

**WRB\_S-1W/2W Series****1W/2W, Wide Input, Isolated&Regulated Single/Dual Output DC-DC Converter****Characteristics:**

- CE Certificate
- Industrial / Military Products
- Rated Power: 1W~ 2W
- Wide Input: 5V, 12V, 24V, 48V
- Single/Dual Regulated Output
- Isolated Voltage:  $\geq 1000\text{VDC}$
- Short Circuit / Over Current Protection, Auto Recovery
- International Standard Pins, different Packages
- SIP Package. Dimensions: 22×9.5×12mm

**Product List**

Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)		Efficiency (%) (Typ.)	Part Number
		1W	2W		
4.5~9 VDC	3.3	300	600	72	WRB0503S-1W/2W
	5	200	400	72	WRB0505S-1W/2W
	9	110	220	73	WRB0509S-1W/2W
	12	83	166	73	WRB0512S-1W/2W
	15	66	132	75	WRB0515S-1W/2W
	24	41	82	75	WRB0524S-1W/2W
9~18 VDC	3.3	300	600	72	WRB1203S-1W/2W
	5	200	400	72	WRB1205S-1W/2W
	9	110	220	73	WRB1209S-1W/2W
	12	83	166	73	WRB1212S-1W/2W
	15	66	132	77	WRB1215S-1W/2W
	24	41	82	77	WRB1224S-1W/2W
18~36VDC	3.3	300	600	72	WRB2403S-1W/2W
	5	200	400	73	WRB2405S-1W/2W
	9	110	220	74	WRB2409S-1W/2W
	12	83	166	77	WRB2412S-1W/2W
	15	66	132	77	WRB2415S-1W/2W
	24	41	82	79	WRB2424S-1W/2W
36~72 VDC	3.3	300	600	72	WRB4803S-1W/2W
	5	200	400	73	WRB4805S-1W/2W
	9	110	220	74	WRB4809S-1W/2W
	12	83	166	77	WRB4812S-1W/2W
	15	66	132	77	WRB4815S-1W/2W
	24	41	82	79	WRB4824S-1W/2W

**Note:** Input voltage could be 9~36VDC or 18~72VDC ultra wide input. Output voltage could also be changed into other volts.

<b>Specifications</b>			
<b>Note:</b> all specifications measured at Ta=25°C, nominal input voltage and nominal load.			
<b>Input</b>			
Input Voltage	2:1	9~18VDC , 18~36VDC, 36~72VDC	
	4:1	9~36VDC , 18~72VDC	
Startup Time	≤Rated Load, Nominal Input Voltage		≤10mS
Remote Control			Yes
<b>Output</b>			
Output Power	Ta ≤ 70°C (Industrial Grade)	WRA_S-2W Series	2W(Max.)
		WRA_S-1W Series	1W(Max.)
Voltage Accuracy	rated load, nominal input voltage: 25°C	Vo	±1.0%(nominal)
Line Voltage Regulation	nominal load, Full input voltage range	Vo	±0.2%(nominal)
Load Regulation	nominal input, 10% ~ 100% nominal load	Vo	±0.5%(nominal)
Over Current Protection	Input voltage Range, T <sub>c</sub> < T <sub>c</sub> max		≥120% Rated Load
OC Protection Mode		110-170%	Short, AutoRecovery
Ripple & Noise	Rated Load		< 1%Vo
Load Power Consumption			< 100 mW
Dynamic Response	25% Rated Load	ΔVo1/Δt	200uS
<b>General</b>			
Switching Frequency (Typ.)	Typ.	100~400KHz	
Insulation Resistance	Test at 500VDC	500MΩ	
Insulation Voltage	Input/Output, Input&Output/Enclosure	≥1000VDC	
Operating Temp.	≤Rated Load (Industrial Grade)	-40°C ~ +70°C	
Storage Temp.	Humidity≤90%	-40°C ~ +105°C	
Temperature Index		<0.02%/°C	
Anti Vibration		10~55Hz 5g	
MTBF	Ta=25°C	1 million hours(Aerospace Grade)	
Cooling Method		Natural Cooling	
Enclosure Material		Flame Retardant & withstand voltage plastic	