

## Fastrack Supreme

# GSM/GPRS/EDGE with unlimited expandability

Fastrack Supreme is a versatile Plug & Play Wireless CPU® that will carry your applications well into the future. It has been designed to accommodate any additional features you can imagine, thanks to a revolutionary, open standard Internal Expansion Socket which you can populate with an expansion card from Wavecom – or one of your own.

### SECURE CELLULAR INTERNET

Prevent hacker attacks by using our Security software Plug-In to connect your sales terminal, meter, vehicle, asset tracking or monitoring product via GSM, GPRS or high speed EDGE to the cellular Internet highway.

### POWERFUL CORE APPLICATION PROCESSING

Every Fastrack Supreme features a Wavecom Q26-family Wireless CPU®: a powerful central processing unit with an ARM9 32 bit, 26-104MHz core, programmable via any combination of AT commands, C and Lua.

### FASTRACK = YOUR PRODUCT

By designing your product value as an expansion card you save time and money in cellular learning curve, certification, mechanical design and time to market. Fastrack can now become *your* product.

### UNHEARD-OF EXPANDABILITY

Add additional IO connectivity or features like GPS, WiFi, Bluetooth, Zigbee and more. The open interface means you can develop your own expansion modules for your specific needs.

### INTELLIGENT DEVICE SERVICES

Our Intelligent Device Services enable you to remotely monitor and securely upgrade the software of your product, in order to reduce post-deployment field maintenance costs.

### PROFESSIONAL SERVICES

Accelerate your product design and ensure you capitalize on market opportunities!

**wavecom**   
*Smart wireless. Smart business.*



## Fastrack Supreme

# Plug and play with unlimited expandability

Evolve to the latest cellular technology and add functionality without sacrificing the form factor you have come to rely on. The Fastrack Supreme is the same size, has the same interfaces and is completely backward compatible with previous Fastrack products, and is packed with a host of new features.

Wavecom has developed an exciting new, open-standard Internal Expansion Socket (IES) interface for you to add additional IO connectivity or features like GPS, WiFi, Bluetooth, Zigbee and more. The open interface means you can develop your own expansion modules and customize the product for your specific requirements, or you can look to Wavecom for new expansion modules designed to address your most-pressing needs.

## Features

	Wireless CPU		IESM			
	FASTRACK Supreme 10	FASTRACK Supreme 20	IESM GPS+USB	IESM IO+USB	IESM IO+USB+GPS	IESM Ethernet
Core CPU	ARM9, 32 bit with cache	ARM9, 32 bit with cache				MAC ethernet
Open AT® Software Suite	FW6.63/OS4.20	FW6.63/OS4.20				
VariSpeed	26/104MHz	26/104MHz				
MIPS	87 max.	87 max.				
DOTA	Type I & II	Type I & II				
External Interruption	<1ms	<1ms				
RTC Interruption	<1ms	<1ms				
GPIO	2	2		3+2	2	
Analogue Audio	2	2				
ADC/DAC/SPI/I2C				1/1/1/1	1/1/1/1	
RS232	1	1		1		
USB			1	1	1	1
SIM/RUIM	3V/1.8V SIM	3V/1.8V SIM				
Voltage/VDC (nom)	5.5 to 32	5.5 to 32	4		4	4
Current/A (max)	0.48 @ 5.5V	0.48 @ 5.5V	0.12 @ 5.5V		0.12 @ 5.5V	
MMCx			•		•	
SMA	•	•				
RJ45						•
Size/mm	73x54.5x25.5	73x54.5x25.5	58x35.7x10.01	58x35.7x10.01	58x35.7x10.01	58x35.7x10.01
Weight/g	89	89	<10	<10	<10	<10
SIM holder	•	•				
Operating t° range	-30°C+75°C	-30°C+75°C	-30°C+65°C	-30°C+65°C	-30°C+65°C	-30°C+65°C
GSM	•	•				
GPRS class	10	10				
EDGE class		10				
850/900/1800/1900	•	•				
Max Sensitivity (dBm)	-109 @ 900	-109 @ 900				
Codecs	FR/EFR/HR	FR/EFR/HR				
RIL	•	•				
TCP/IP & Internet	Plug-In	Plug-In				
Ethernet						Companion
Bluetooth	Plug-In	Plug-In				
Security	Plug-In	Plug-In				
GPS	Plug-In	Plug-In	Companion		Companion	



## Open AT® Software Suite 2.0

# Industrial software for industrial design demands

The Open AT® Software Suite allows you to develop, compile, test, debug, download and natively execute your applications written in standard ANSI C directly on the Fastrack Supreme, or indeed any other Wavecom Wireless CPU®. It is royalty free and comprises operating system, compiler and integrated development environments. There are no hidden costs - maintenance and qualification are provided for free by Wavecom.



- Multitasked Pre-Emptive Event-Based Real-Time Operating System
- Integrated Development Environment built on Eclipse™
- Extensive Set of Plug-Ins (Internet Suite, C-GPS and more)
- GSM Release 99 compliant modem firmware
- Secure Intelligent Device Services (IDS) compatible

### REAL TIME OPERATING SYSTEM

#### Real-Time

Guaranteed response time to interruption (even during GSM/GPRS/EDGE activities, calls and transfer).

#### Wireless CPU® Resources Direct Access and IT Management

- Hardware and Software Timers
- DSP
- SPI
- ADC
- External Interrupt Pins
- GPIOs
- UARTS (coming in 2008)

#### Multitasking

#### Auto shut-down feature

Feature improving the overall consumption of the application by deactivating the RS232 interface.

#### Application dedicated Hardware Watchdog

- application dedicated for close monitoring
- tunable depending on the complexity of the processing (ex: Pulse count Vs RSA signature calculation...)

### CROSS-PLATFORM INTEGRATED DEVELOPMENT ENVIRONMENT

For eased application debug it can be performed on PC: for very fast and convenient application debugging through RemoteTask Environment.

#### On target for final Integration and time-critical behavior management:

- Live through Traces
- Post mortem through BackTraces

#### On field:

- for difficult error causing operating scenarios through IDS device monitoring services and BackTraces over the air retrieval.

### SEAMLESSLY PLUG-IN ADDITIONAL FEATURES

Plug-Ins are an optional range of software feature packages that are selected when your order your Wireless CPU®. The standard range provides access to Internet clients & protocols, controller-less companion wireless peripherals such as Bluetooth & GPS. Of course, the powerful flexibility of Open AT® Software Suite means that you can also develop your own Plug-Ins and own custom AT commands.



Lua

Easy Scripting



Internet

Clients & Protocols



C-GPS

Companion



C-Bluetooth™

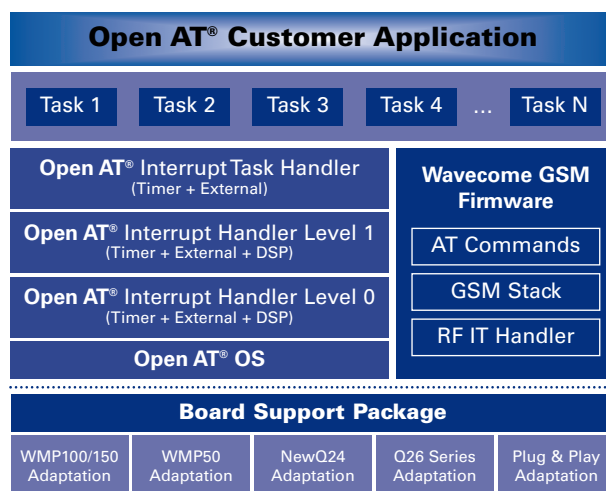
Companion



aqLink®

in-band modem

### WAVECOM BSP-BASED EMBEDDED SOFTWARE ARCHITECTURE



# Wavecom Services

The wireless products you are developing are most probably very complex, and they will stay in the field for many years. With this in mind, Wavecom has created a range of professional and operated services to make the development process easier and to help you protect your investment, enrich your products and services, and reduce the lifetime cost of your device network.

## Professional services: Less pain, more gain

Wavecom Professional Services help you be faster, sleeker and more adaptable to the ever changing needs of your market, all along the typical product lifecycle timeline:

### WAVECOM UNIVERSITY

- Open AT® Developer course
- Open AT® Expert course

### PRODUCT DESIGN

- Customer Design Review
- Customer Product Certification
- Open AT® Application Code Review

### PRODUCT BUILD

- IMEI implementation
- Tailored Delivery (Express & Fast)
- Tailored Product Configuration

### AFTER SALES

- Reconfiguration for Wireless CPU®
- Out Of Warranty repair for Wireless CPU®
- Repair Equipment Wireless CPU®

## Intelligent Device Services: Investment protection

Wavecom has created the world's first cellular operated service portfolio to benefit from easy to use end-to-end Intelligent Device Services that enable to remotely monitor and securely upgrade the application software of your product in addition to the entire Wavecom embedded Open AT® Software:

### WIRELESS DEVICE MANAGEMENT

- Simplify your device installation and protect your wireless investment while reducing your field service costs

### COMMUNICATION MANAGEMENT

- Analyze your traffic load and roaming usage, and adjust your tariff plans to your real usage

### APPLICATION MANAGEMENT

- Benefit from proactive maintenance services to diagnose issues and take action before a significant problem occurs

See the Fastrack Supreme online:  
[www.wavecom.com/fastracksupreme](http://www.wavecom.com/fastracksupreme)

Join the Wavecom Developer community:  
[www.wavecom.com/forum](http://www.wavecom.com/forum)



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