

Powercaster™ Module

PRODUCT DATA SHEET

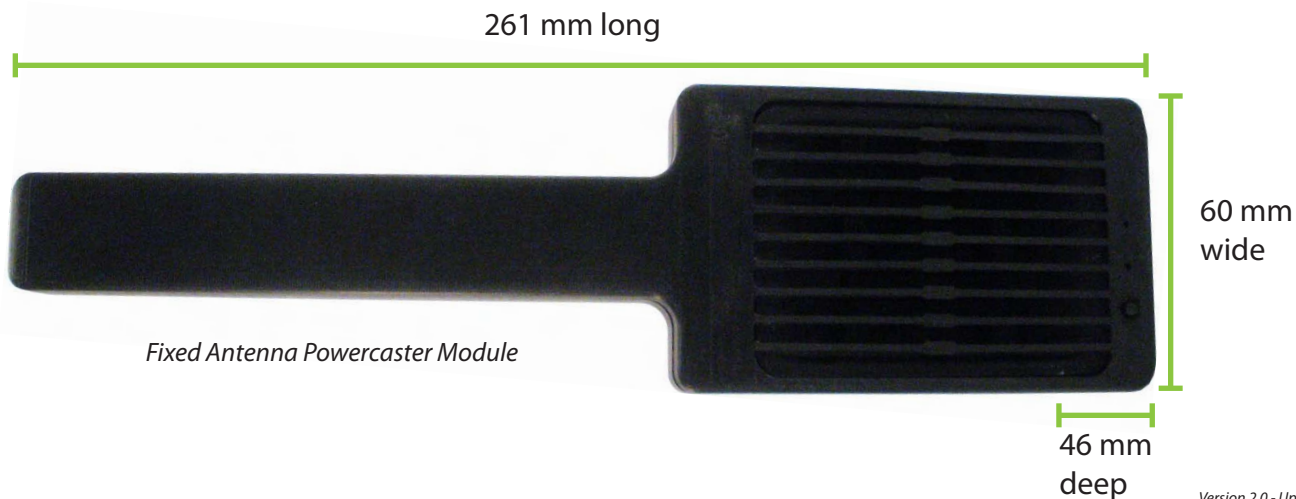
The 915 MHz transmitter is the source of wireless power that transmits a continuous wave signal. The transmitter is housed in a plastic case exposing a DC power connector, an industry standard reverse polarity SMA connector, a push button interface, and LED indicators.

The transmitter has a total fixed power of 3 watts EIRP (Effective Isotropic Radiated Power). Specifically, the module has an output of 2.6 watts with an antenna gain of 1.15 (0.61 dBi). The frequency of transmission can be selected by toggling the channel button. The frequency selections are:



Removable Antenna Powercaster Module

Off (<i>transmission disabled</i>)
903 MHz (<i>default</i>)
905 MHz
907 MHz
909 MHz
911 MHz
913 MHz
915 MHz
917 MHz
919 MHz
921 MHz
923 MHz
925 MHz
927 MHz (<i>cycles back to off</i>)



Fixed Antenna Powercaster Module

Version 2.0 - Updated 4/2009

Powercast is a leader in wireless power with the ability to develop energy harvesting systems for a new class of wirelessly powered sensors, battery recharging, and low wattage lighting.



Model	Removable Antenna Module	Fixed Antenna Module
Radio Frequency	903-927 MHz	903-927 MHz
DC Voltage In	24V DC	24V DC
RF Power Output	2.6W	3W
Dimensions	46 mm x 60 mm x 85 mm	46 mm X 60 mm X 261 mm
Antenna Impedance	50 Ω	N/A
Operating Temperature	-0° to 40° C	-0° to 40° C
Storage Temperature	-20° to 70° C	-20° to 70° C
Compliance	FCC part 18	FCC part 18
Power Consumption	300 ma \pm 10% at 25° C, 24V DC	300 ma \pm 10% at 25° C, 24 V DC
Antenna Connector	Reverse Polarity (SMA)	N/A
Housing	ABS Plastic	ABS Plastic
External Power Supply	110 - 240V AC	110 - 240V AC
DC Input Connector	2.5 mm X 5.5 mm coaxial, center +	2.5 mm X 5.5 mm coaxial, center +
Return Loss Cutback Threshold	3 dB \pm 1dB	3 dB \pm 1dB
Temperature Shutdown Threshold	42° C minimum	42° C minimum
Temperature Shutdown Hysteresis	15° C - 25° C	15° C - 25° C

LED Functionality

PWR LED	TX LED	Status
Off	Off	No DC power applied
On	Off	DC power applied, no RF out
On	On	Unit transmitting
On	Red	Fault, VSWR cutback or thermal shutdown

The transmitter will default to 903 MHz on power up or recovery from an SWR safety condition.