



FCC Part 1 Subpart I
FCC Part 2 Subpart J
INDUSTRY CANADA RSS-102 ISSUE 5

C2PC RF EXPOSURE REPORT

FOR

RF Module

MODEL NUMBER (HVIN): SC14CVMDECT

**FCC ID: Y82-SC14S
IC ID: 9576A-SC14S**

REPORT NUMBER: 11795311-S1V4

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Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	8/21/2017	Original issue	
V2	9/5/2017	Section 5 – Updated description Various – Corrected model number	Dave Weaver
V3	9/13/2017	Section 5 – Updated description	Dave Weaver
V4	10/17/2017	Section 6 – Added note for the determination of threshold and maximum device power.	Dave Weaver

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Dialog Semiconductor B.V.
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5215MV, s-Hertogenbosch,
The Netherlands

EUT DESCRIPTION: RF Module

MODEL NUMBER: SC14CVMDECT

SERIAL NUMBER: N/A

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 1 SUBPART I & PART 2 SUBPART J	Pass
INDUSTRY CANADA RSS-102 ISSUE 5	Pass

UL Verification Services Inc. calculated the RF Exposure of the above equipment in accordance with the requirements set forth in the above standards, using test results reported in the test report documents referenced below and/or documentation furnished by the applicant. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc., based on interpretations of these calculations. The results show that the equipment is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL Verification Services Inc. By:



Dave Weaver
Program Manager
UL Verification Services Inc.

2. TEST METHODOLOGY

All calculations were made in accordance with FCC KDB 447498 and IC RSS-102 issue 5.

3. REFERENCES

Output power, Duty cycle and Antenna gain data is excerpted from the applicable test reports or client declarations.

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0.

5. Device under test

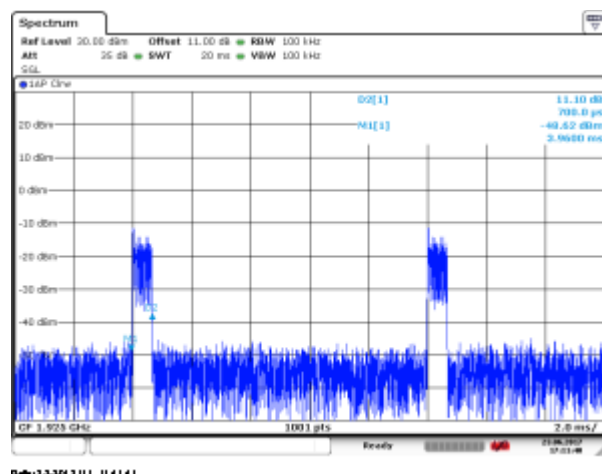
The DUT is an RF module operating in the frequency range 1921 to 1928 MHz. The user to antenna separation distance is 0mm. This device has a DECT module that operates in the 1921 -1928 MHz frequency range. It was set to operate in long slot format (wide-band audio). DECT can only transmit every 10 milliseconds. For every slot, the power amplifier is active for 770 bits (670us).

5.1. Maximum Output Power

The maximum output power of the device is declared as 20.0dBm (100 mW).

5.2. Duty Cycle Power Correction

Duty cycle maximum is 7% (Long Slot mode) for the transmitter.



Burst length = 700us. Repetition rate = 10ms. Duty cycle = 7%

6. STANDALONE SAR TEST EXCLUSION CONSIDERATIONS

6.1. FCC

SAR test exclusion in accordance with KDB 447498 D01 v06.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [f(\text{GHz})] \leq 3.0$, for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

This test exclusion is applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

SAR Exclusion Calculation Table for Portable Devices (separation distance < 50 mm)

Tx	Frequency (MHz)	Max Output power		Duty Cycle	Max Output Power with Duty factor correction (mW)	Separation distances (mm)	Calculated Threshold Value
		dBm	mW				
DECT	1928	20.0	100	7%	7	0	1.9

Conclusion:

The device operates with a maximum Duty Cycle of 7%. The Calculated Threshold with duty cycle applied is ≤ 3 ; therefore, this device qualifies for Standalone SAR test exclusion.

6.2. INDUSTRY CANADA

The SAR exclusion table from RSS-102 issue 5 is reproduced below:

Table 1: SAR evaluation - exemption limits for routine evaluation based on frequency and separation distance.

Frequency MHz	Exemption Limits (mW)				
	At separation distance of ≤5mm	At separation distance of 10mm	At separation distance of 15mm	At separation distance of 20mm	At separation distance of 25mm
≤300	71 mW	101 mW	132 mW	162 mW	193 mW
450	52 mW	70 mW	88 mW	106 mW	123 mW
835	17 mW	30 mW	42 mW	55 mW	67 mW
1900	7 mW	10 mW	18 mW	34 mW	60 mW
2450	4 mW	7 mW	15 mW	30 mW	52 mW
3500	2 mW	6 mW	16 mW	32 mW	55 mW
5800	1 mW	6 mW	15 mW	27 mW	41 mW

Frequency MHz	Exemption Limits (mW)				
	At separation distance of 30mm	At separation distance of 35mm	At separation distance of 40mm	At separation distance of 45mm	At separation distance of ≥50mm
≤300	223 mW	254 mW	284 mW	315 mW	345 mW
450	141 mW	159 mW	177 mW	195 mW	213 mW
835	80 mW	92 mW	105 mW	117 mW	130 mW
1900	99 mW	153 mW	225 mW	316 mW	431 mW
2450	83 mW	123 mW	173 mW	235 mW	309 mW
3500	86 mW	124 mW	170 mW	225 mW	290 mW
5800	56 mW	71 mW	85 mW	97 mW	106 mW

The minimum antenna to user distance that will be encountered in normal use is 0mm. This results in an exemption limit of 7mW at 1900MHz.

Notes:

Threshold and device maximum rated powers (after duty cycle correction) were rounded to the nearest milliwatt for the determination SAR test exclusion.

Tx	Frequency (MHz)	Maximum Avg Power	Antenna Gain	-3.5 dBi	Duty Cycle	Maximum Avg Power with Duty factor correction (mW)
			(dBm)	(mW)		
DECT	1928	Conducted	20.0	100	7%	7
		E.I.R.P	16.5	45	7%	3

As the maximum output power with duty factor correction applied is 7mW conducted and 3mW EIRP, this device qualifies for SAR test exclusion per RSS 102 Issue 5 §2.5.1.

END OF REPORT