## **Technical Data Sheet**

## PN: D90558 / SMB-FPC - SMBUS FLATPAQ Charger





### **SMBUS Desktop FLATPAQ Charger for Smart Batteries**

#### Features:

- Single bay charger
- For the standard battery form factors 2130, 2140 or smart batteries with a similar footprint
- Optimized charging process for RRC batteries:
  - Longer cycle life
- Faster charging Simple operation Plug and Play
- External power supply for worldwide use
- Country specific AC input cables available

### **Applications:**

Output

Standard charging station for mobile devices used in medical, industrial and consumer markets

### **Specification SMB-FBC**

Input		
Voltage	19 - 26VDC	
Current	2300mA max.	
Power	40W	

Environmental	
Cooling	convection cooled
Temperature	Operating: 0°C to 40°C
	Non-operating -10°C to 70°C
Pressure & Altitude	Operating: 1060hPa to 795hPa -382m to 2000m
	Non-operating: 1060hPa to 572hPa -382m to 4570m
Humidity	20% to 95% r.H., non-condensing

Output	
Voltage range	0 - 17.4VDC
Current range	0 - 4.0A
Voltage tolerance(1	<sup>)</sup> ±1% max.
Current tolerance(1	<sup>)</sup> ±10% max. @1A, ±3% max. @4A
Protection	Short circuit
	Over temperature shutdown
	Input-/output over current

General	
Efficiency <sup>(2)</sup>	~95% at 100% load
Indicator	Multi-color LED (green, red, orange)
Battery types	Standard battery form factors 2130, 2140 or smart batteries with a similar footprint
Green procurement	RoHS 2011/65/EU WEEE 2012/19/EU Chinese RoHS

LED Indications	
One time Red/Orange/Green	Selftest: Charger is ready for use.
Red/Green blinking	Battery recognition and initialization.
Orange light	The inserted battery is of the correct type and is currently being charged.
Green light	The battery is charged and can be removed for use.
Red blinking	The battery is too hot or too cold to be charged without damage. If the battery is too cold it will be charged as soon as it has warmed up sufficiently. If the battery is too hot it should be removed to cool down.
Red light	The battery is damaged or it is a conventional battery which cannot be recharged.

#### Notes:

- Total regulation tolerance includes initial set accuracy, line and load regulation
- Power losses of input and output cables are not considered here.

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**Charger Mechanical Details** 

Housing dimensions (LxWxH) 88.5 x 38.5 x 19.9mm Weight 36g (excluding power supply)

Safety & EMC	In combination with specified external AC/DC power supply	
Regulatory approvals	Europe	CE
Electromagnetic	Europe	EN55011, EN55032, level B
Emissions	USA	FCC15 class B
Electromagnetic	ESD immunity	EN/IEC61000-4-2
Immunity	Electromagnetic field immunity	EN/IEC61000-4-3
	EFT / Burst	EN/IEC61000-4-4
	Surge	EN/IEC61000-4-5
	Conducted Immunity	EN/IEC61000-4-6
	Magnetic Fields	EN/IEC61000-4-8
	Voltage dips, short instrumentations & voltage variations	EN/IEC61000-4-11
	Immunity characteristics	EN55024

### Specification external AC/DC power supply

Input	
Voltage range	100 - 240VAC
Current	1.7A max.
Stand by power	No load < 0.5W @ 230 VAC

Output	
Voltage range	19VDC
Power	65W max.
Current range	3.4A
Protection	Over voltage, over current Short circuit

**Environmental** Temperature Operating: 0°C to 40°C Non-operating -10°C to 70°C

General	
Efficiency	California's Energy Efficiency Level VI
Ripple & Noise	240mV (p-p)

**Power Supply Mechanical Details** 

Standard output connector DC barrel jack Housing dimensions (LxWxH) 95 x 51 x 25.4mm

Weight 270g

Safety & EMC & A	pprovals		
Approvals	Europe	CE	
	International	СВ	
	USA/Canada	cULus	
	Australia	RCM	
	Russia (Customs Union)	EAC	
	Korea	KC	
	China	CCC	
	Japan	PSE	
	India	BIS	