

Curtis-Straus

Worldwide Regulatory Approvals Experts

(A2LA Certificate Number 1627-01)

Technical Report

Company: Escort, Inc.
FRN: 0007508732
Model: Solo 5110
FCC ID: QKL5110
Equipment Code: CRD

Report prepared for:

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Report prepared by:

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EMC Manager

Introduction

This report is an application for Certification of a Radar Detector operating pursuant to 47 CFR 15.109, as amended by ET Docket No. 01-278; FCC 02-211, published in the Federal Register Vol. 67, No. 145 on Monday July 29, 2002.

Statement of Conformity

47 CFR 15.109(h) states that "*Radar detectors shall comply with the emissions limits...of [section 15.109(a)] over the frequency range of 11.7 – 12.2GHz.*" The applicable limit being 500µV/m measured at a distance of 3m. The Escort Solo 5110 has been tested and found to comply with this requirement.

Test Methodology

Radiated emission testing was performed according to the procedures in ANSI C63.4 (2001). The testing was performed at an antenna to EUT distance of 1 meter. Performance was investigated in the range 11.7-12.2GHz. The Solo 5110 was powered by fresh AA batteries. Since the device is a hand-held unit, the emissions were maximized around the three orthogonal axes and the maximum reading was recorded. The integrated antenna cannot be maximized separately.

Test Equipment

SPECTRUM ANALYZERS					
x	Analyzer	Model No.	Company	Serial No.	Calibration Due
X	ORANGE 9kHz-26.5GHz	E4407B	HP	US39440975	07-JUN-2003

OPEN AREA TEST SITES (OATS)					
x	Site	FCC Code	IC Code	VCCI Code	Calibration Due
X	"T" Texas	93448	IC 2762-T	R-905/ C-480	04-FEB-2004

ANTENNAS					
x	Antenna	Model No.	Company	Serial No.	Calibration Due
X	BLACK Horn: 1-18GHz	3115	EMCO	9703-5148	12-JUN-2003

PREAMPLIFIERS / ATTENUATORS					
x	Preamplifier	Model No.	Company	Serial No.	Calibration Due
X	ORANGE-BLACK 1-20GHz	SMC-12A	MITEQ	690639	06-SEP-2002

Unless otherwise noted the calibration interval is one year. All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard. All Open Area Test Sites are located at 527 Great Road, Littleton, MA 01460.

Setup Photo



Model: Solo 5110

Measurement Results

All measurements taken were peak detector readings of the noise floor.
There were no emissions detected from the EUT.

Radiated Emissions Table							Curtis-Straus LLC		
Date: 08-Aug-02			Company: Escort			Table 1			
Engineer: Evan Gould			EUT Desc: Solo 5110			Work Order: C0610			
Frequency Range: 11.7-12.2GHz					Measurement Distance: 1 m				
Notes: Emissions maximized Horizontally and Vertically. All measurements are noise floor readings.									
Antenna Polarization (H / V)	Frequency (MHz)	Reading (dBμV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Reading (dBμV/m)	47 CFR 15.209(a)		
							Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)
Solo	12190.0	31.7	20.0	38.9	4.7	55.3	63.5	-8.2	Pass
Test Sites: "T" Pre-Amp: Or-Blk Cable: 3m Microflex Analyzer: Orange Antennas: Black Horn									

Emission Plot

Agilent 11:39:23 Aug 8, 2002

ESCORT SOLO (max hold) 1m Mkr1 12.1878 GHz
Ref 75 dB μ V #Atten 0 dB 31.73 dB μ VPeak
Log
10
dB/V1 S2
S3 FC

Start 11.66 GHz

#Res BW 1 MHz

VBW 1 MHz

Stop 12.24 GHz

Sweep 4 ms (401 pts)

Alpha Editor

a b c d e f g >

h i j k l m n >

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Space

More
2 of 3

No Peak Found