Wings" brand / advertising campaign. The artwork has been generated by the advertising agency, McCann-Erickson, and approved for use. Because Distribution centers use different carton formats, two part numbers may be required:

Carton Top part number with Wings design, 2 piece design: TBD

Carton Top part number with Wings design, 1 piece design: TBD

#### Insert

The insert for the current StarTAC 85 / 70 product will be used for the 2-piece design.

Pulp tray insert part number, 2-piece design: 5609034K01.

All packaging materials should be environmentally friendly. The Pulp insert may be colored Motorola blue.

**Artwork:** for Stage I, WINGS branded artwork will be defined.

## 6.2



## Labels

Transceiver labels placed in the factory will include 'o MOTOROLA' and 'Made in ....'.

Transceiver labels placed in Distribution will include the following information:

'**Model:**' plus model number

'**Type:**' plus Type name

'**MSN:**' plus MSN in human readable format

'**IMEI:**' plus IMEI in human readable format (with section spacers and check digit)

IMEI in bar code 128 format

'**CE0168X**' in characters a minimum of 5mm in height

Space must be allowed for the code '**S/L**' for SIM Locked models and for co-branding operator names of up to 10 letters.

European Box labels will include the following:

'**Made in ....**' in the header

'**Motorola**' plus product name (ie '**StarTAC xxx**')

'**GSM900**' in the header

'**CE**' in the header

Der Grüne Punkt mark in the header

Sequence number in human readable and bar code (format 39)

Model number in human readable and bar code (format 39)

MSN in human readable and bar code (format 39)

IMEI in human readable (with section spacers and check digit) and bar code (format 39)

EAN in human readable and bar code

T-Options in human readable and bar code

Space must be allowed for the OBO text.

NOTE: The presentation of IMEI will be the new Phase II format, which matches the IMEI is the display (ie with 15th check digit) in all human readable forms.

## 6.3 EANs

Black models will be defined for all countries; other colors will be defined as required.

Mkt/Colour	Alex	EAN	Mkt/Colour	Alex	EAN
Denmark: - Black - TBD - TBD	SE0419AB1A1		Poland: - Black - TBD - TBD	SE0419AB1W1	
UK: - Black - TBD - TBD	SE0419AB1B1		Czech Rep. : - Black - TBD - TBD	SE0419AB1Y1	
Finland: - Black - TBD - TBD	SE0419AB1C1		No Ln (Euro): - Black - TBD - TBD	SE0419AB1Z1	
Netherlands: - Black	SE0419AB1D1		South Africa: - Black	SE0419AB1B2	

Mkt/Colour	Alex	EAN	Mkt/Colour	Alex	EAN
- TBD - TBD			- TBD - TBD		
France: - Black - TBD - TBD	SE0419AB1E1		Croatia: - Black - TBD - TBD	SE0419AB1C2	
Germany: - Black - TBD - TBD	SE0419AB1F1		Austria: - Black - TBD - TBD	SE0419AB1F2	
Greece: - Black - TBD - TBD	SE0419AB1G1		Cyprus: - Black - TBD - TBD	SE0419AB1G2	
Italy: - Black - TBD - TBD	SE0419AB1H1		Romania: - Black - TBD - TBD	SE0419AB1P2	
Norway: - Black - TBD - TBD	SE0419AB1J1		Slovenia: - Black - TBD - TBD	SE0419AB1S2	
Portugal: - Black - TBD - TBD	SE0419AB1K1		ME (Gulf) - Black - TBD - TBD	SE0419AB1T2	
Spain: - Black - TBD - TBD	SE0419AB1L1		Ukraine: - Black - TBD - TBD	SE0419AB1U2	
Sweden: - Black - TBD - TBD	SE0419AB1M1		Israel: - Black - TBD - TBD	SE0419AB1X2	
Belgium: - Black - TBD - TBD	SE0419AB1N1		No Ln (UK): - Black - TBD - TBD	SE0419AB1Z2	
Switzerland: - Black - TBD - TBD	SE0419AB1P1		Latvia: - Black - TBD - TBD	SE0419AB1A3	
Turkey: - Black - TBD - TBD	SE0419AB1Q1		Estonia: - Black - TBD - TBD	SE0419AB1C3	
Hungary: - Black - TBD - TBD	SE0419AB1R1		Bulgaria: - Black - TBD - TBD	SE0419AB1A4	
Slovak Rep. : - Black - TBD - TBD	SE0419AB1S1		Russia: - Black - TBD - TBD	SE0419AB1U1	

Mkt/Colour	Alex	EAN	Mkt/Colour	Alex	EAN
ME (NAfrica) - Black - TBD - TBD	SE0419AB1T2		Lithuania: - Black - TBD - TBD	SE0419AB1V1	

7

**PRODUCT NAME/MARKET NAME**

TBD

**8 SAMPLE SCHEDULE**

This list will be constantly updated as new requirements are submitted.

**9 TYPE APPROVAL**

Full Phase II Type Approval will be necessary. Type approval should simultaneously be sought in Asia. Type approval should then be supported and obtained in the following countries outside the European Community:

- Russia
- Hungary
- Poland
- Ukraine
- Israel

The phone, the Rapid Travel Charger and Data accessories must also have CE approval.

All models must be Year 2000 compliant.

**10 ACCESSORIES & COMPATIBILITY**

All accessories are already available, unless otherwise stated.

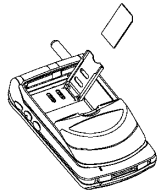
**10.1 Current**

Part Number	POS Number	Name
SYN4241	CLA9000	Cigarette Lighter Adapter
SPN4325	CHA9100	Desktop charger
SPN4278	CHA9000 (Eur) CHA9010 (UK)	Universal Rapid Travel Charger
SYN6718	n/a	UK Plug
SYN4655	n/a	Euro Plug
SYN4694	n/a	Aus/NZ Plug
SYN4696	n/a	Indian Plug
SYN4657	n/a	US Plug
SKN4821	n/a	PC Card to Phone Connector Cable
S6112	PCC9100	CELLect™ 1+ German/English
S6113	n/a	CELLect™ 1+ French
S6114	n/a	CELLect™ 1+ Italian / Spanish
CD1181	n/a	CELLect™ 3 Denmark
CD1177	n/a	CELLect™ 3 Germany
CD1183	n/a	CELLect™ 3 Finland
CD1179	n/a	CELLect™ 3 France
CD1175	n/a	CELLect™ 3 Italy

Part Number	POS Number	Name
CD1182	n/a	CELLect™ 3 Norway
CD1178	n/a	CELLect™ 3 Sweden
CD1180	n/a	CELLect™ 3 Switzerland
CD1176	PCC9300	CELLect™ 3 UK
SNN4937	BLM9050	Slim 500 mAh LiIon main battery
SNN4936	BLM9050	XCap 900 mAh main LiIon battery
SNN4938	BNM9050	Standard 500 mAh main NiMH battery
SNN4867	BLA9090	Standard 900 mAh LiIon auxiliary battery
SNN4938	BNA9100	XCap 1000 mAh NiMH auxiliary battery
CD1259	HFK9300	Deluxe DSP car kit with external handset
CD1261	HFK9200	Standard DSP car kit
S7059		External Handset for DSP car kit
SYN5378		Standard belt clip (for auxiliary battery)
SYN4653	CCA9100	Slim belt clip (for main batteries only)
SYN6456	CCA9000	Leather Pouch
<b>SLN3940</b>	<b>HSK6000</b>	<b>Headset Adapter and Headset/Microphone for Alex Phase 2</b>
	<b>PCC6000</b>	<b>SmartCollect soft modem</b>

## 11 APPENDIX 1: DESIGN & FLEX

### A1 Diagram of Alex



**A2 Initial Colored Housing Requirements**

Alex	Black	TBD	TBD
Lens Part Number	Same as StarTAC 85		
Lens Surround	Black		
Lens Printing	Gold Pantone xxx		
Front Escutcheon Part Number	Same as StarTAC 85		
Front Escutcheon Background	Black		
Front Escutcheon Printing Finish	Relief		
Front Escutcheon Printing	Gold Pantone xxx		
Earpiece Escutcheon Part Number			
Back Escutcheon Background	Black		
Earpiece Escutcheon Printing	Gold Pantone xxx		
Keypad Part Number	38-09105S		
Keypad Background	Black		
Keypad Printing	Orche Gold Pantone 465C White Red Pantone 192C Green Pantone 354C		

**A3 Flexing Defaults**

Below is a list of the most important default flexing settings:

<b>Feature</b>	<b>Flex Default</b>
Operating Bands	GSM 900
Network Selection	Automatic
Network Search Frequency	Medium
SIM Lock	None
Home Zone	None
VMWI Type	GSM Phase II+ implementation (if supported)
Emergency Number	112
Data	9600 baud
Extended Menus	Off
Ringer	Standard Tone
Ringer Volume	Maximum
Earpiece Volume	Maximum
Keypad Tone	Normal Tones
Greeting Tone	On
Language	Automatic
Keypad Lock	Flip locks keypad when closed
Key Answer Only	Off
Phone Lock	Off
Phone Lock Number	1234
Security Code	000000
Battery Saving Mode	On
In-Call Display	Off
Single Alert Timer Length	30 seconds
Repetitive Timer Length	60 seconds
Phone Book Access	No Restrictions
CLI Alpha Tag Lookup	On
One-Touch dialing	to SIM Memory
Quick Access	User definable
Voicemail Number	from Phone Memory
LED Status Indicator	On
Power key delays	Delay on Power On and Power Off (if supported)

**Wake Up Graphics:**





A4 Menu Requirements

QA	MENU						
Quick Access	Phonebook	Call Related Features	Messages	Phone Setup	Network Selection	Call Meters	Accessory Setup
Assigned Functions: 1- Find Name 2- Add to SIM 3- Outgoing Messages 4- Battery Meter 5- Phone Lock Now 6- Mute On/Off 7- Read Messages 8- Vibrate On/Off 9- Divert On/Off  <b>Available Functions:</b> • Find by Name • Find by Location • Add Entry to Phone • Add Entry to SIM • Battery Meter • Phone Lock Now • Phone Mute On/Off • Ring Volume • Vibracall On/Off • Ringer On/Off • Divert All Voice Calls • Switch Memory • Read Messages • Outgoing Messages • Message Editor • Last Calls Received • Last Call Charge • Last Call Timer • Talk and Fax • Show My ID Next Call • Restrict my ID • Key Answer Only • SIM selection	• Personal Numbers • Find Entry By Name • < Personal Numbers > • Call Number • Modify Name or No • Erase Name and No • Find Entry By Location • < Personal Numbers > • Call Number • Modify Name or No • Erase Name and No • Add Entry • Add To Phone Memory • Add To SIM Card Mem • Check Capacity • Check Phone Capacity • Check SIM Capacity • Prevent Access • To SIM Card Memory • To Phone Memory • To Phone & SIM Mem • No Memory Restriction • Copy SIM Memory • Show Services • Last Ten Calls • Last Calls Made • Last Calls Received • Erase All Numbers • My Phone Number(s) • < MSISDN List > • Fixed Dialing <sup>2</sup> • View Fixed Dial List • < Fixed Dial List > • Setup Fixed Dialling • < Enter PIN2 > • On • Off • Edit Entry • < Fixed Dial List > • Add Entry • Erase Entry • One Touch Dial Setting • To Phone Memory • To SIM Card • To Fixed Dial List <sup>2</sup>	• Show Battery Meter • Restrict My Phone Number • Show ID On Next Call • Restrict ID On Next Call • Call Diverting • Divert Voice Calls • Divert When Unavail. • Submenu-1 • Divert All Voice Calls • Submenu-1 • Detailed Diverting • If Busy • Submenu-1 • If Not Reachable • Submenu-1 • If No Answer • Submenu-1 • Divert Fax Calls • Submenu-1 • Divert Data Calls • Submenu-1 • Cancel All Diverting • SIM selection • <b>Select Active SIM</b> • <b>SIM 1</b> • <b>SIM2</b> • <b>Select Default SIM</b> • <b>SIM 1</b> • <b>SIM 2</b> • Talk and Fax • On/Off • Call Waiting • On/Off • Call Barring • Bar Outgoing Calls • Int'l Calls • Int'l Calls Ex Home • All Calls • Off • Bar Incoming Calls • When Roaming • All Calls • Off • Cancel All Barring • Change Bar Password • Key Answer Only • On • Off	• Call Voicemail • Received Messages • < Message List > • Delete Message • Return Call • Edit Message • < Message Editor> • Send Message • Store Message • Go To Next Message • Outgoing Messages • < Message List > • Send Message • Edit Message • < Message Editor> • Send Message • Store Message • Delete Message • Go To Next Message • Message Editor • Send Message • Store Message • Cell Broadcast • On/Off • Message Settings • Voicemail Number • Service Centre • Expiry Period • Outgoing Message Type • Text • Fax • X400 • Paging • E-mail • ERMES • Voice	Select Phone Line Line 1 Line 2 • Adjust Ring Volume • < Volume Keys > • Ring or Vibrate • Ring Only • Vibrate Only • Vibrate Then Ring • No Ring Or Vibrate • Ringer On or Off • On/Off • Set Ringer Tone • Standard Tone ... etc • Phone Lock • Automatic Lock • On/Off • Lock Now • Change Unlock Code • Require SIM Card PIN • On/Off • Change SIM PIN Code • Change SIM PIN2 Code <sup>2</sup> • On/Off • Extended Menus • On/Off • Show Time and Date • Set Time and Date • Set Time Format • Language Selection • Dansk • ... • ... • Türkce • Automatic • Change Greeting • Battery Saving Mode • On/Off • Select Keypad Tones • Normal Tones • Single Tones • No Tones • Phone Status • Status Review • Master Reset • Master Clear	• Available Networks • < PLMN List > • Register Now • Make Preferred • Network Search • Registration Preferences • Automatic Search • Manual Search • Frequency of Search • Slow Search • Medium Search • Fast Search • Continuous Search • Preferred Networks • Add Network To List • Choose From Available • Choose From Known • Add New Network code • Show List Of Networks • < PLMN List > • Move To New Locn. • Delete Selection • Find New Network	• Show Call Charges <sup>2</sup> • Show Last Call • Total For All Calls • Credit Remaining • Show Call Timers • Show Last Call • Total For All Calls • Reset All Timers • Set Audible Call Timers • Single Alert Timer • On/Off • Repetitive Timer • On/Off • Set In-Call Display • Show Time Per Call • Show Charge Per Call <sup>2</sup> • Show Total Call Charges <sup>2</sup> • No In-Call Display • Call Charge Settings <sup>2</sup> • < Enter PIN2 > • Reset Call Charges • Set Total Charge Limit • On/Off • Set Charge Type • Units • Currency • Lifetime Timer	• Mute Car Radio • On/Off • Automatic Answer • On/Off • Automatic Handsfree • On/Off • Safety Timer • On/Off • Auxiliary Alert • On/Off  <b>Submenu-1</b> • On • Voicemail • Other Number • Off

Me  
on;  
shc  
Bo  
cor  
in I  
me  
app  
Ph:  
onl  
\*\*  
be  
No  
Flig  
III)

