

WRA_S-1W/2W Series**1W/2W, Wide Input, Isolated&Regulated Dual Output DC-DC Converter****Characteristics:**

- CE Certificate
- Industrial / Military Products
- Rated Power: 1W~ 2W
- Wide Input: 5V, 12V, 24V, 48V
- Dual Regulated Output: $\pm 5V$ / $\pm 12V$ / $\pm 15V$
- Isolated Voltage: $\geq 1000VDC$
- 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		
4.5~9v	± 5	± 100	± 200	72	WRA0505S-1W/2W
	± 12	± 41	± 83	73	WRA0512S-1W/2W
	± 15	± 33	± 66	75	WRA0515S-1W/2W
9~18	± 5	± 100	± 200	72	WRA1205S-1W/2W
	± 12	± 41	± 83	73	WRA1212S-1W/2W
	± 15	± 33	± 66	77	WRA1215S-1W/2W
18~36vdc	± 5	± 100	± 200	73	WRA2405S-1W/2W
	± 12	± 41	± 83	77	WRA2412S-1W/2W
	± 15	± 33	± 66	77	WRA2415S-1W/2W
36~72vdc	± 5	± 100	± 200	73	WRA4805S-1W/2W
	± 12	± 41	± 83	77	WRA4812S-1W/2W
	± 15	± 33	± 66	77	WRA4815S-1W/2W

Note: Input voltage could be 9~36VDC or 18~72VDC ultra wide input.

Output voltage could also be changed into other volts.

Specifications

Note: all specifications measured at $T_a=25^\circ C$, nominal input voltage and nominal load.

Input

Input Voltage	2:1	9~18VDC , 18~36VDC, 36~72VDC
	4:1	9~36VDC , 18~72VDC
Startup Time	\leq Rated Load, Nominal Input Voltage	$\leq 10mS$
Remote Control		Yes

Output			
Output Power	Ta ≤ 70°C (Industrial Grade)	WRA_S-2W Series	2W(Max.)
	Ta ≤ 80°C (Military Grade)	WRA_S-1W Series	1W(Max.)
Voltage Accuracy	rated load, nominal input voltage: 25°C	Vo1	≤ ±1.0%(nominal)
		Vo2	≤ ±3.0%(nominal)
Line Voltage Regulation	nominal input, 10% ~ 100% load	Vo1	± 0.2%(nominal)
		Vo2	± 1.5%(nominal)
Load Regulation	nominal input, 10% ~ 100% nominal load	Vo1	≤ ±0.5%(nominal)
		Vo2	≤ ±3.0%(nominal)
Over Current Protection	Input voltage Range, T _c < T _c max		≥ 120% Rated Load
OC Protection Mode			Short, AutoRecovery
Ripple & Noise	Rated Load		< 1%Vo
Load Power Consumption			< 100 mW
Dynamic Response	25% Rated Load	ΔVo1/Δt	200uS
General			
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 (Industrial Grade)	
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	