



Nishati  
Power  
Technologies™

# Outpost™ Mini Power Manager

**Portable, Rugged High-efficiency Smart Charging and Power Charge BB-XX90 Batteries & Power Radios, Sensors, End-User Devices**



**Compact and Lightweight** 2.73" L x 2.54" W x 1.63" H | 0.6 lbs. | Battery SOC windows visible

**Simple** No buttons - just connect & charge! LEDs provide system state, solar input, & fault indications

**Efficient** ≥98% Solar charging and ≥96% auxiliary power efficiency

**Effective** High-speed maximum power point tracking delivers maximum solar charging power

Minimizes charge time by charging two battery cell strings simultaneously

Charge while delivering up to 6A to auxiliary loads

**Flexible** Polarized SAE 2-pin input accepts power from solar and other DC sources

Parallel multiple chargers from one power source and parallel auxiliary power output

Data over RS485 connection for external battery monitoring and charger switching

**Robust** Reverse Polarity, Short Circuit, Over- / Under-Temperature Protections

Wakes up/charges depleted batteries

Charges even if battery communications fail; monitors temp. to protect battery in cold weather

**Durable** Designed and built to military standards for use in harsh conditions and use cases

**Weatherproof** Protected against dust and water immersion (up to 1 m)



## Nishati Outpost™ Mini Power Manager Specifications

### General Description

Part Number	914001		
Power Input Connection	(1) SAE 2-pin 12" pigtail		
Auxiliary Power and Data Connection	(1) M12, 4-pin, 12" pigtail		
Limited Warranty	2 years		

Power Characteristics	Min.	Typ.	Max.	Conditions
DC Input Voltage ( $V_{in}$ )	10V	20V	50V	
Battery Voltage ( $V_{batt}$ )	10V	-	20V	
Auxiliary Power Voltage ( $V_{aux}$ ) <sup>1</sup>	11V	-	16.5V	BB-2590 battery required
Total Batt. Charging Current ( $I_{batt}$ )	0A	-	6A	
Auxiliary Power Current ( $I_{aux}$ ) <sup>1</sup>	-	-	6A	Continuous
			10A	Absolute maximum
Input Power ( $P_i$ )	0	-	120W	
Battery Charging Power ( $P_{batt}$ )	0	80W	100W	
Auxiliary Power ( $P_{aux}$ ) <sup>1</sup>	-	-	100W	Continuous, $V_{aux} = 16.5V$
Efficiency: DC In to Battery	-	>96%	-	
Efficiency: Battery to Aux Power Out	-	>98%	-	
Ambient Operating Temp. ( $T_A$ )	-40°C	-	60°C	Discharging
	-20°C	-	50°C	Charging [software-limited to 2.5A below 0°C <sup>2</sup> ]
Storage Temp. ( $T_{STG}$ )	-50°C	-	85°C	
Internal Temp. Limiting ( $T_{LIM}$ )	-	85°C	-	Auxiliary port turns off and battery charge power reduces to maintain temperature limit <sup>3</sup>

### Data

Battery Management System Data	RS485 2-wire   Single-character query and response (115,200 bps)
RS485 Switching	On, Off / Ship Mode, Fault / Hibernate Reset

### Charger Dimensions & Weight

L x W x D	2.73" x 2.54" x 1.63"
Weight	0.6 lbs.
Environmental	IP67 (Dust proof; waterproof to 1m immersion)

### Notes:

- 1) BB-2590 only
- 2) Charging BB-2590 below 0°C may negatively impact battery capacity and lifetime
- 3) External case temperature can become hot in certain high load conditions, use caution when handling