

## WIRELESS POWER PLATFORM™ TRANSMITTER MODULE (WPT SERIES)

### Features

- Optimized for extending effective range
- Parameters set via serial Interface or external resistors
- Internally matched to 50 ohms
- Low power consumption
- Easily integrated
- Small size
- RoHS compliant
- Designed to meet all international regulatory standards

### General Description

WPT series Powercaster™ modules are programmable frequency sources for use in RF power harvesting applications. The modules encapsulate proprietary algorithms which extend the effective range of power transmission without increasing average power. Numerous standard units are available, with customization available upon request.

The WPT9066 module is optimized for operation in the 902-928MHz ISM band. A highly accurate and stable oscillator centered at 905.8MHz is utilized to minimize wander, distortion, or other ill effects that could cause interference with other devices. Custom frequency ranges are available upon request.

The WPT series of modules is optimized to work within the Powercast Wireless Power Platform, a wireless power network consisting of specialized transmitters and receivers. Please visit [www.Powercastco.com](http://www.Powercastco.com) for more information regarding this exciting new technology.

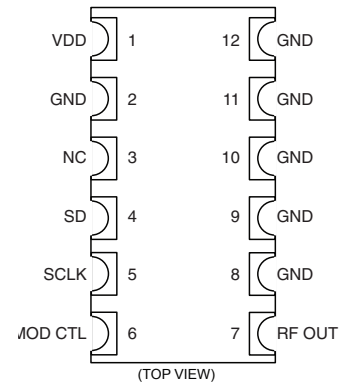
### About Powercast

Powercast, LLC, was founded in 2003 to develop the groundbreaking concept of the Wireless Power Platform. Since its inception, Powercast has broadened its portfolio, grown its skilled management team, and increased its exceptional engineering staff. Today Powercast and its clients are at the forefront of an exciting new wirelessly powered world.

### For More Information

**Powercast, LLC**  
 114 N. Saint Clair Street  
 Ligonier, PA 15658  
[www.powercastco.com](http://www.powercastco.com)  
[info@powercastco.com](mailto:info@powercastco.com)

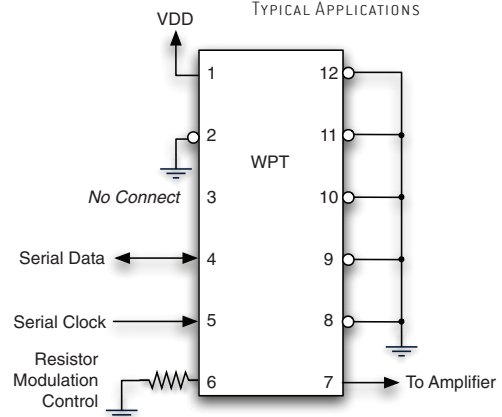
PIN CONFIGURATION



PIN FUNCTIONAL DESCRIPTION

Pin	Label	Function
1	VDD	Connect to power
2, 8-12	GND	Ground, connect to ground plane
3	NC	Do not connect
4	SD	Serial Data I/O used to digitally control modulation
5	SCLK	Serial Clock Input
6	MOD CTL	Connect appropriate resistor value to control modulation algorithm
7	RF OUT	RF Output, internally matched to 50 ohms, connect to amplifier circuit

TYPICAL APPLICATIONS



Note: Resistor or serial interface may be used to adjust transmitter module parameters. The use of the serial interface will override resistor settings.

ORDERING INFORMATION

WPT	9066	-	050	S	1	C	Y
<b>Series Name</b>	<b>Frequency</b>	<b>-</b>	<b>Input Voltage</b>	<b>Form Factor</b>	<b>Version</b>	<b>Temp/Grade</b>	<b>Packaging</b>
WPT: Transmitter	9006: 905.8MHz		050: 5.0V	S: SMT P: SIP	1-Z	C: Consumer I: Industrial M: MIL-SPEC H: Medical	Y: Tray T: Tape R: Reel



**Powercast** *simply wire free™*  
 114 North Saint Clair Street  
 Ligonier, PA 15658  
[www.powercastco.com](http://www.powercastco.com)

# WHITE PAPER

## WIRELESS POWER PLATFORM™ RECEIVER MODULE (WPR SERIES)

### Features

- High conversion efficiency (up to 70%)
- Over-voltage protection
- No external components required (except antenna)
- Internally Matched to 50 ohms
- Low power consumption (<1μW)
- Easily integrated
- Small size
- RoHS compliant
- Designed to meet all international regulatory standards

### General Description

WPR series Powerharvester™ modules are highly efficient RF-to-DC converters for use in RF power harvesting applications. All modules have built-in over-voltage circuitry to avoid battery overcharging and protect voltage-sensitive circuits. Numerous standard voltages are available, with custom voltages available upon request.

The WPR9006 series is optimized for operation in the 902-928MHz ISM band. The WPR2407 series is designed to operate in the 2.4-2.5GHz ISM band. Custom frequency ranges are available upon request.

The WPR series of modules is optimized to work within the Powercast Wireless Power Platform, a wireless power network consisting of specialized transmitters and receivers. Please visit [www.powercastco.com](http://www.powercastco.com) for more information regarding this exciting new technology.

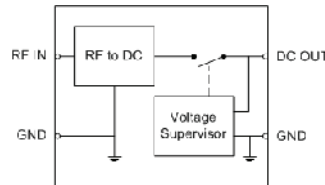
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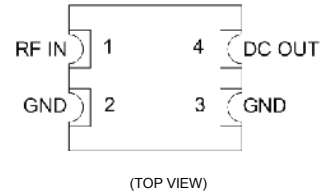
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[info@powercastco.com](mailto:info@powercastco.com)

FUNCTIONAL BLOCK DIAGRAM



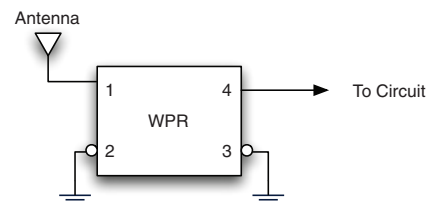
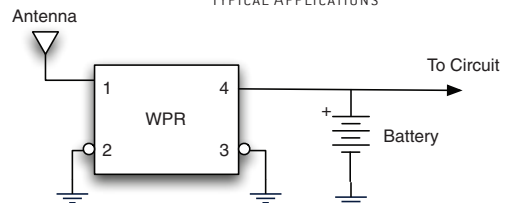
PIN CONFIGURATION



PIN FUNCTIONAL DESCRIPTION

Pin	Label	Function
1	RF IN	RF Input, internally matched to 50 ohms, connect to antenna or transmission line
2,3	GND	RF Ground, connect to analog ground plane
4	DC Out	DC Output, connect directly to a battery or circuitry

TYPICAL APPLICATIONS



ORDERING INFORMATION

WPR	9006	-	030	S	1	C	Y
<b>Series Name</b>	<b>Frequency</b>	-	<b>Output Voltage</b>	<b>Form Factor</b>	<b>Version</b>	<b>Temp/Grade</b>	<b>Packaging</b>
WPR: Receiver	9006: 900MHz 2407: 2.4GHz		012: 1.2V 015: 1.5V 024: 2.4V 030: 3.0V 036: 3.6V 040: 4.0V 060: 6.0V	S: SMT P: SIP	1-Z	C: Consumer I: Industrial M: MIL-SPEC H: Medical	Y: Tray T: Tape R: Reel