



UMS Charge Code Form – Signals and Miscellaneous

ALL APPLICATIONS ARE SUBJECT TO INDUSTRY APPROVAL. IF AN APPLICATION IS LARGE OR CONTENTIOUS, THE APPROVAL PROCESS IS ALSO LIKELY TO TAKE LONGER.

Company Name: Simmons Signs Ltd

Contact Name: Chris Morris

Contact Telephone Number: 01952 217928

Email Address: chrism@simmons signs.co.uk

Please complete all of the questions below using the Guidance Notes supplied as a separate attachment. All fields are mandatory.

Your Test Data and Supporting Evidence

***Please place a cross against all completed steps and attach relevant documents to your email.**

1	Has your equipment been tested by an ISO 17025 accredited test house?	Yes
2	Have you included evidence of the test house's accreditation?	Yes: Test Report
3	Have you included test data for your equipment that meets the requirements outlined in the Guidance Notes below?	Yes: Test Report
4	Have you included a product specification and a photo of your equipment?	Yes: Data Guide

Your Product

		Details
5	What type of equipment are you submitting an application for?	47: LED School Crossing with four flashing LED arrays
6	What is the nominal wattage of your equipment?	Nominal wattage at full power: 5 W
7	How does the equipment operate?	Flashing top and bottom pair alternately around 75 flashes per minute 4 modes available: standby, low, medium, high can be set manually
8	What is the product's name or model number?	SMART PULSA 4X4
9	Is your company the manufacturer of this product?	Yes

Test Report

Report No : L15368

Client: : Link by Design Ltd
Unit 10 Business Development Centre
Stafford Park 4
Telford
TF3 3BA

Description : 4 X 4 PULSA

Manufacturer : Simmonsigns Ltd, Stafford Park 5, Telford, TF3 3AS

Type/Model : 4 X 4 PULSA

Test Specification : Measurement of power consumption in accordance with the
'Unmetered Supplies Operational Information Document' –
Version 14.0 (17/12/2014)

Date Testing Started : 22/10/2015

Conclusion : Refer to body of report

Date of Issue : 27/10/2015

Date of Expiry : 26/10/2020

Tested by: M.ALI
Position: Photometric Engineer



Approved by: K.GOVINDEN
Position: Technical &
Operations Manager



1286

INTRODUCTION

Link by Design Ltd has supplied the product identified in table 1 for measurement of power consumption in accordance with the 'Unmetered Supplies Operational Information Document' – Version 14.0 (17/12/2014).

PRODUCT DETAILS

Table 1. Test Sample Details

Product Description	4 X 4 PULSA
Model No.	4 x 4 PULSA
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	Dia 790mm
Product Supply Requirement	240V 50Hz
Lamp Type and Power	LED
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page

RESULTS

Table 2. Wattage and VA results for 4 X 4 PULSA

Operating Mode	Standby				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	0.80	0.78	0.83	0.80	0.88
220	0.84	0.85	0.84	0.86	0.84
230	0.87	0.89	0.89	0.90	0.90
240	0.84	0.89	0.92	0.91	0.93
250	0.87	0.86	0.86	0.89	0.92
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	2.92	2.91	3.09	2.98	3.12
220	3.13	3.17	3.18	3.19	3.15
230	3.34	3.38	3.40	3.44	3.44
240	3.47	3.56	3.64	3.63	3.68
250	3.57	3.56	3.70	3.73	3.77
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.27	0.27	0.27	0.27	0.28
220	0.27	0.27	0.26	0.27	0.27
230	0.26	0.26	0.26	0.26	0.26
240	0.24	0.25	0.25	0.25	0.25
250	0.24	0.24	0.23	0.24	0.25
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Leading		

Continued on following page

Table 3. Wattage and VA results for 4 X 4 PULSA

Operating Mode	Low				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	1.73	1.74	1.76	1.76	1.77
220	1.75	1.78	1.80	1.80	1.82
230	1.77	1.80	1.83	1.81	1.84
240	1.78	1.80	1.85	1.82	1.86
250	1.81	1.84	1.86	1.87	1.89
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	4.83	4.85	4.89	4.96	4.99
220	4.98	5.03	5.08	5.25	5.29
230	5.19	5.24	5.30	5.36	5.42
240	5.35	5.40	5.49	5.55	5.63
250	5.64	5.74	5.78	5.85	5.90
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.36	0.36	0.36	0.35	0.35
220	0.35	0.35	0.35	0.34	0.34
230	0.34	0.34	0.35	0.34	0.34
240	0.33	0.33	0.34	0.33	0.33
250	0.32	0.32	0.32	0.32	0.32
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Leading		

Continued on following page

Table 4. Wattage and VA results for 4 X 4 PULSA

Operating Mode	Medium				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	3.57	3.62	3.71	3.62	3.77
220	3.60	3.63	3.71	3.64	3.81
230	3.65	3.67	3.74	3.67	3.81
240	3.69	3.69	3.78	3.69	3.87
250	3.86	3.77	3.80	3.80	3.88
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	8.40	8.46	8.58	8.33	8.62
220	8.52	8.53	8.70	8.62	8.93
230	8.70	8.70	8.85	8.78	9.04
240	9.04	9.02	9.19	9.20	9.52
250	9.38	9.19	9.28	9.73	9.90
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.43	0.43	0.43	0.43	0.44
220	0.42	0.43	0.43	0.42	0.43
230	0.42	0.42	0.42	0.42	0.42
240	0.41	0.41	0.41	0.40	0.41
250	0.41	0.41	0.41	0.39	0.39
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Leading		

Continued on following page

Table 5. Wattage and VA results for 4 X 4 PULSA

Operating Mode	High				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	4.98	5.17	5.18	5.03	5.17
220	5.00	5.20	5.24	5.08	5.23
230	5.01	5.23	5.28	5.09	5.27
240	5.05	5.31	5.35	5.13	5.32
250	5.06	5.32	5.38	5.16	5.36
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	10.84	11.11	11.16	10.66	10.90
220	11.11	11.40	11.50	11.01	11.28
230	11.25	11.58	11.71	11.24	11.55
240	11.38	11.79	11.90	11.59	11.94
250	11.70	12.11	12.23	11.63	12.00
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.46	0.47	0.46	0.47	0.47
220	0.45	0.46	0.46	0.46	0.46
230	0.45	0.45	0.45	0.45	0.46
240	0.44	0.45	0.45	0.44	0.45
250	0.43	0.44	0.44	0.44	0.45
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Leading		

Continued on following page

DEVIATION(S) FROM TEST STANDARD

No reported deviations from test standard.

MEASUREMENT UNCERTAINTY

The following expanded uncertainties apply to the measurements shown in the results;

True Power (W): $\pm 0.69\%$, Apparent Power (VA): $\pm 0.61\%$

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Continued on following page

ILLUSTRATION

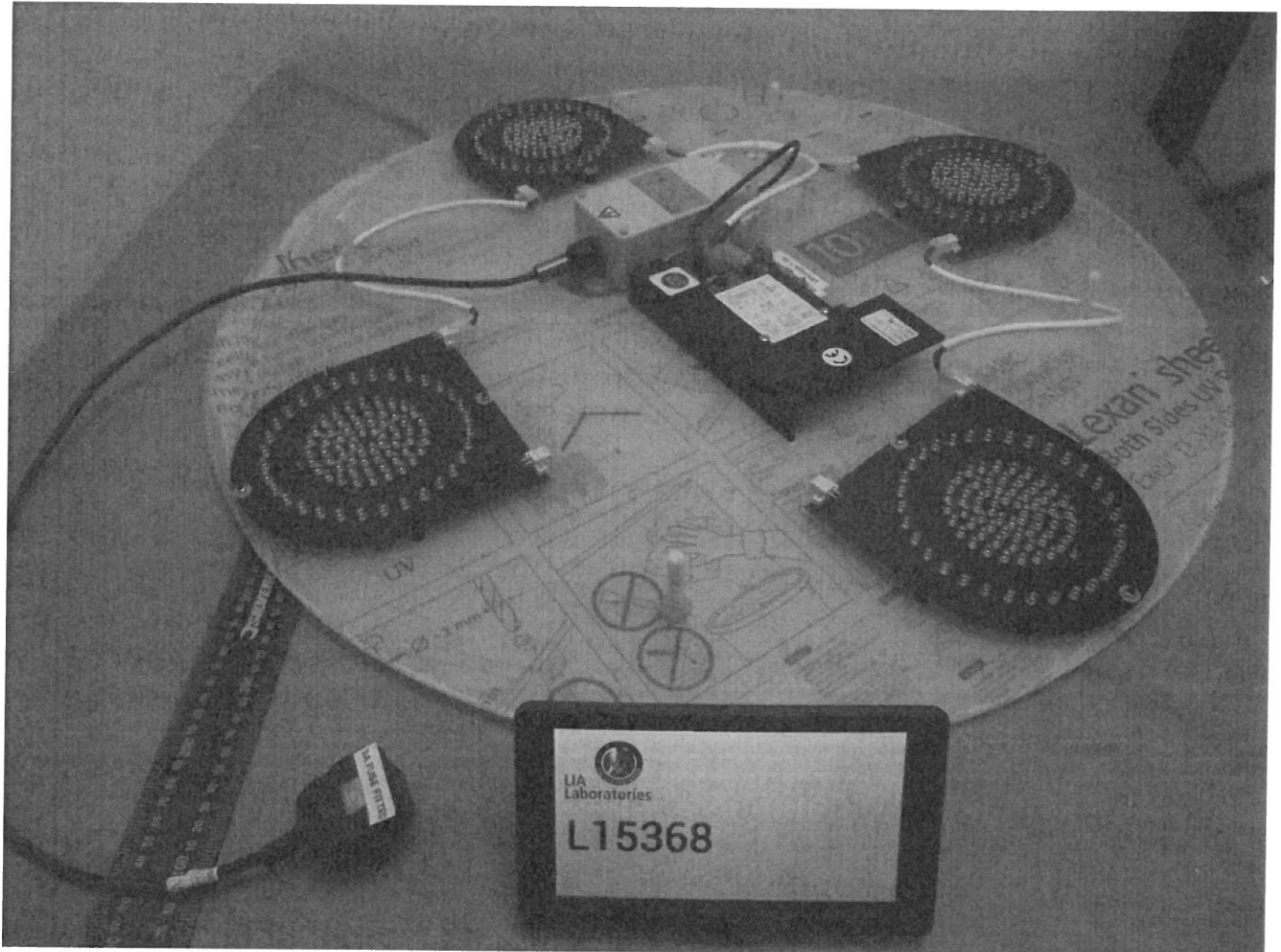


Figure 1. *Product image*

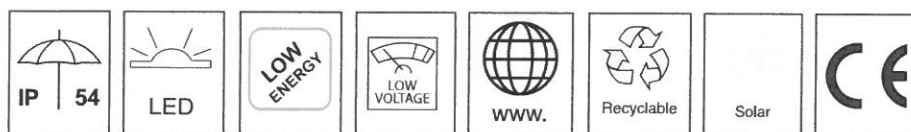
End



SMART PULSA 4X4 | GPRS PULSA 4X4

DESCRIPTION

The 4x4 is a two year programmable school crossing warning signal, available in a size to suit, featuring a pre-wired reflective sign board with four flashing LED arrays, which has been designed for use on Safe Routes to School applications.



CONSTRUCTION

Enclosure

3mm aluminium, acid cleaned, chromate primed and polyester powder coated Grey. Complete with horizontal mounting channel.

Access Door

Secure access to internal elements via six security screws.

Lens Cowls

Die cast LM6-M aluminium, acid cleaned, chromate primed and polyester powder coated to match front enclosure panel.

Lens

5mm thick, high impact, UV stabilised polycarbonate.

LED Array

Super high intensity 5mm LEDs. Centre cluster comprising 64 at 17°, outer ring comprising 32 at 30°. Rated life 100,000 hours. Flashes top and bottom pair alternately at around 75 flashes per minute.

Control Board

Purpose designed LED control circuitry, conformally coated for moisture protection

Graphics

Reflective graphics as required.

Mounting Hardware

Stainless steel twist in toggles - 76,89 or 114mm

OPTIONS

Alternative case colours
Case – various sizes
SMART PULSA 4x4
GPRS PULSA 4x4

POWER REQUIREMENTS

Light Source	LED
Light Source Life (hrs):	100,000
UMSUG Code	T.B.A.
Power (W)	T.B.A.
Operation Voltage	230V AC / 12V DC
Guarantee (yrs)	2

Simmons signs Limited reserves the right to alter or improve this guide without prior notice.

Issue Number: DG144 | Issue Date: October 2015 | Issue Number: 2

Simmons signs Limited
Stafford Park 5, Telford, Shropshire TF3 3AS
Tel: 01952 293 333 Fax: 01952 293 555
Email: sales@simmons signs.co.uk
www.simmons signs.co.uk



SMART PULSA 4X4 | GPRS PULSA 4X4

SWITCHING OPTIONS

	Permanent	Swipe-On	Self Timer	Simpod	Internet	Text
Description	Operates when power is applied and stops when power is removed.	Swipe with key fob to start – continues to operate until swiped again	Swipe with key fob to start – stops when preset time on internal dial (max 150 mins in 10 min intervals) is reached.	2 year programmable timer using Simpod wireless programming kit.	Internet based programming using GPRS mobile communication technology.	Send message from mobile phone to activate.
SMART PULSA 4 x 4	●	●	●	●	X	X
GPRS PULSA 4 x 4	●	●	●	●	●	●

● Standard configurable feature X Not supported

PROGRAMMING

SIMPOD PROGRAMMING KIT

The SIMPOD is a purpose designed data transfer device, allowing computer generated switching information to be downloaded and taken to site. Once on site the SIMPOD uses ZIGBEE wireless technology to communicate with the nearest Smart Palsa and uploads the switching information without the need to open the unit. The SIMPOD is supplied with serial cable, USB adaptor and software.



Capacity	16 x 2 year calendars
Range	Up to 3 metres (adjustable)
Battery	9V PP3 (supplied)
Dimensions	135 x 70 x 25mm
Software	Requires Windows XP or above and one available serial/USB port.

WEB BASED PROGRAMMING

The GPRS Palsa communicates directly with our specially developed web site. This enables the remote programming and interrogation of the GPRS Palsa, which in turn polls operational reports back at set times. In the event of a malfunction, the GPRS Palsa can send a text or e-mail alert to the administrator. The website can be accessed from any computer with an internet connection running Internet Explorer 8.0 or above.



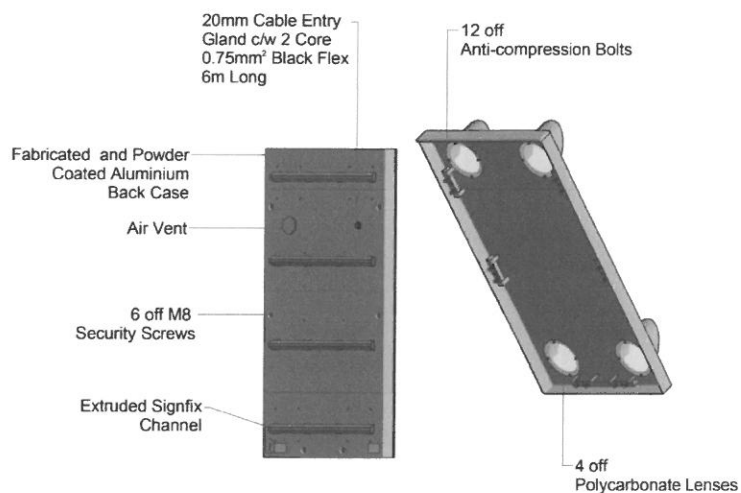
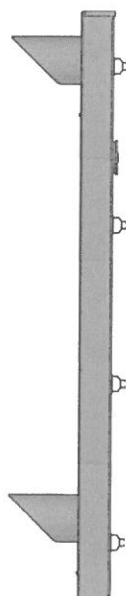
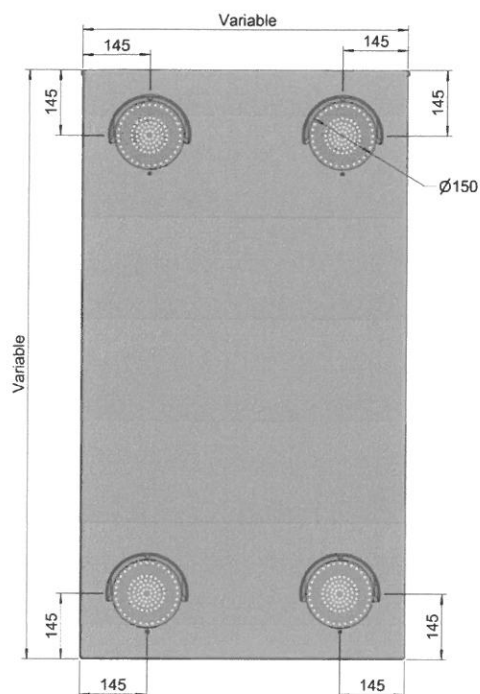
Simmons signs Limited reserves the right to alter or improve this guide without prior notice.

Issue Number: DG144 | Issue Date: October 2015 | Issue Number: 2

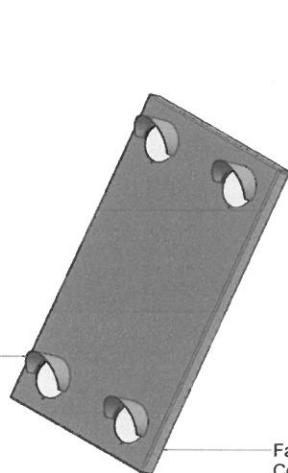
Simmons signs Limited
Stafford Park 5, Telford, Shropshire TF3 3AS
Tel: 01952 293 333 Fax: 01952 293 555
Email: sales@simmons signs.co.uk
www.simmons signs.co.uk



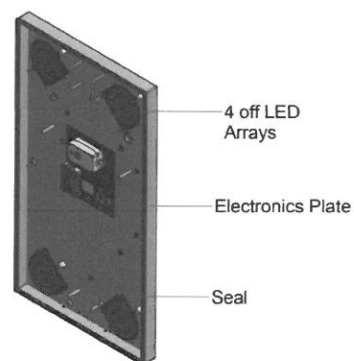
SMART PULSA 4X4 GPRS PULSA 4X4



4 off Powder Coated
Cast Aluminium Cowls



Fabricated and Powder
Coated Aluminium
Front Case



Simmons signs Limited reserves the right to alter or improve this guide without prior notice.

Issue Number: DG144 | Issue Date: October 2015 | Issue Number: 2