

## Plug and Play Wireless CPU®

### Delta between M1306B and FASTRACK Supreme

Reference: WA\_DEV\_Fastrk\_UGD\_004

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1.0a	9 Mar, 07	Section 2.1, update storage temperature range Section 2.2.2.1, mention about RF connector position shift	MLO
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	Name	Function	Date	Signature
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# 1 INTRODUCTION

This document gives the brief comparison between the new generation FASTRACK Supreme Plug & Play and the previous generation M1306B. It provides information for current M1306B customers aiding their migration to the new generation FASTRACK Supreme 10 or 20.

## 2 DELTA BETWEEN M1306B & FASTRACK SUPREME

### 2.1 Product Specification Delta

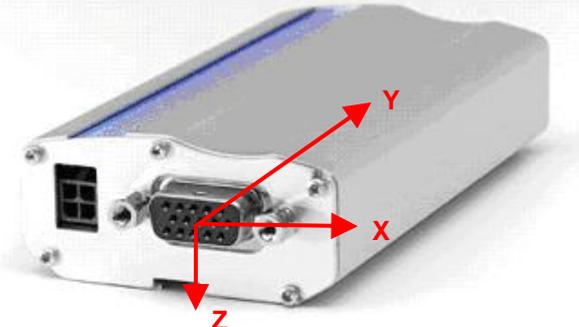
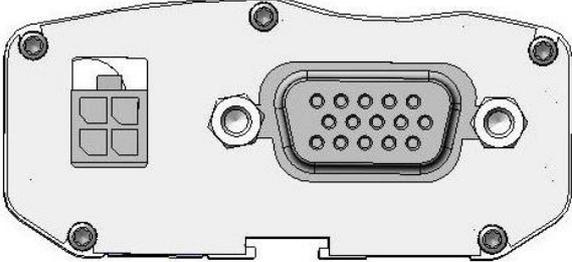
FEATURE	Plug & Play			
	M1306B	FASTRACK Supreme 10	FASTRACK Supreme 20	
GSM850	X	√	√	
GSM900	√	√	√	
DCS1800	√	√	√	
PCS1900	X	√	√	
EGPRS Class 10	X	X	√	
1.8V SIM	X	√	√	
3V SIM	√	√	√	
5V SIM	possible by adding external level shifter			
SIM card Lock	X	√	√	
GSM850/PCS1900 band available for use (Remark: no FCC/PTCRB on Plug & Play)	X	√	√	
RTC back up battery	X	√	√	
Serial Port AutoShutDown	X	√	√	
Temperature Range	Class A <sup>Note 1</sup>	-20°C ~ +55°C	-20°C ~ +55°C	-20°C ~ +55°C
	Class B <sup>Note 2</sup>	--	-30°C ~ +85°C	-30°C ~ +85°C
	Storage	-25°C ~ +70°C	-40°C ~ +85°C	-40°C ~ +85°C
IESM flexibility	X	√	√	

Note 1 : Compliant to full GSM specification

Note 2 : Operational, to establish a voice, SMS or DATA call (temperature range is subjected to be changed depending on the final performance after the qualification)

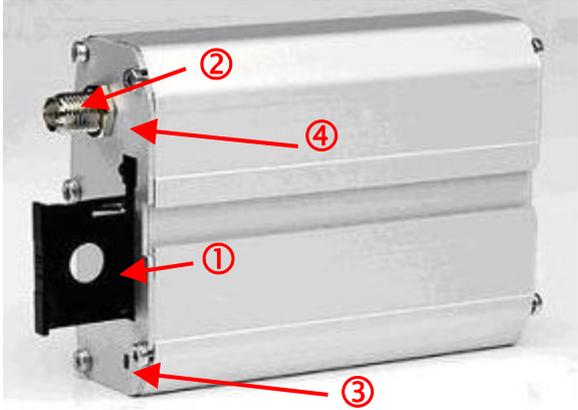
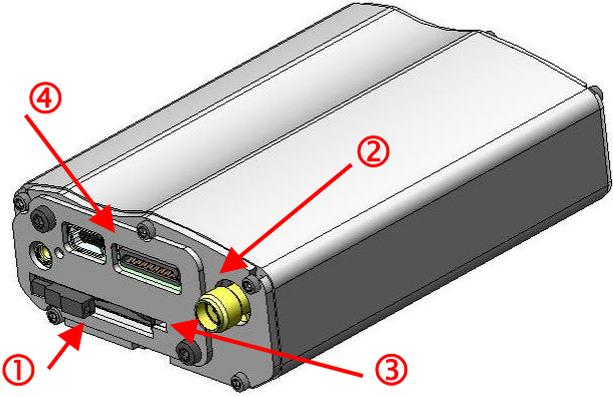
## 2.2 Mechanical Delta

### 2.2.1 Front View

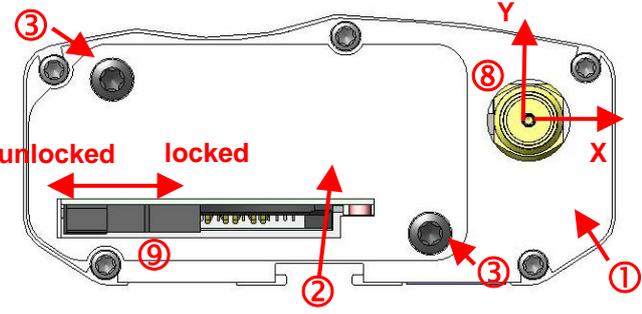
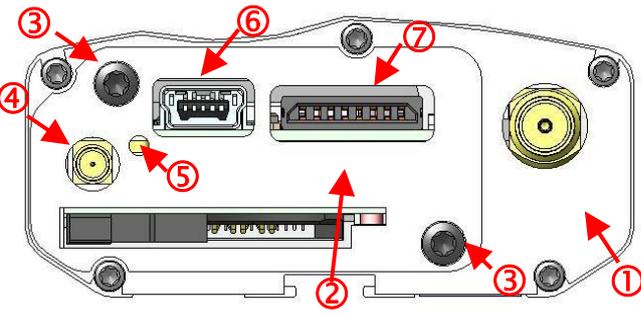
M1306B	FASTRACK Supreme
	
<p>1. SubD 15-Pin connector position shift as from M1306B to FASTRACK Supreme as indicated as above  <math>X = 1.2\text{mm}</math>, <math>Y = 0.4\text{mm}</math>, <math>Z = 0.72\text{mm}</math></p>	

**2.2.2 Back view**

**2.2.2.1 Comparison between M1306B and FASTRACK Supreme**

M1306B	FASTRACK Supreme
	
<p>1. SIM Connector type &amp; location change, FASTRACK Supreme now has no card holder, but has a carrier with a lock.</p>	
<p>2. GSM RF connector type change for FASTRACK Supreme. This does not have a torque issue as with the M1306B. The position has also been shifted. See next table for details.</p>	
<p>3. GSM LED indicator position change</p>	
<p>4. Additional back plate on top of the back cap of FASTRACK Supreme, for IESM Plug In (Refer to coming Section 2.2.2.2)</p>	

**2.2.2.2 Additional Possible IESM Plug In for FASTRACK Supreme.**

Stand Alone FASTRACK Supreme without any IESM Plug In	FASTRACK Supreme with possible IESM Plug In
	
<p>1. Common back cap</p>	
<p>2. Back plate depends on IESM Plug In type</p>	
<p>3. Screw for fixing back plate</p>	
<p>4. MMCX connector for GPS/Bluetooth, depending on IESM Plug In type</p>	
<p>5. LED indicator for GPS/Bluetooth, depending on IESM Plug In type</p>	
<p>6. USB connector for UART2</p>	
<p>7. 16 pin I/O connector</p>	

8. RF connector position move when comparing with M1306B: X = 4.0mm, Y = 0.15mm
9. SIM locked/unlocked position

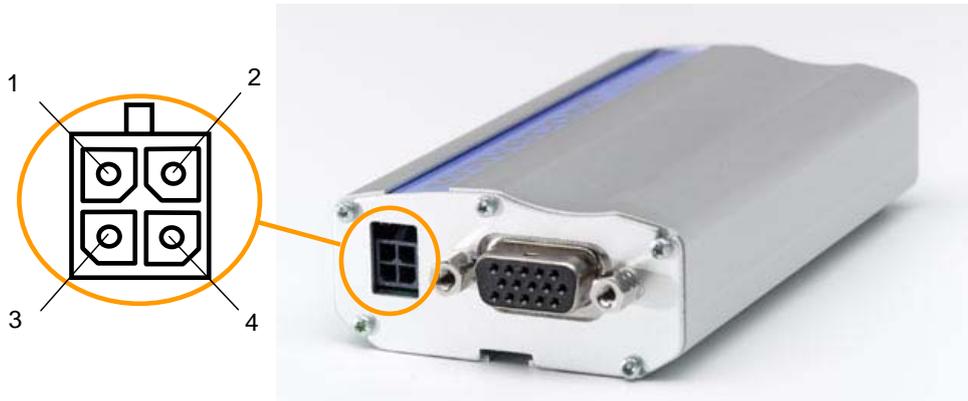
## 2.3 Electrical Delta

### 2.3.1 Voltage Level for BOOT and RESET Signals on SubD 15-pin Connector Output

SubD 15-pin Connector Pin no.	Signal	M1306B	FASTRACK Supreme
3	BOOT	2.8V	1.8V
14	RESET	2.8V	1.8V

### 2.3.2 GPIO on Micro-Fit Connector Output

There are 2 GPIOs available on the Micro-Fit Connector output for both M1306B and FASTRACK Supreme Plug & Play but the GPIO mapping and reset status is different.



Micro Fit Connector Pin no.	M1306B		FASTRACK Supreme	
	Signal	Reset Status	Signal	Reset Status
3	GPIO4	Low	GPIO21	Undefined
4	GPIO5	Low	GPIO25	Z

### 2.3.3 Additional RTC Battery Backup Feature

FASTRACK Supreme Plug & Play has an additional RTC battery which enables the unit to retain the time after power removal. For detail, please refer to Document [1].

### 2.3.4 SIM Voltage

SIM Voltage	M1306B	FASTRACK Supreme
1.8V	X	√
3V	√	√
5V	possible by adding external level shifter	

### 2.3.5 Serial Port Auto Shut Down

FASTRACK Supreme Plug & Play implement the Serial Port Auto Shut Down feature for improving the power consumption when there is no data communication between the Plug & Play and the DTE.

### 2.3.6 Additional IES Interface

FASTRACK Supreme Plug & Play provide an additional IES Interface for customer to expand the application features like GPS, I/O expander, Bluetooth..., etc. It is a 50 pin interface including GPIOs, SPI, UART, PCM, USB, Interrupt and various voltage supplies. For detail, please refer to document [1] and [2].

## 2.4 Software Supported Feature Delta

Feature	Plug & Play		
	M1306B	Supreme 10	Supreme 20
Open AT Plug-In compatibility	X	√	√

## 3 REFERENCE DOCUMENT

- [1] "Plug and Play Wireless CPU® -- FASTRACK Supreme User Guide", WA\_DEV\_Fastrk\_UGD\_001
- [2] "IESM Product Technical Specifications", WA\_DEV\_Fastrk\_PTS\_001
- [3] "IESM-GPS+USB User Guide", WA\_DEV\_Fastrk\_UGD\_002
- [4] "IESM-GPS+USB Installation Guide", WA\_DEV\_Fastrk\_UGD\_003
- [5] "IESM-IO+USB User Guide", WA\_DEV\_Fastrk\_UGD\_006
- [6] "IESM-IO+USB Installation Guide", WA\_DEV\_Fastrk\_UGD\_005