DATA SHEET

PalmSource™ Feature Phone

PalmSource Feature Phone delivers a great user experience at a low cost for phone vendors.

Highlights:

- A total man machine interface (MMI) solution for today's mobile phones
- Highly cost-efficient solution
- Mobile Telephony and Data
- Wireless Messaging - SMS, MMS and email
- Multimedia Support
- Wireless Internet - HTTP, HTML, WAP
- Advanced Graphics Solutions
- Flexible configuration

PalmSource Feature Phone Overview

A Complete Solution

PalmSource Feature Phone is a fully functional development environment and an MMI for mobile phones. It includes virtually all the applications users expect - phone book to SMS, MMS, browser, camera, and more. It is a self-contained, complete solution that is designed to be quickly adapted by phone makers/vendors with minimal effort, substantially reducing time to market. The PalmSource complete solution approach provides significant benefits to customers, as they need only deal with one company for integration, licensing, and support.

Small, Fast and Effective - A Highly Cost-Efficient Solution

PalmSource Feature Phone is proven technology and runs efficiently with only 1MB of SRAM with a complete suite of applications. Most other MMI solutions require 2 MB or more SRAM space for a comparable solution, which increases the cost of the phone. In today's competitive market, any saving on the Bill-Of-Materials (BOM) is significant. PalmSource Feature Phone is designed to be inherently more reliable because all the components of the software solution, including MMS, browser, and input methods have been developed by one company and are designed to work together.

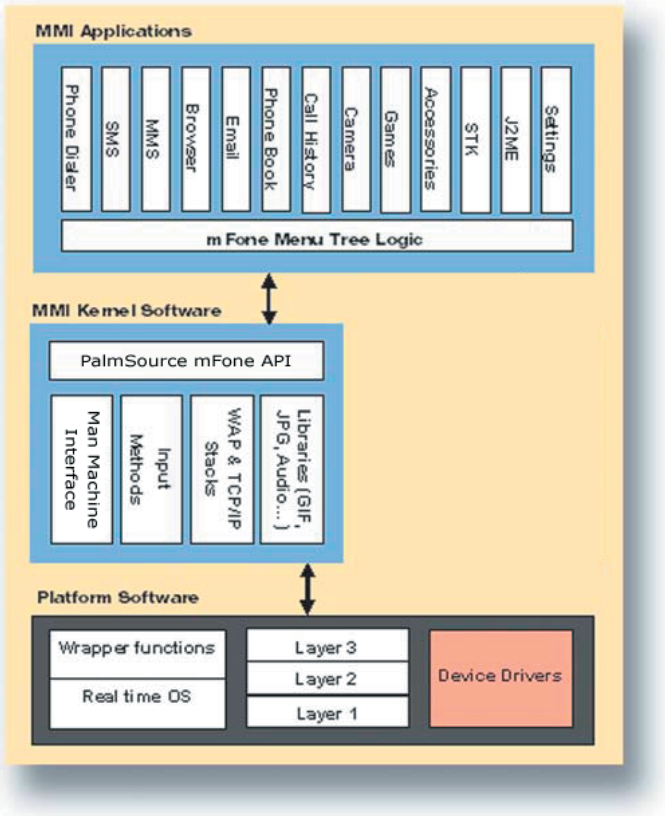
A Rich Set of Features

PalmSource Feature Phone supports the popular features found in today's feature phones. It includes libraries for decoding GIF, JPEG, BMP, animated GIF, and BMP list graphic formats as well as advanced applications such as J2ME and much more.

A Flexible Solution To Meet Your Market Demands

PalmSource Feature Phone is designed to be easily configured to support different hardware configurations. It supports different LCD sizes, such as 54x96, 128x160 and 176x220, and TFT, STN color LCD, and black/white LCD screens. The user interface is easy to customize, and the tools and development environment make it simple for vendors to add new applications to differentiate their products.

PalmSource Feature Phone Architecture



Platform

The Man Machine Interface

PalmSource Feature Phone includes an MMI engine that provides a convenient and effective programming model for application developers.

Windowing system

The windowing system manages the windows in Z-order. An application can be built to support multiple windows. A child window can be created from a parent window. It has built-in modal dialog boxes for alerts, hints, and error reporting.

Event Handling

The PalmSource Feature Phone event queue is designed to manage all system events. Three sources may generate application events: the GSM/GPRS protocol stack, keypad, and timer. These events are dispatched to applications by the event dispatch routine.

LCD API

The LCD API provides ways for applications to draw on the LCD screen, including the following functions:

- Drawing functions for dot, line, rectangle, and circle.
- Character string display and area filling functions.
- Decoding and displaying functions for GIF, JPEG, BMP, and WBMP.
- Playing functions for Animated GIF, BMP LIST, WAV, etc.

WAP & TCP/IP Protocol Stacks

PalmSource Feature Phone includes its own WAP 1.2.1 and WAP 2.0 protocol stacks. The WAP stack has the following features:

- Supports WTLS
- Supports WTP SAR

It also provides a TCP/IP protocol stack for those RTOS that do not include TCP/IP.

Input Methods

A patented input method is provided that provides powerful input methods and features for both Chinese and English input. It has a compact core with minimal memory requirements and is very fast. It includes the following capabilities:

- Chinese PinYin: A phonetic system that is the most popular input method for Chinese users. It uses a patented method that increases text entry speed by reducing key presses per character or word. It includes a Chinese word lexicon of over 70,000 Chinese words.
- Chinese Stroke Method: This is a stroke based input mode that follows the national standard for Chinese character stroke composition. This mode also makes use of the Chinese word lexicon.
- English: This mode provides efficient input of English characters or words. It contains a lexicon of more than 15,000 common English words.
- Numeric: for entering digits (0-9).
- Symbols: for entering symbols.

Multimedia

PalmSource Feature Phone provides libraries to enable sharing of common functions among applications, including:

- GIF decoding library
- JPEG decoding library
- Animated GIF playing library
- WAV decoding library

MMI Kernel Windowing System

- Single task with multiple windows, application suspension and resume

Event handling

- System events, network events, user-defined events, and event broadcasting

Tools

Development Tools

A full-featured SDK is provided to allow application development for the PalmSource Feature Phone platform. The SDK includes:

PC Simulator

PC Simulator is a useful tool to develop applications. It uses Microsoft Visual C++ as the development environment. Developers can develop, debug, and test applications on the PC before they compile and download to the phone. This maximizes efficiency and minimizes development time.

UI Tools

The UI Tools include means for generating fonts with different styles, creating animated icons, converting pictures for the MMI, etc.

PalmSource Feature Phone Application Development

The process of developing new applications is made easier by taking the following steps:

- Develop a flow chart of the application
- Design the user interface
- Develop the application on the PC Simulator
- Compile, download, and debug the application on the handset

Graphic Controls

- Single-line Text (Static, Autoscrolling)
- Multiple-line Text (Static, Autoscrolling)
- Menu (Text, Image, Animated)
- Input Window (Digit, Phone Number, Password, Text)
- ListBox (Single, Multiple, Text, Image)
- DialogBox (Hint, Error, Modal, Non-Modal)
- Picture (WBMP, BMP, GIF, JPEG)
- Animation (BMP LIST, GIF)
- Progress Bar, Scroll Bar, Soft Icon, Soft Key, etc.

Input Methods

- PinYin, Stroke based, Word, English

Applications:

Basic:

- Phone Book, Call History, SMS
- Games (Boxman, Snake)
- STK (SIM Tool Kit)
- Accessories: Calendar, Calculator, Time Zone, Scheduler, Tasks, Unit conversion, Currency Exchange, Memo, Alarm, etc.
- Settings: Phone, Supplementary Services, Network, Data

Advanced:

- WAP 1.2.1 or WAP 2.0 compliant protocol stacks
- Email (POP3, SMTP and IMAP4)
- Browser: WAP Browser or WAP/WEB dual mode Browser, WML1.3 and/or partial HTML4.0
- MMS (OMA MMS 1.1, 1.2)
- Camera: Album management, picture editing sending pictures by MMS
- MP3 player
- J2ME support

System Requirements

Basic Configuration

(PalmSource Feature Phones Kernel and Basic Applications)
CPU: 5 MIPS
FLASH: 1M
RAM: 256 K
OS: RTOS (Nucleus, VRTX, or other)

Advanced Configuration

(PalmSource Feature Phone Kernel, Basic and Advanced Applications)
CPU: 5 MIPS
FLASH: 2M
RAM: 512 K
OS: RTOS (Nucleus, VRTX, or other)

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