

# Power Can SmartStar System Analysis

Rev: X.D

| CPU Slot        |                                               | Sample Rate |
|-----------------|-----------------------------------------------|-------------|
| Slot 0          |                                               |             |
| ADC 0-10V Ch 0  | Seawater Battery Voltage 1 - chemistry type A | 1/min       |
| ADC 0-10V Ch 1  | Seawater Battery Voltage 2 - chemistry type B | 1/min       |
| ADC 0-10V Ch 2  | Seawater Battery Voltage 3 - chemistry type C | 1/min       |
| ADC 0-10V Ch 3  | Seawater Battery Voltage 4 - chemistry type D | 1/min       |
| ADC 0-10V Ch 4  |                                               |             |
| ADC 0-10V Ch 5  |                                               |             |
| ADC 0-10V Ch 6  |                                               |             |
| ADC 0-10V Ch 7  |                                               |             |
| ADC 0-10V Ch 8  |                                               |             |
| ADC 0-10V Ch 9  |                                               |             |
| ADC 0-10V Ch 10 |                                               |             |
| Slot 1          |                                               |             |
| ADC 0-10V Ch 0  | Water detection 1                             | 1Hz         |
| ADC 0-10V Ch 1  | Water detection 2                             | 1Hz         |
| ADC 0-10V Ch 2  | Water detection 3                             | 1Hz         |
| ADC 0-10V Ch 3  | Water detection 4                             | 1Hz         |
| ADC 0-10V Ch 4  | Water detection 5                             | 1Hz         |
| ADC 0-10V Ch 5  | Water detection 6                             | 1Hz         |
| ADC 0-10V Ch 6  | Water detection 7                             | 1Hz         |
| ADC 0-10V Ch 7  | Water detection 8                             | 1Hz         |
| ADC 0-10V Ch 8  | Pwr Hsg Temp                                  | 1/min       |
| ADC 0-10V Ch 9  | Pwr Hsg Humidity                              | 1/min       |
| ADC 0-10V Ch 10 |                                               |             |
| Slot 2          |                                               |             |
| ADC 0-10V Ch 0  | Array Current North                           | 1Hz         |
| ADC 0-10V Ch 1  | Array Current East                            | 1Hz         |
| ADC 0-10V Ch 2  | Array Current South                           | 1Hz         |
| ADC 0-10V Ch 3  | Array Current West                            | 1Hz         |
| ADC 0-10V Ch 4  | Controller Power Feed Current                 | 10Hz        |
| ADC 0-10V Ch 5  | Riser Power Feed Cable Current                | 10Hz        |
| ADC 0-10V Ch 6  |                                               |             |
| ADC 0-10V Ch 7  |                                               |             |
| ADC 0-10V Ch 8  |                                               |             |
| ADC 0-10V Ch 9  |                                               |             |
| ADC 0-10V Ch 10 |                                               |             |
| Slot 3          |                                               |             |
| ADC 0-10V Ch 0  | Battery Current 1                             | 1Hz         |
| ADC 0-10V Ch 1  | Battery Current 2                             | 1Hz         |
| ADC 0-10V Ch 2  | Battery Current 3                             | 1Hz         |
| ADC 0-10V Ch 3  | Battery Current 4                             | 1Hz         |
| ADC 0-10V Ch 4  | Battery Current 5                             | 1Hz         |
| ADC 0-10V Ch 5  | Battery Current 6                             | 1Hz         |
| ADC 0-10V Ch 6  | Battery Current 7                             | 1Hz         |
| ADC 0-10V Ch 7  | Battery Current 8                             | 1Hz         |
| ADC 0-10V Ch 8  |                                               |             |
| ADC 0-10V Ch 9  |                                               |             |

|                          |                                                    |      |
|--------------------------|----------------------------------------------------|------|
| ADC 0-10V Ch 10          |                                                    |      |
| Slot 4                   |                                                    |      |
| ADC 0-10V Ch 0           | Array Voltage North                                | 1Hz  |
| ADC 0-10V Ch 1           | Array Voltage East                                 | 1Hz  |
| ADC 0-10V Ch 2           | Array Voltage South                                | 1Hz  |
| ADC 0-10V Ch 3           | Array Voltage West                                 | 1Hz  |
| ADC 0-10V Ch 4           | Battery Voltage                                    | 1Hz  |
| ADC 0-10V Ch 5           | Solar Load resistor (lost potential energy)        | 1Hz  |
| ADC 0-10V Ch 6           | Wind Turbine Load resistor (lost potential energy) | 1Hz  |
| ADC 0-10V Ch 7           | Riser Power Feed Cable Voltage                     | 10Hz |
| ADC 0-10V Ch 8           | Power Can Ground fault                             | 1Hz  |
| ADC 0-10V Ch 9           |                                                    |      |
| ADC 0-10V Ch 10          |                                                    |      |
| Slot 5                   |                                                    |      |
| Slot 6                   |                                                    |      |
| DIO Sinking Output Ch 0  | Battery Current Sensor Enable                      | 10Hz |
| DIO Sinking Output Ch 1  | Power Feed Current Sensor Enable                   | 10Hz |
| DIO Sinking Output Ch 2  |                                                    |      |
| DIO Sinking Output Ch 3  |                                                    |      |
| DIO Sinking Output Ch 4  |                                                    |      |
| DIO Sinking Output Ch 5  |                                                    |      |
| DIO Sinking Output Ch 6  |                                                    |      |
| DIO Sinking Output Ch 7  |                                                    |      |
| DIO Sinking Output Ch 8  |                                                    |      |
| DIO Sinking Output Ch 9  |                                                    |      |
| DIO Sinking Output Ch 10 |                                                    |      |
| DIO Sinking Output Ch 11 |                                                    |      |
| DIO Sinking Output Ch 12 |                                                    |      |
| DIO Sinking Output Ch 13 |                                                    |      |
| DIO Sinking Output Ch 14 |                                                    |      |
| DIO Sinking Output Ch 15 |                                                    |      |
| DIO Input Ch 0           |                                                    |      |
| DIO Input Ch 1           |                                                    |      |
| DIO Input Ch 2           |                                                    |      |
| DIO Input Ch 3           |                                                    |      |
| DIO Input Ch 4           |                                                    |      |
| DIO Input Ch 5           |                                                    |      |
| DIO Input Ch 6           |                                                    |      |
| DIO Input Ch 7           |                                                    |      |