

DOB solutions

DOB solution is very popular in India

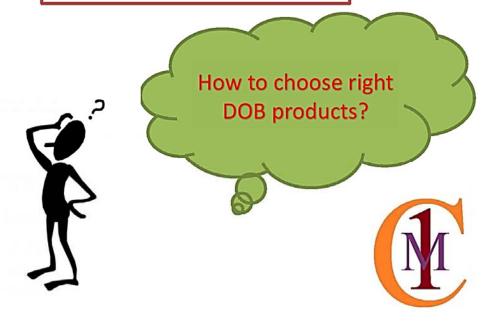
Why

Government encourage to make in india, thus many favourable terms;

- Cheaper
- Easy to assemble to utilize and cheaper labour
- Longer life span if choose proper solution and quanlity components.they worry about if voltage unstable will lead to light off or short circuit, etc.

Is DOB solution reliable?

- The grid is very unstable, not always 230v, but fluctuate from 130v to 300v;
- Always surge and spike
- Can DOB sustain for 2 years?





DOB solutions

we have the answers!

We have Three kinds of DOB solution are: 1) one channel IC; 2)one channel constant power IC; 3) four channel IC



one channel solution is

suitable for very stable of voltage countries ,such as China, the European countries, etc. 2

one channel constant power solution well controls over high voltage, but not lower voltage



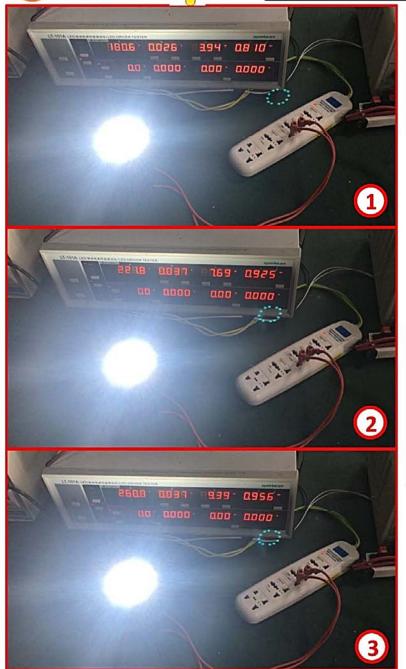
Four channel solution

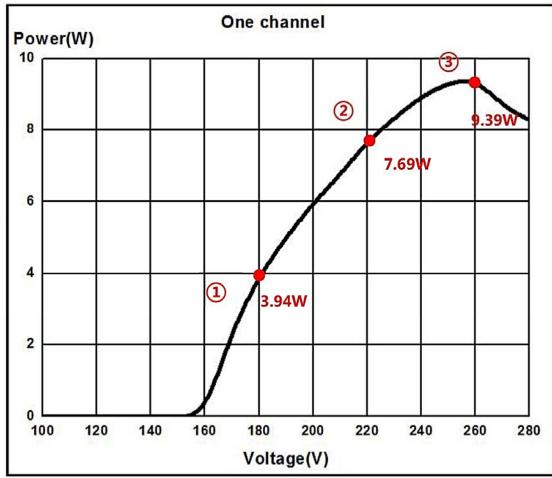
controls both high and low voltage. Make linear solution as close to SMPS solution as possible





One channel 7W DOB Bulb Module





Advantage: Cheapest

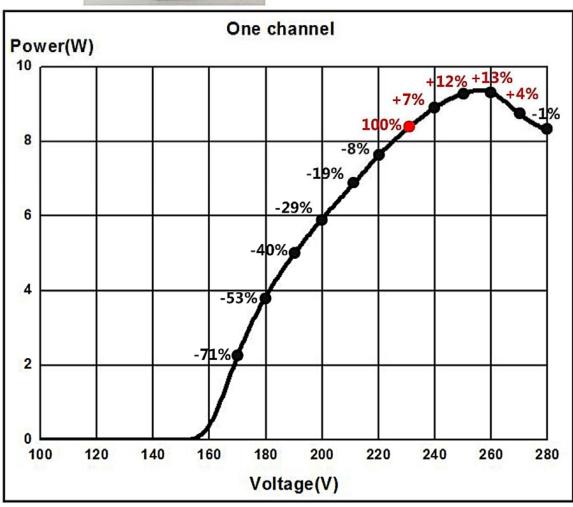
Disadvantage: Fluctuate with the input voltage

change





One channel 7W DOB Bulb Module

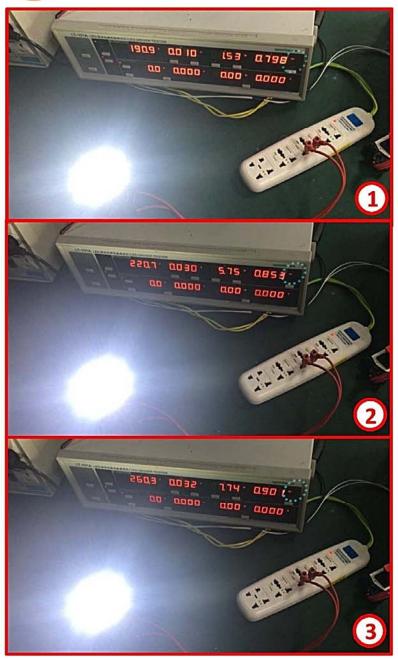


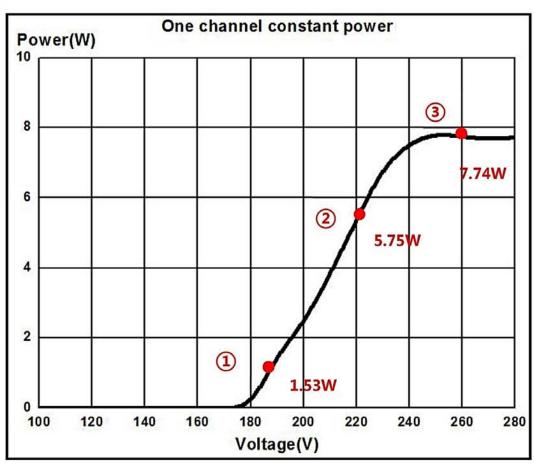
Voltage(V)	Power(W)	Percentage(%)
100	0	-100
110	0	-100
120	0	-100
130	0	-100
140	0	-100
150	0	-100
160	0	-100
170	2.41	-71
180	3.93	-53
190	5.01	-40
200	5.96	-29
210	6.75	-19
220	7.69	-8
230	8.34	100
240	8.95	+7
250	9.33	+12
260	9.46	+13
270	8.68	+4
280	8.29	-1



2

One channel constant power 7W DOB Bulb Module





Advantage: Relatively Cheaper; well controls

over high voltage,

Disadvantage: No control over lower input

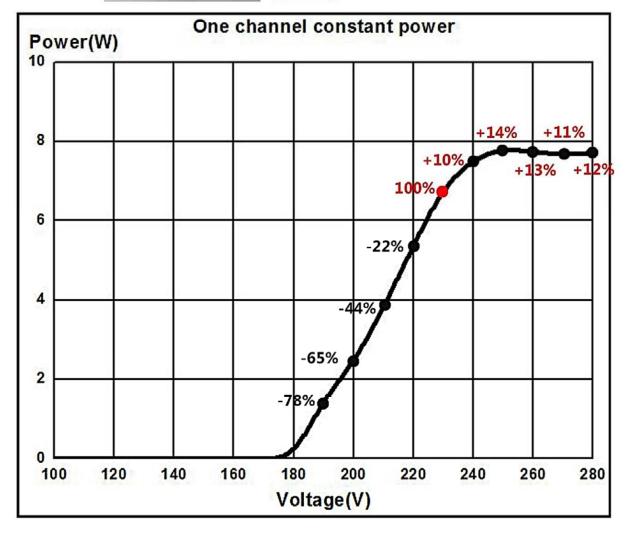
voltage





One channel constant power 7W DOB Bulb Module

2

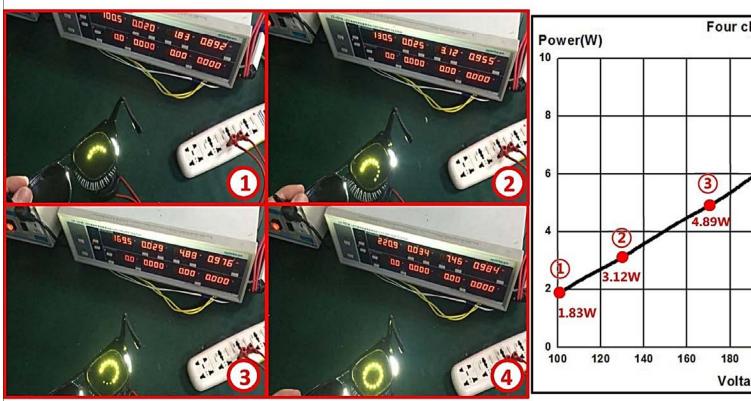


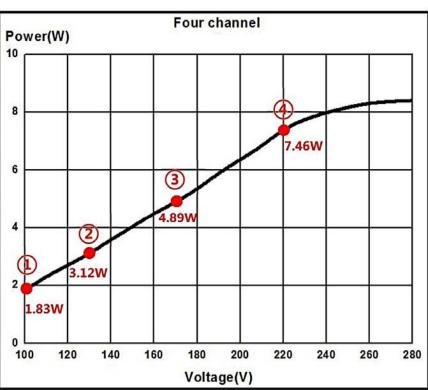
V-1400	D	D(0/)
Voltage(V)	Power(W)	Percentage(%)
100	0	-100
110	0	-100
120	0	-100
130	0	-100
140	0	-100
150	0	-100
160	0	-100
170	0	-100
180	0	-100
190	1.53	-78
200	2.39	-65
210	3.82	-44
220	5.38	-22
230	6.88	100
240	7.57	+10
250	7.84	+14
260	7.74	+13
270	7.67	+11
280	7.72	+12





Four channel 7W DOB Bulb Module







Advantage: well controls both high and low voltage; Start function from 100v

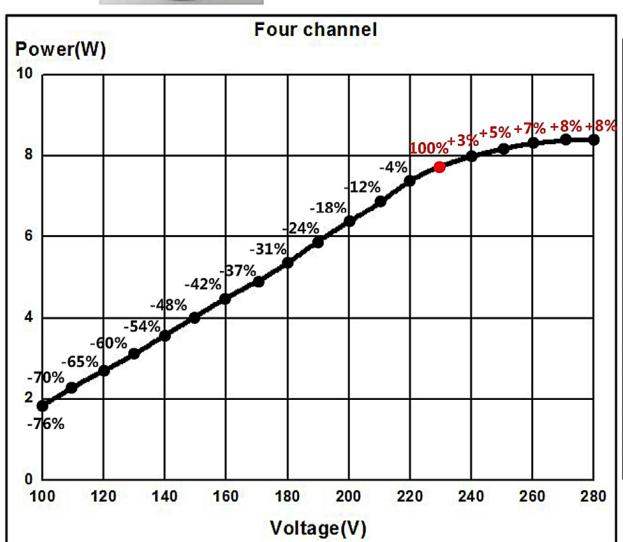
Disadvantage: Relatively expensive







Four channel 7W DOB Bulb Module



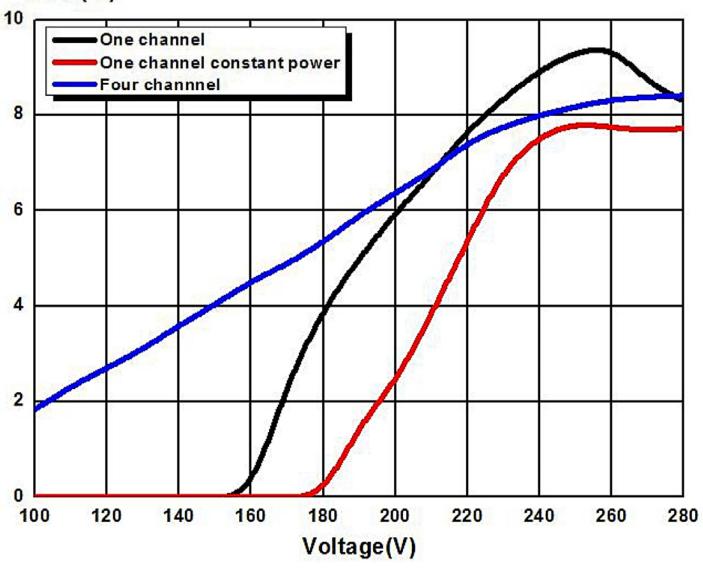
Voltage(V)	Power(W)	Percentage(%)
100	1.83	-76
110	2.32	-70
120	2.7	-65
130	3.1	-60
140	3.59	-54
150	4.03	-48
160	4.51	-42
170	4.89	-37
180	5.34	-31
190	5.91	-24
200	6.37	-18
210	6.83	-12
220	7.43	-4
230	7.76	100
240	8	+3
250	8.18	+5
260	8.32	+7
270	8.38	+8
280	8.41	+8





Comparison Chart

Power(W)







Conclusion

we only make quality dob Products

The reliable DOB solution in india need to:

- 1. Use the right IC: IC is the brain of DOB. For Inida market, we suggest customers to choose 4 channel. followed by 1 channel constant power IC. we don't recommend to use 1 channel IC as it fluctuates with the input power. But unfortunately, many suppliers offer it as it is cheap or lack of the knowledge from the suppliers.
- 2. Use quality material and components including LEDs, resistors, quality PCB etc.

The standard of PCB for bulbs as followings, it might need higher standard for higher power products.

- thickness of pcb > 1.0mm;
- Copper Thickness standard: 10Z/35 µ M;
- Thermal conductivity > 1.0. IUnfortunately, many suppliers use much lower quality PCB and leds to lower the price.

3. Have all necessary protections:

- over-temperature protection,
- Surge protection 600v-1.5kv-2.5kv-4kv etc.,
- Better to use over current fuse





