

Interface Name	Interface Type	Specifics
solar_panel_envin	Environmental Input	Power input dependant on sunlight; Pmax = 170 W Vmax = 35.2 V Imax = 4.83 A Voc = 43.8 V Isc = 5.14 A
buck_relay_shutoff	Digital Signal	Vmax (HIGH) = 5V Vmin (LOW) = 0V Inominal = 40 mA
buck_oscillation_asig	Analog Signal	Signal Type: PWM Vpeak = 5 V Vmin = 0 V Inominal = 40 mA Frequency = 8K Hz
lead-acid_temp_asig	Analog Signal	Measurement error: $\pm 5 F^{\circ}$ Vpeak = 5 V Vmin = 0 V
battery_temp_asig	Analog Signal	Measurement error: $\pm 5 F^{\circ}$ Vpeak = 5 V Vmin = 0 V
lead-acid_charge_dcpwr	Digital Signal	Vmin = 12 V Vpeak = 15 V Inominal = 5.625 A Ipeak = 7.5 A
sense_data	Data	Voltage: Vmin = 0V Vpeak = 0.5V Conversion Rate: *100 Current: Vmin = 0V Vpeak = 0.6V Conversion Rate: *10 Temperature: Vmin = 0V Vpeak = 5V Resolution: 10-bits
controller_dcpwr	DC Power	Vmin = 7 V Vmax = 12 V Inominal = 15 mA Ipeak = 1 A
battery_envout	Environmental Output	Li-ion mode: Vmin = 2.5V Vmax = 4.2V Imin = 0A Imax = 2.5A NiMH mode: Vmin = 1V Vmax = 1.8V Inom = .060A Imax = .350A NiCad mode: Vmin = 1V Vmax = 1.8V Inom = .060A Imax = .350A

Interface Name	Interface Type	Specifics
battery_select_switch_envout	User Input	Position 1: Li-ion Position 2: NiMH Position 3: NiCad
distributor_relay_shutoff	Digital Signal	Vmax (HIGH) = 5V Vmin (LOW) = 0V Inominal = 40 mA
USB_dcpwr	DC Power	Vmin = 4.75 V Vmax = 5.25V Inominal = 200 mA Ipeak = 500 mA
distributor_dcpwr	DC Power	Vmin = 2 V Vmax = 14 V Inom = dependent on load type Imax = 4 A
visual_shutoff_notification	Digital Signal	Triggers push notification to users phone, soft coded into app.
panel_character_temp_rf	Digital Signal	Vmin = 0 V Vmax = 7 V Ioperating = 06 mA
USB_device_envout	Environmental Output	Vmin = 0 V Vmax = 5 V Ioperating = 2A
phone_app_envout	Environmental Output	Bluetooth: Op. Freq = 2.6GHz Vmin = 2.5 V Vmax = 3.5 V V4.0 BLE