



Product Description



Alex - Dual slot StarTAC

Created By: Guy Lanrezac-WPGL01 on 29/04/98 at 19:33
Category: Composition

Version Number: **4**

Hot Spot to PR Number Assignment database. This Hot Spot for use by ECSG personnel only.
[Click in Hot Spot, to view, or to generate a request for a Product Release \(PR\) number.](#)

PR Number: **A28-32**

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Insert Table in field below to define key changes. Go to Menu -> Create -> Table. Make table 4 columns wide.
Enter brief summary of any updates below:

Change Control:

Version Number	Date	Editor	Key Changes
Draft 0.1	April 29th	Guy Lanrezac	
Draft 0.2	May 13th	Guy Lanrezac	
Draft 0.3	May 20th	Guy Lanrezac	
Draft 0.4	June 1st	Guy Lanrezac	

Insert Table in field below to define release approvals. Go to Menu -> Create -> Table. Make table 3 columns wide.
When ready for release, submit for signatures. Define who signed below.
Each subsequent version change requires release signatures.

Release Approval Summary:

Version Number	Signed by	Date
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Market Name:
Dual Slot GSM 900 StarTAC 85

Ship Authorization date:
(use format DDMMYY)

Give a general introduction for this product requirement.
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

Signaling Type: GSM

Define Key Selling Points and Message:
Dual Slot StarTAC will be differentiated from the key competitors by the follwoing advantages:

Best in class form factor (weight and volume)
Best smart card storage handling

Dual Slot StarTAC wil lbe differentiated from the key competitors by the following advanced operator features:

Third party Smart Card capable (over & above SIM)
SIM Tool Kit Class 2
Dedicated Key to SIM Tool Kit menu
Dual Slot Sim Tool Kit commands (standardised 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

Product Strategy

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.
This is a unique product, the first of a new category of product that Motorola intends to dominate. This category is all about allowing Smart Cards to work in MOBILE environments (eg Smart Card ticked - Mobile Ticketing).
The category facilitates new supporters, partners, channels to market.

Define Product Tier (High, Mid, or Low):

High
Thought is being given to a low tier product for pre-pay applications.

Define Distribution Channel:

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 mailing through the Value Addes Service Providers (Smart Card issuer) will be heavily used.

Define Competitors:

There are no competitors to date shipping a smart card handset. The only trial which gets closest is the Alacatel One Touch Pro with Barclays, Gem Plus and Cellnet.
Competitive intelligence have informed us that Siemens and Alcatel are preparing a dual slot handset. Nokia are known to defend a different category of handsets (with a small SIM) using RF & infra-red capabilities.

Define Key Target Customers:

Consumer Target:
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:
1/ create and support this new product category,
2/ champion standard internationaly,
3/ establish security guidelines (processes),
4/ champion Motorola’s certification and type approval through VISA, Mastercard & Banksys etc... institutions.

Define product tiering strategy, and any planned variants, for this product:

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

Define Models to be Replaced by this Product:

Place cursor in field below. Go to Menu, select Create -> Table, then define number of rows you require, by 3 columns.

Model Name	Model Number	Comments
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Define Target Markets:

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

Define Advertising Requirements, Specifications to Advertise, and Key Message to be delivered:

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.

Define Phone Physical Characteristics. Insert drawings, photos, or other representation if available.

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 accomodate the small card reader. This will enable the use of standard StarTAC batteries. Line drawings will be made available at a later stage.

Define Housing Physical Characteristics. Insert drawings, photos, or other representation if available.

The back housing will be identical as the StarTAC 85 with the exception of the circled M which will be in gold as per the StarTAC 130 (Kramer).

Define Battery Door Physical Characteristics. Insert drawings, photos, or other representation if available.

Not relevant

Define Display Physical Characteristics. Insert drawings, photos, or other representation if available.

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.

Define Lens Physical Characteristics. Insert drawings, photos, or other representation if available.

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.

Define Keypad and Keypad Board Physical Characteristics. Insert drawings, photos, or other representation if available.

The Alex keypad will be specific. The MR key will be replaced by a circled M key. The colour of the marking is to be defined (between white or gold).



Define Escutcheon Physical Characteristics. Insert drawings, photos, or other representation if available.

The interior escutcheon below the speaker will differentiate Alex from other StarTAC platforms. The name or number is under elaboration: StarTAC Smart, like what was done for StarTAC voice. If this was the chosen name, then the circled M key could be replaced by a key with "Smart" written on it. A number could also be a possibility to remind the dual slot capability (StarTAC 200).

Define Antenna Physical Characteristics. Insert drawings, photos, or other representation if available.
The antenna for Alex is identical to the StarTAC 85

Define Connectivity Physical Characteristics. Insert drawings, photos, or other representation if available.
Alex will support connectivity to peripheral devices through a Rae syle connector. Through this connector, Alex will support rapid charging, CLA device, data cable, and headset adapter.

Define SIM Card, and SIM Card Reader Physical Characteristics. Insert drawings, photos, or other representation if available.
Alex will be the worlds 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.

Define any other physical characteristics.
Status LED Indicator: A status LED will be utilized on the back, upper right side of the phone. Conventional color coding will be used: green will mean in service, red will mean no service, and orange will mean in service roaming.

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.

Define Transceiver Performance:

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 5 columns wide.

Volume (cubic cm)	Weight (grams)	Talk Time (minutes)	Standby Time (hours)	With Battery (Name)
TBD	TBD	TBD	TBD	Slim 350 mah Li Ion
TBD	TBD	TBD	TBD	Slim 500 mah Li Ion
TBD	TBD	TBD	TBD	Standard 900 mah Li Ion
TBD	TBD	TBD	TBD	AAA 500 mah NiMH
TBD	TBD	TBD	TBD	Standard 900 mah Li Ion plus 900 mah Aux Batt

All times are approximate and will vary depending on netwrok and status, and the functions selected. Standby times are quoted as a range from DRx = 2 to DRx = 9. Talktimes are quoted as a range from DTx off to DTx on. Support of DTx mode is dependent on netwrok support and may not be available in all areas.

Define Battery Technology compatibility and Security requirements:
Alex will be compatible with all existing RAE style batteries, including Li Ion and NiMH technologies

Define Charge Times with the sharger shipped as standard:

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 3 columns wide.

Battery	Charge time with E. P. Standard Travel Charger to 90 % charge (Minutes)	Charge time with E. P. Desktop Charger to 90 % charge (Minutes)
NiMH batteries	70 mn	
LiIon batteries	150 mn	

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

Define Data Compatibility:
Alex will be able to send and recieve data at 9600 bps with a CELlect card like the StarTAC 85. Note that Alex will not work with the SmartCell + Soft modem.

Define any requirements in general terms, or define overall requirements scope:

Key Software Requirements:

Define Key Software Requirements. Insert drawings, photos, or other representation if required, after table.

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 5 columns wide.

Tracking Number	Description	Status - First Launch	Status - Main Launch	Priority
*from Software Requirement document version 1.2				
All Software Requirements are specified in the Official Software Requirement version 1.2				
2.1*	Multiple card management	Committed		1
2.2*	Change Requests following Sydney SMG9 meeting	Committed		1
2.3*	Support of Asia Language	In definition, not committed		1
6.1.1*	SAT menu selection via dedicated key	In definition, not committed		1

Key Hardware Requirements:

Define Key Hardware Requirements. Insert drawings, photos, or other representation if required, after table.

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 5 columns wide.

Tracking Number	Description	Status - First Launch	Status - Main Launch	Priority
Please see attached document				

Define Flex Requirements. This is the list of most important default flexing settings.
Insert drawings, photos, or other representation if required, after table.

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 2 columns wide.

Feature	Flex Default
Operating Bands	GSM 900
Network Selection	Automatic
Network Search Frequency	Medium
SIM Lock	None
Home Zone	None
CPHS Feature Package	Off
VMWI Type	GSM Phase II+ implementation (April launch)
Emergeny Number	112
Data	9600 baud
Extended Menus	On
Ringer	Standard Tone
Ringer Volume	Maximum
Earpiece Volume	Maximum
Keypad Tone	Normal Tones
Greeting Tone	On
Language	Automatic

Keypad Lock	Clam 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
Turbo-dialling	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

Insert Wake Up Graphic required:

Define Menu Requirements.
Insert graphic detail for new quick access icons, after table.

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 3 columns wide.
Quick Access

Assigned Functions:

- 1- Find Name
- 2- Add to SIM
- 3- Call Voice mail
- 4- Battery Meter
- 5- Phone Lock Now
- 6- Phone Mute On/Off
- 7- Read Messages
- 8- Vibrate On/Off
- 9- Divert On/Off

Available Functions:

- Find by Name
- Find by Location
- Add Entry to Phone
- Add Entry to SIM
- Call Voice mail
- Battery Meter
- Phone Lock Now
- Phone Mute On/Off
- Ring Volume
- Vibracall 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

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 7 columns wide.

Phone Book	Call Related Features	Messages
Personal Numbers	Show Battery Meter	Call Voice mail
Find Entry By Name	Restrict My Phone Number	Received Messages
<Personal Numbers>	Show ID On Next Call	<Message List>
Call Number	Restrict ID On Next Call	Go to Next Message
Modify Name or No	Call Diverting	Delete Message
Erase Name and No	Divert When Unavail.	Return Call
Find Entry By Location	Submenu-1	Edit Message
<Personal Numbers>	Divert All Calls	Outgoing Messages
Call Number	Submenu-1	<Message List>
Modify Name or No	Detailed Diverting	Send Message
Erase Name and No	Divert Voice Calls	Edit Message
Add Entry	Divert All Voice Calls	Message Editor
Add To Phone Memory	If Busy	<Message Editor>
Add To SIM Card Mem	If No Answer	Send Message
Check Capacity	If Not Reachable	Store Message
Check Phone Capacity	Divert Fax Calls	Go To Next Message
Check SIM Capacity	Divert Data Calls	Cell Broadcast
Prevent Access	Cancel All Diverting	On/Off
To Phone Memory	Talk and Fax	Message Settings
To SIM Card Memory	On/Off	Voice mail Number
To Phone & SIM Mem	Call Waiting	Service Centre
No Memory Restriction	On/Off	Expiry Period

Show Services

Last Ten Calls

Last Calls Made

Last Calls Received

Erase All Numbers

My Phone Number(s)

<MSISDN List>

Fixed Dialling²

View Fixed Dial List

<Fixed Dial List>

Setup Fixed Dialing

<Enter PIN2>

On

Off

Edit Entry

<Fixed Dial List>

Add Entry

Erase Entry

One Touch Dial Setting

To Phone Memory

To SIM Memory

To Fixed Dial List²

Call Barring

Bar Outgoing Calls

Int'l Calls

Int'l Calls Ex Home

All Calls

Off

Bar Incoming Calls

When Roaming

All Call

Off

Change Bar Password

Key Answer Only ***

On

Off

Outgoing Message Type

Text

Fax

X400

Paging

E-mail

ERMES

Voice

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 7 columns wide.

Phone Setup

Network Selection

Call Meters

Accessory Setup

Adjust Ring Volume	Available Networks	Show call charges ²	Mute car radio
<Adjust Ring Vol>	<PLMN List>	Show last call	On/Off
Ring or Vibrate	Register Now	Total for all calls	Automatic answer
Ring Only	Make Preferred	Credit remaining	On/Off
Vibrate Only	Network Search	Show Call Timers	Automatic hands free
Vibrate then ring	Registration Preferences	Show last call	On/Off
No ring or vibrate	Automatic Search	Total for all calls	Safety Timer
Set ringer tone	Manual Search	Reset All Timers	On/Off
Standard tone...etc	Frequency of Search	Set Audible Call Timers	Auxiliary Alert
Set ringer Tone 2	Medium Search	Single Alert Timer	On/Off
Stand Tone ...etc	Fast Search	On/Off	
Phone Lock	Continuous Search	Repetitive timer	
Automatic Lock	Preferred Networks	On/Off	
Lock Now	Add Network To List	Set In-Call Display	
Require SIM card PIN	Choose From Available	No In-Call Display	
On	Choose From Known	Show Time Per Call	
Off	Add New Network	Call Charge Settings	
	Commande		
Change SIM PIN code	Show List Of Networks	<Enter PIN2>	
Change SIM PIN2 code ²	Find New Network	Reset Call Charges	
New security code		Set Total Charge Limit	
Extended Menu		On / Off	
On/Off		Set Charge Type	
Show time and date		Units	
Set time and date		Currency	
Set Time Format		Lifetime Timer	
Language selection			
Dansk			
Tyrkce...			
Battery saving mode			
On/Off			
Select keypad tones			
Normal tones			
Single tones			
No tones			
Phone status			
Status Review			
Master Reset			
Master Clear			

Define Box , Box Insert, and Overpack requirements. Identify if these are common existing designs, or new designs. Insert or attach drawing, or photos, if available.

Standard Box pack configuration.
Define standard model complement. Identify all components which go into this pack configuration.

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 4 columns wide.

Configuration

Contents

Quantity

Comments

Extended Box pack configuration.
Define extended model complement, (more items than standard model complement).
Identify all components which will go into this pack configuration.

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 4 columns wide.

Configuration	Contents	Quantity	Comments
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Define Packaging, Manual and Label Artwork requirements. Identify which items require a unique artwork.
Insert or attach drawing, or photos, if available.

Define any unique package Labeling required for this product. Include special requirements such as TIM Metricola numbers, etc.
Include all labels, including transceiver, packaging, accessories, etc.

Insert or attach drawing, or photos, if available.

EAN Numbers for each product type, for each market:
Define EAN Numbers:

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 4 columns wide.

Market (Country)	Product Name	EAN Number	Comments
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Define Current Accessories and Compatibility to this product:

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 3 columns wide.

Model, Kit, or Part Number	Accessory Name	Compatibility Notes
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Define Planned Accessories and Compatibility to this product:

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 4 columns wide.

Model, Kit, or Part Number	Accessory Name	Compatibility Notes	Availability Date
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Define Type Approval Requirements, such as GSM Phase 2, and other Approval Requirements, such as CE Compliance, E Mark Compliance, etc. Include compliance specification number definition where required.
Financial type approvals on security need to be assessed from financial institutions such as VISA, Mastercard, NETS (Singapore scheme), Banksys.

Hot Spot to Assembly Number Assignment database. This Hot Spot for use by all personnel.
Click in Hot Spot, to view, or to generate a request for model, kit, or assembly numbers.

New Sales Models:

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 3 columns wide.

Sales Model NumberBrandDescription

New Field Service Models:

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 3 columns wide.

Field Service Model NumberBrandDescription

Define New Sales Model Content for the First Core Product. Include all model, kit, or item numbers:

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 5 columns wide.

ModelsTransceiverManualAccessoriesOther

Define any upcoming variants required, beyond this core product introduction.
These programs will be separately defined, with their own product description, etc.:

Hot Spot to Assembly Number Assignment database.
Click in Hot Spot, to view, or to generate a request for model, kit, or assembly numbers.

Define Manual requirements, and any translation priorities for the various models. Attach "01R" documents if applicable.

Place cursor in [] below header. Go to menu, select Create -> Table. Select number of rows you require, by 5 columns wide.

ModelsManual Kit NumberManual Part NumberLanguage MarketTranslation Priority

Define Core Schedule Milestone Requirements:

Customer Name

Product Required

Comments

Attach any additional information required: