EMAX ®

"CellMeter" for 2S-4S Lithium Polymer Packs for Aircraft-borne

CE   FCC   RoHS

Product Function

When the model amateurs use the present lithium battery group, the single battery or the double batteries always be damaged and bloated. Not only the amateurs will get lost, but also causes fire even larger damage. Through our communication with the amateurs, we found that it mainly due to the over discharge and the bad quality of the batteries. Then how can the model amateurs control the battery group rightly in the status of discharging? Generally they judge the working status of the battery group by their experience and the temperature of the batteries, but they can not see if the batteries are working in the good status and each battery can be discharged in the rational using scope. So this causes the inconvenience of keeping and maintaining of the battery group, and affects the performance and life-span of the battery group.

This product is small and exquisite, the measurement is: 20mm*60mm, it only weighs 7 gram when using the 0.8mm PCBA. It adopts the 8 MCU from American ATMEL Company. The sampling voltage is switched by 10bit A/D and can reach to 0.02V exactly. The indicator light of the working status is composed of 8 hi-luminance LEDs, which can display the voltage ranging from 4.1V to 3.2V, and the voltage can reach to 0.1V.

The product can direct and measure the lithium battery group from 2S to 4S and detect the battery quantity automatically. When you use the 3S battery group, our product will be detected automatically and lighten 3 rows indicator light to show the voltage of each battery separately. When you use the 2S or 4S battery group, there will be 2 rows or 4 rows indicator light be lighted and it can also show the voltage of each battery separately. Meantime, our product can give an alarm in the low voltage (single battery give an alarm), this can protect your lithium batery group effectively and prevent the loss of over discharge. The procedures are as follow:

	3.4V	3.5V	3.6V	3.7V	3.8V	3.9V	4.0V	4.1V
4S	[red]	[red]	[yellow]	[yellow]	[green]	[green]	[green]	[green]
3S	[red]	[red]	[yellow]	[yellow]	[green]	[green]	[green]	[green]
2S	[red]	[red]	[yellow]	[yellow]	[green]	[green]	[green]	[green]
1S	[red]	[red]	[yellow]	[yellow]	[green]	[green]	[green]	[green]
	1LED	2LED	3LED	4LED	5LED	6LED	7LED	8LED

As showing in the picture: this product is composed of 4 rows hi-luminance LEDs, each row shows the voltage of one lithium battery. So the user can find out the voltage of each battery in the battery group exactly. Now take the single battery for example:

1. When the voltage ≤3.6V, LED3(yellow) begins to shine (in low speed).
2. When the voltage ≤3.5V, LED2(red) begins to shine (in middle speed)
3. When the voltage ≤3.4V, LED1(red) begins to shine (in high speed).
4. When the voltage ≤3.3V, LED1 to LED8 begin to shine.
5. When the voltage ≤3.1V, LED1 to LED8 are crushed out and stop working.

Note: there is another LED (blue) as working indicator light (shining 1 time/second, won't show the electricity performance).

This product adopts 8 MCU from ATMEL Company, so we extend 3 faucets through the powerful function in the developing period, so you can insert 1 to 3 hi-luminance LEDs. The shining frequency has already been set. The user can install it onto the airplane model so simulate the switching LOGO can be set according to different clients' requirements.