

## Power Consumption Testing

**Test report**

Report Number ..... : 6256  
 Date of issue ..... : Thursday, 20 March 2014  
 Total number of pages ..... : 4

**Product**

Brand ..... : Smart Parking.  
 Type..... : V2 SmartLink Concentrator.

**Client information**

Client ..... : Smart Parking.  
 Address..... : Level 2, 583 Great South Road, Penrose, Auckland, 1061.  
 Purchase order/Reference ..... : 10718.

**Testing Laboratory**

Name ..... : Spectrum Laboratories Ltd.  
 Address..... : 23 Highbrook Drive, East Tamaki, Auckland 2013,  
 New Zealand  
 Contact information ..... : Phone (+64) 9 271 1616 Fax (+64) 9 271 1615

**Standard Specification**

Standard(s) ..... : As instructed by the client.

**Instructions**

*(Refer to Technical Notes section for additional information)*

Scope of assessment..... : As instructed by the client

**Summary**

The five Elexon Parking Controllers returned the results as recorded within this report.

Tested by (name + signature) ..... : *Damian Farrelly*  
 Compliance Engineer



Checked by (name + signature) .... : *Philip Sparrow*  
 Compliance Engineer



### General

This report and the results contained within, relate only to the sample(s) tested, as submitted by the client. It contains no corrections or erasures and must not be quoted except in full.

### Supplied Documentation

<u>Report No</u>	<u>Testing Body</u>	<u>Date</u>	<u>Standard</u>
------------------	---------------------	-------------	-----------------

nil

### Product information

Class classification..... : Class II DC Supply, Class III Controller.  
 Connection to the supply..... : AS/NZS 3112 type plug.  
 Cord attachment type..... : Type X.  
 Degree of ingress protection ..... : IP67 DC Supply, IP20 Controller (Unmarked).  
 Safety extra low voltage ..... : No.  
 Protective impedance..... : No.  
 Thermal control..... : No.  
 Protective device..... : No.

### Dates

Equipment received ..... : 12<sup>th</sup> January 2014  
 Testing completed..... : 11<sup>th</sup> March 2014

### Technical Notes

A Telecom branded sim-card was supplied in addition to the five samples to allow for connection to the cellular network.

Testing was conducted as instructed in an email dated 31<sup>st</sup> January 2014.

All power measurements were taken after the unit was operated for sufficient time to reach steady thermal and load states.

The accuracy of the measurements taken using the calibrated Yokogawa WT210 test equipment are shown below.

Voltage (V)  $(0.1 \% \times 250 \text{ V} + 0.1 \% \times 300 \text{ V}) = \pm 0.550 \%$   
 Power (W)  $(0.1 \% \times 3.197 \text{ W} + 0.1 \% \times 6 \text{ W}) + (0.1 \% \times 3.197 \text{ W} \times 0.5) = \pm 0.011 \%$   
 Power (VA)  $(12.154 \text{ VA} * (\text{TAN}(0.2622182)) * (0.2 \% * 12.154 \text{ VA})) = \pm 0.080 \%$

Calculated with Yokogawa WT210 accuracy formula using actual ranges and readings.

*A maximum calculated power factor of 0.2622182 was recorded. All other data was measured.*

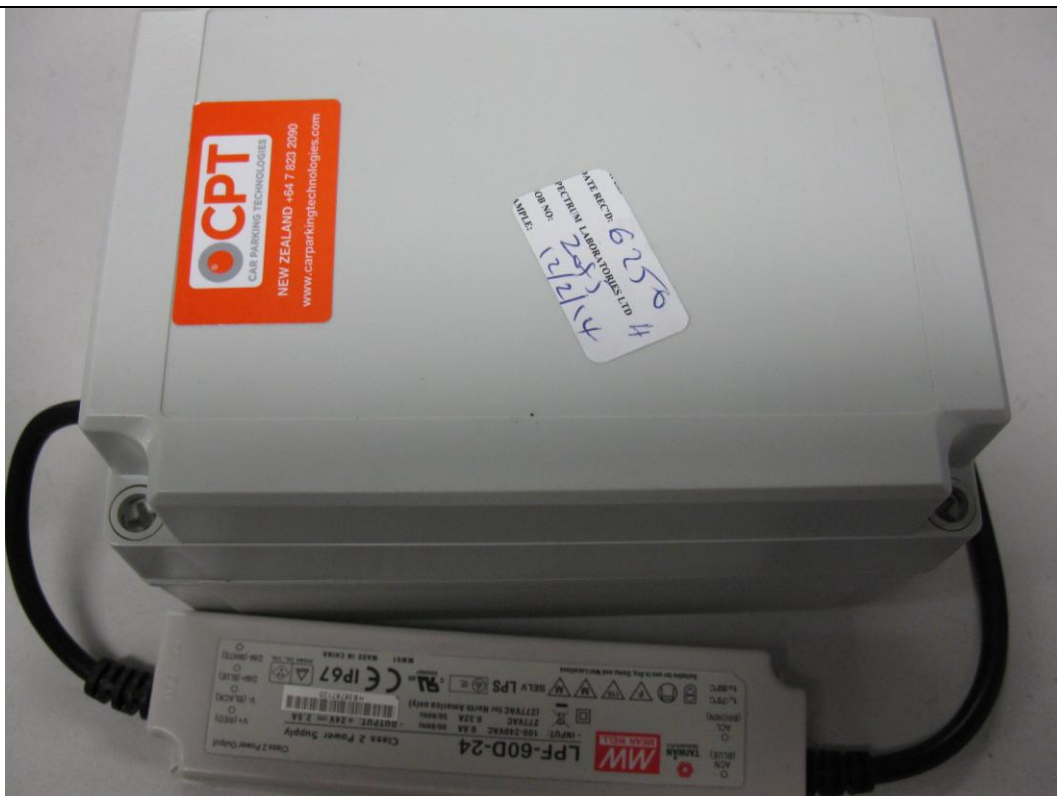
**Results:**

Supply Voltage		Sample (1)	Sample (2)	Sample (3)	Sample (4)	Sample (5)
210	(W)	2.745	2.398	2.76	3.187	2.607
	(VA)	11.864	11.153	11.112	12.154	11.485
	pf	0.231372218	0.215009415	0.24838013	0.2622182	0.226991728
220	(W)	2.871	2.696	2.853	2.993	2.722
	(VA)	12.551	12.065	11.582	12.277	12.158
	pf	0.228746713	0.223456278	0.246330513	0.243789199	0.223885507
230	(W)	2.802	2.615	2.698	3.084	2.791
	(VA)	12.902	12.423	11.878	12.881	12.752
	pf	0.217175632	0.210496659	0.227142617	0.239422405	0.218867629
240	(W)	2.869	2.715	2.982	3.063	2.666
	(VA)	13.478	13.062	12.831	13.321	13.017
	pf	0.21286541	0.207854846	0.232405892	0.229937692	0.204809096
250	(W)	3.034	2.81	2.882	3.197	2.656
	(VA)	14.245	13.695	13.094	14.021	13.453

**Components:**

Object/part No.	Manufacturer /trademark	Type/model	Technical data	Mark(s) of conformity
DC Supply	Meanwell	LPF-60D-24	100-240 VAC, 0.8 A. 24 V, 2.5 A.	CE, TUV, UL

**Photographs: Smart Parking V2 SmartLink Concentrator.**



**External Photo**



**Internal Photo**