350 Traffic Detection Radar

UMS Charge Code Submission

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1. INTRODUCTION

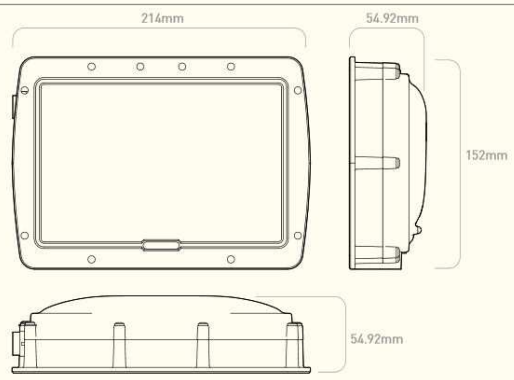
1.1 Document Scope

This document provides data in support of the application for an UMS charge code as detailed in the ELEXON guidance document.

2. Product Overview

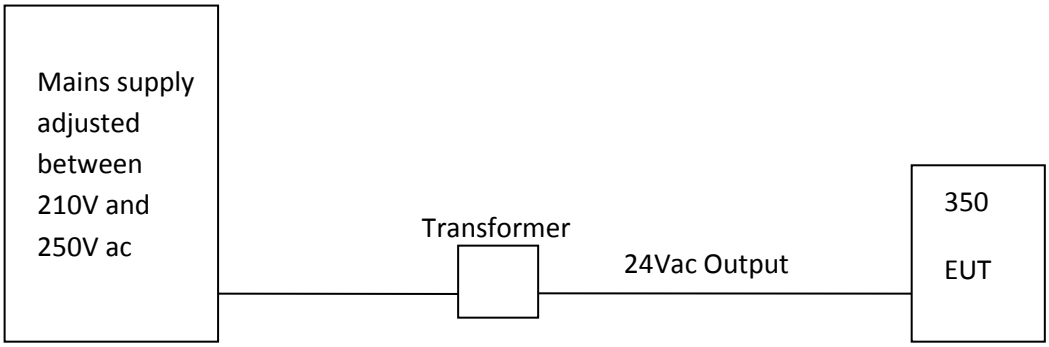
DIMENSIONS:

Unit weight: 900g
Mounting foot weight: 100g



Technology	Phase Mono-pulse FMCW
Radiated Power	<100mW EIRP (<20dBm)
Detect Output	RS422
Range	85m
Mounting Height	3-5m nominal
Housing Material	Black polycarbonate
Sealing	IP66
Operating Temp	-30° C to +60° C
Power	Nominal 15W
Power Supply	24V ac
Approved to:	ETSI EN 300.440 ETSI EN 301.489 BS EN 50293 FCC CFR47 Part 15.245
Patent No.	Patent Pending

3. Test Setup



24Vac Equipment Test Setup

4. Test Results

4.1 Summary at 240V

The following results summarise the data from 5 sample 350 product tested by a UKAS accredited test house, Element Materials Technology https://www.ukas.com/wp-content/uploads/schedule_uploads/00011/00295/0178Product%20Certification.pdf

Circuit Watts at 240V	14.50	14.70	14.50	15.20	14.60
VA at 240V	55.23	55.23	54.99	55.47	54.99

	Calculated Value	Rounded to whole number (except p.f. which is to 2 d.p.)
Average Watts	14.70	15
Average VA	55.18	55
VAr	53.18799793	53
pf	0.266391215	0.27

Note: the results shown above have been entered into the 'Template for Standard Charge Code and Test Data' spreadsheet provided on the ELEXON web site (and it is pre configured for 240V rather than 230V).

4.2 Full Test Results

The following results were obtained from the 5 samples submitted for test.

A comprehensive set of test results can be found in the test report 'AGD 350 Results.pdf' submitted with this document.

Voltage		Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
210	Watts	12.6	12.7	12.5	13	12.6
	VA	29.42	29.63	29.42	29.63	29.42
220	Watts	13.3	13.3	13.2	13.6	13.2
	VA	36.32	36.32	36.32	36.54	36.1
230	Watts	13.8	13.9	13.7	14.3	13.9
	VA	44.65	44.65	44.65	44.88	44.65
240	Watts	14.5	14.7	14.5	15.2	14.6
	VA	55.23	55.23	54.99	55.47	54.99
250	Watts	15.4	15.8	15.4	16.2	15.5
	VA	68.29	68.54	68.29	68.54	68.29