FCC Test Report

(Part 22&24)

Product Name : 3G CELLULAR ALARM COMMUNICATOR

Model No : 3G7090

FCC ID : F53163G7090

Applicant : Digital Security Controls Ltd.

Address : 3301 Langstaff Road, Concord, Ontario, Canada, L4K 4L2

Date of Receipt : 2016/06/24

Issued Date : 2016/07/19

Report No. : 1660543R-HPUSP46V00

Report Version : V1.0

Testing Laboratory
3023

Test Report

Issued Date: 2016/07/19
Report No.: 1660543R-HPUSP46V00

Product Name	:	3G CELLULAR ALARM COMMUNICATOR
Applicant	:	Digital Security Controls Ltd.
Address	:	3301 Langstaff Road, Concord, Ontario, Canada, L4K 4L2
Manufacturer	:	Digital Security Controls Ltd.
Trade Name	:	DSC
Model No.	:	3G7090
EUT Rated Voltage	:	DC 3.9V
EUT Test Voltage	:	DC 3.9V
		(provided by HOST that is powered by 120Vac/12Vdc external adapter)
Measurement Standard	:	FCC CFR Title 47 Part 2 22 24
Measurement Reference	:	TIA/EIA 603-C
Test Result	:	Complied

Documented By : Anny Chou
(Senior Adm. Specialist / Anny Chou)

Tested By : Vorana Chen
(Senior Engineer / Vorana Chen)

Approved By :
(Director /Vincent Lin)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	3G CELLULAR ALARM COMMUNICATOR
Model No.	3G7090
Trade Name	DSC
IMEI No.	35669406
FCC ID	F53163G7090
TX Frequency	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band 2: 1852.4 MHz ~ 1907.6 MHz WCDMA Band 5: 826.4 MHz ~ 846.6 MHz
Rx Frequency	GSM850: 869.2 MHz ~ 893.8 MHz GSM1900: 1930.2 MHz ~ 1989.8 MHz WCDMA Band 2: 1932.4 MHz ~ 1987.6 MHz WCDMA Band 5: 871.4 MHz ~ 891.6 MHz
Type of modulation	GPRS: GMSK; EGPRS: 8PSK WCDMA: QPSK (Uplink)
HW Version	UA709 Rev. 02
SW Version	Ver 1.0
Antenna Type	Dipole

1.2. Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	DSC	19001266	2.1 dBi for 824~894 MHz 3.7 dBi for 1850~1990 MHz

1.3. Remarks

1. Only radiated spurious emissions was tested. All conducted measurement are based on Original Report T130225W02-RP.
2. The module has been tested inside the host model WS900-29.
3. Spurious emissions have been tested with all the rest of transmitters activated and the measures have not been affected.

1.4. Operational Description

The information contained within this report is intended to show verification of compliance of the 850/1900MHz to the requirements of FCC 47 CFR Part 2, 22, 24

The EUT provide all functions described as above. The EUT is tested with maximum rated TX power via the Base Station simulator.

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode:	GSM 850 GPRS
	GSM 850 EGPRS
	PCS 1900 GPRS
	PCS 1900 EGPRS
	WCDMA BAND 2
	WCDMA BAND 5

All operation modes have been verified and this is the worst case.

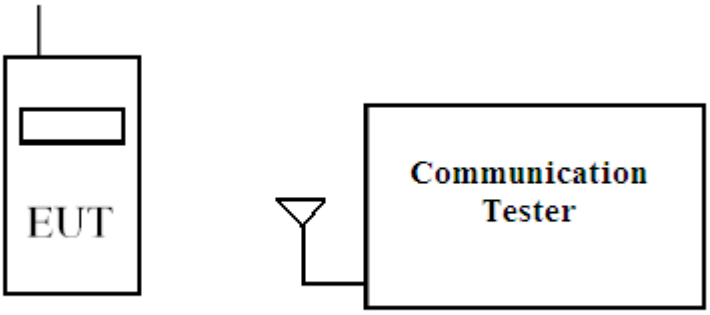
Test Mode:	GSM 850 GPRS
	PCS 1900 GPRS
	WCDMA BAND 2
	WCDMA BAND 5

Note:

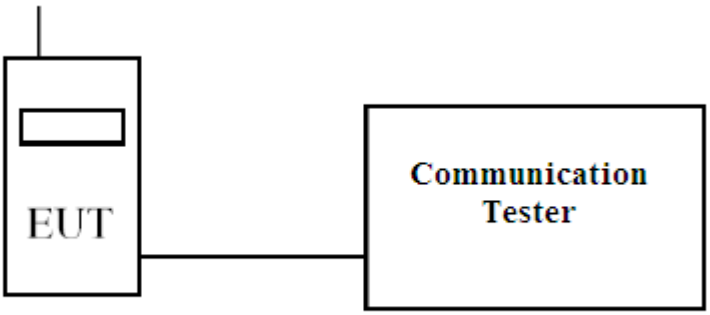
The maximum power levels are GPRS class12 mode for GSM 850/1900, EGPRS class12 mode for GSM 850/1900, RMC 12.2K mode for WCDMA Band 2/5, only these modes were used for all tests.

1.5. Configuration of tested System

(a) Configuration of Radiated measurement



(b) Configuration of Conducted measurement



1.6. EUT Setup Procedures

(1) Setup the EUT and simulators as shown on 1.3
(2) Turn on the power of all equipments.
(3) The EUT was set to communicate with communication tester.
(4) Repeat the above procedure (3).

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	23
Humidity (%RH)	25-75	55
Barometric pressure (mbar)	860-1060	982

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
FCC Registration Number :92195

Site Name: Quie Tek Corporation

LinKou Testing Laboratory:
No.5-22, Ruishukeng, Linkou Dist.,
New Taipei City 24451,
Taiwan, R.O.C.
TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789
E-Mail : service@quietek.com

FCC Accreditation Number: TW1014

1.8. Type of Emission

Note: Please refer to Original Report No.: T130225W02-RP.

1.9. Voltages and DC currents

Note: Please refer to Original Report No.: T130225W02-RP.

2. Technical Test

2.1. Summary of test result

Standard	Test Item	Result	Note
2.1046	Conducted Output Power	Not tested[1]	
22.913(a)			
24.232(c)			
27.5			
2.1049	Occupied Bandwidth	Not tested[1]	
22.917(a)			
24.238(b)			
27.53(g)			
2.1051	Spurious Emission at Antenna Terminals	Pass[1,2]	
22.917(a)			
24.238(a)			
27.53(g)			
2.1051	Conducted Emission	Not tested[1]	
22.917(a)			
24.238(a)			
27.53(g)			
2.1053	Field Strength of Spurious Radiation	Not tested[1]	
22.917(a)			
24.238(a)			
27.53(g)			
2.1055	Frequency Stability for Temperature & Voltage	Not tested[1]	
22.355			
24.235			
27.54			

Note: 1. Please refer to Original Report No.: T130225W02-RP.
2. Only radiated spurious emissions tests were requested.

2.2. List of test Equipment

Radiated / Site3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Bilog Antenna	Schaffner Chase	CBL6112B	2707	2016/06/12
Horn Antenna	R&S	9120D	875	2016/01/17
Pre-Amplifier	Agilent	87405C	MY47010653	2016/02/23
Spectrum Analyzer	Agilent	N9010A	MY52220597	2016/02/18
DC power supply	Agilent	E3610A	MY40009845	2016/07/11
Communication Tester	Agilent	8820C	6201465467	2016/06/21

2.3. Measurement Uncertainty

Radiated Emission (Below 1GHz)

The measurement uncertainty of confidence of 95% is evaluated as ± 3.44 dB .

Radiated Emission (Above 1GHz)

The measurement uncertainty of confidence of 95% is evaluated as ± 4.08 dB

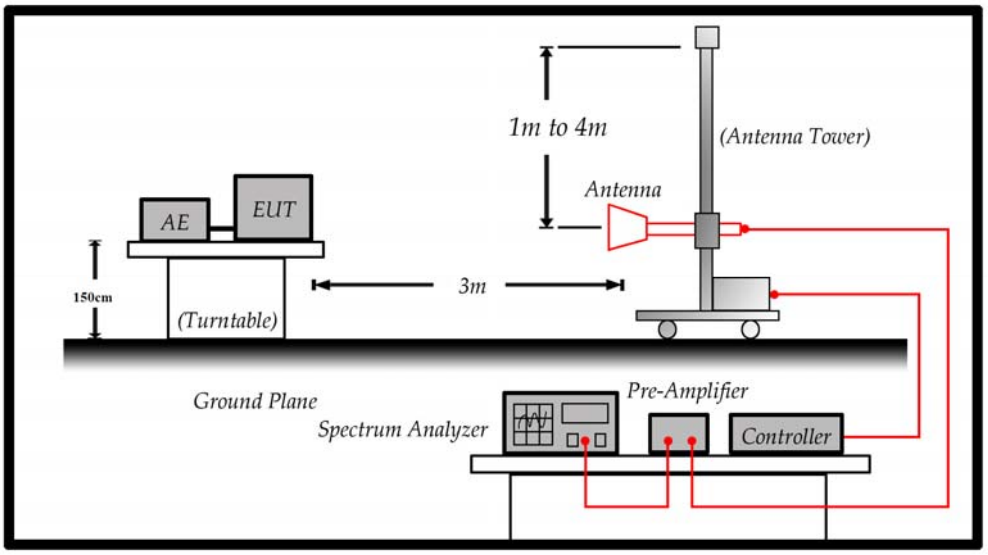
3. Spurious Emission

3.1. Test Specification

According to Part 2.1051, 2.1053, 22.917(a), 24.238(a).

3.2. Test Setup

6.1.1 Field strength of spurious radiation.



3.3. Limits

Limit	<-13dBm

43 + 10Log(P) down on the carrier where P is the power in Watts.

3.4. Test Procedure

In accordance with Part 2.1051/2.1053, the spurious emissions from the EUT were measured. The transmitter output power was attenuated using a combination of filters and attenuators and the frequency spectrum investigated from 30MHz to 20GHz. The EUT was set to transmit on full power. The resolution and video bandwidth was set to 1MHz and 3 x RBW. in accordance with Part 22.917 & 24.238 & 27.53. The spectrum analyzer detector was set to Max Hold. In addition, measurements were made up to the 10^{th} harmonic of the fundamental. The device was then replaced with a substitution antenna, which input signal was adjusted until the received level matched that of the previously detected emission.

(1) The EUT is tested with maximum rated TX power via the Base Station simulator.

(2) The EUT is tested in three orthogonal planes, The worst case test configuration was found in the horizontal position.

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to TIA/EIA 603-C on radiated measurement.

3.5. Test Result of Spurious Emission

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 128 (GPRS 850)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)
Horizontal Emissions						
1648.400	-44.257	-47.646	1.630	9.800	-39.476	-13
2472.600	-43.763	-44.119	2.100	10.600	-35.619	-13
3296.800	-49.763	-51.445	2.350	12.300	-41.495	-13
4121.000	-58.558	-57.552	2.700	12.600	-47.652	-13
4945.200	-56.775	-52.678	2.830	12.700	-42.808	-13
5769.400	-56.119	-54.063	3.200	13.000	-44.263	-13
Vertical Emissions						
1648.400	-48.376	-51.456	1.630	9.800	-43.286	-13
2472.600	-55.301	-55.381	2.100	10.600	-46.881	-13
3296.800	-55.301	-55.929	2.350	12.300	-45.979	-13
4121.000	-58.897	-56.192	2.700	12.600	-46.292	-13
4945.200	-55.681	-51.041	2.830	12.700	-41.171	-13
5769.400	-55.252	-53.071	3.200	13.000	-43.271	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 6 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 189 (GPRS 850)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)
Horizontal Emissions						
1672.800	-44.093	-47.123	1.630	9.800	-38.953	-13
2509.200	-45.514	-46.049	2.100	10.600	-37.549	-13
3345.600	-52.127	-53.779	2.350	12.300	-43.829	-13
4182.000	-58.175	-57.357	2.700	12.600	-47.457	-13
5018.400	-56.561	-52.209	2.830	12.700	-42.339	-13
5854.800	-55.187	-52.075	3.200	13.000	-42.275	-13
Vertical Emissions						
1672.800	-46.514	-49.211	1.630	9.800	-41.041	-13
2509.200	-47.295	-47.341	2.100	10.600	-38.841	-13
3345.600	-54.351	-54.879	2.350	12.300	-44.929	-13
4182.000	-57.570	-55.170	2.700	12.600	-45.270	-13
5018.400	-55.257	-50.256	2.830	12.700	-40.386	-13
5854.800	-54.061	-50.998	3.200	13.000	-41.198	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 6 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 251 (GPRS 850)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)
Horizontal Emissions						
1697.600	-44.147	-46.887	1.630	9.800	-38.717	-13
2546.400	-50.317	-51.157	2.100	10.600	-42.657	-13
3395.200	-53.121	-54.604	2.350	12.300	-44.654	-13
4244.000	-58.051	-56.335	2.700	12.600	-46.435	-13
5092.800	-56.326	-51.762	2.830	12.700	-41.892	-13
5941.600	-54.027	-49.822	3.200	13.000	-40.022	-13
Vertical Emissions						
2546.400	-51.775	-51.766	2.100	10.600	-43.266	-13
3395.200	-55.341	-55.725	2.350	12.300	-45.775	-13
4244.000	-58.055	-55.191	2.700	12.600	-45.291	-13
5092.800	-56.203	-51.358	2.830	12.700	-41.488	-13
5941.600	-55.137	-50.872	3.200	13.000	-41.072	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 6GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 512 (GPRS 1900)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions

3700.400	-44.783	-45.411	2.530	12.600	-35.341	-13
5550.600	-56.813	-53.434	3.050	13.100	-43.384	-13
7400.800	-56.023	-41.343	3.650	11.500	-33.493	-13
9251.000	-59.552	-44.717	3.850	12.000	-36.567	-13
11101.200	-58.830	-41.288	4.580	12.000	-33.868	-13
12951.400	-58.643	-38.707	4.800	13.300	-30.207	-13

Vertical Emissions

3700.400	-50.945	-49.322	2.530	12.600	-39.252	-13
5550.600	-57.554	-53.572	3.050	13.100	-43.522	-13
7400.800	-53.034	-37.953	3.650	11.500	-30.103	-13
9251.000	-59.016	-43.591	3.850	12.000	-35.441	-13
11101.200	-59.974	-42.234	4.580	12.000	-34.814	-13
12951.400	-58.323	-38.684	4.800	13.300	-30.184	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 13GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 661 (GPRS 1900)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)
Horizontal Emissions						
3760.000	-49.935	-50.283	2.530	12.600	-40.213	-13
5640.000	-61.413	-58.732	3.050	13.100	-48.682	-13
7520.000	-61.907	-47.539	3.650	11.500	-39.689	-13
9400.000	-63.698	-48.380	3.850	12.000	-40.230	-13
11280.000	-64.269	-47.808	4.580	12.000	-40.388	-13
13160.000	-64.145	-44.304	4.800	13.300	-35.804	-13
Vertical Emissions						
3760.000	-49.741	-47.759	2.530	12.600	-37.689	-13
5640.000	-62.637	-59.487	3.050	13.100	-49.437	-13
7520.000	-59.605	-44.623	3.650	11.500	-36.773	-13
9400.000	-63.855	-48.024	3.850	12.000	-39.874	-13
11280.000	-64.153	-47.499	4.580	12.000	-40.079	-13
13160.000	-63.679	-43.695	4.800	13.300	-35.195	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 14GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 810 (GPRS 1900)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions

3819.600	-49.828	-50.232	2.530	12.600	-40.162	-13
5729.400	-57.617	-55.559	3.050	13.100	-45.509	-13
7639.200	-58.761	-44.975	3.650	11.500	-37.125	-13
9549.000	-59.241	-44.847	3.850	12.000	-36.697	-13
11458.800	-59.096	-40.406	4.580	12.000	-32.986	-13
13368.600	-57.338	-36.829	4.800	13.300	-28.329	-13

Vertical Emissions

3819.600	-52.672	-50.550	2.530	12.600	-40.480	-13
5729.400	-57.031	-54.864	3.050	13.100	-44.814	-13
7639.200	-56.572	-42.188	3.650	11.500	-34.338	-13
9549.000	-59.129	-44.125	3.850	12.000	-35.975	-13
11459.000	-59.829	-41.247	4.580	12.000	-33.827	-13
13368.600	-58.170	-37.895	4.800	13.300	-29.395	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 14GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 9262 (WCDMA BAND 2)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions

3704.800	-49.610	-50.218	2.530	12.600	-40.148	-13
5557.200	-56.368	-53.042	3.050	13.100	-42.992	-13
7409.600	-57.219	-42.564	3.650	11.500	-34.714	-13
9262.000	-58.814	-43.932	3.850	12.000	-35.782	-13
11114.400	-60.055	-42.590	4.580	12.000	-35.170	-13
12966.800	-58.242	-38.226	4.800	13.300	-29.726	-13

Vertical Emissions

3704.800	-50.946	-49.306	2.530	12.600	-39.236	-13
5557.200	-56.384	-52.441	3.050	13.100	-42.391	-13
7409.600	-57.255	-42.168	3.650	11.500	-34.318	-13
9262.000	-58.999	-43.514	3.850	12.000	-35.364	-13
11114.400	-59.623	-42.001	4.580	12.000	-34.581	-13
12966.800	-58.689	-39.005	4.800	13.300	-30.505	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 13 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 9400 (WCDMA BAND 2)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)
Horizontal Emissions						
3760.000	-49.046	-49.394	2.530	12.600	-39.324	-13
5640.000	-56.954	-54.273	3.050	13.100	-44.223	-13
7520.000	-58.789	-44.421	3.650	11.500	-36.571	-13
9400.000	-60.015	-44.697	3.850	12.000	-36.547	-13
11280.000	-59.995	-43.534	4.580	12.000	-36.114	-13
13160.000	-59.288	-39.447	4.800	13.300	-30.947	-13
Vertical Emissions						
3760.000	-54.516	-52.534	2.530	12.600	-42.464	-13
5640.000	-55.593	-52.443	3.050	13.100	-42.393	-13
7520.000	-58.109	-43.127	3.650	11.500	-35.277	-13
9400.000	-59.583	-43.752	3.850	12.000	-35.602	-13
11280.000	-59.386	-42.732	4.580	12.000	-35.312	-13
13160.000	-57.533	-37.549	4.800	13.300	-29.049	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 14 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 9538 (WCDMA BAND 2)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)
Horizontal Emissions						
3815.200	-51.318	-51.703	2.530	12.600	-41.633	-13
5722.800	-55.749	-53.650	3.050	13.100	-43.600	-13
7630.400	-58.688	-44.832	3.650	11.500	-36.982	-13
9538.000	-59.222	-44.700	3.850	12.000	-36.550	-13
11445.600	-59.587	-41.133	4.580	12.000	-33.713	-13
13353.200	-58.537	-38.222	4.800	13.300	-29.722	-13
Vertical Emissions						
3815.200	-53.071	-50.924	2.530	12.600	-40.854	-13
5722.800	-56.930	-54.724	3.050	13.100	-44.674	-13
7630.400	-58.970	-44.522	3.650	11.500	-36.672	-13
9538.000	-59.386	-44.275	3.850	12.000	-36.125	-13
11445.600	-60.118	-41.777	4.580	12.000	-34.357	-13
13353.200	-58.125	-37.991	4.800	13.300	-29.491	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 14 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 4132 (WCDMA BAND 5)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)
Horizontal Emissions						
1652.800	-45.810	-48.821	1.630	9.800	-40.651	-13
2479.200	-42.942	-43.017	2.100	10.600	-34.517	-13
3305.600	-56.526	-57.152	2.350	12.300	-47.202	-13
4132.000	-58.562	-55.912	2.700	12.600	-46.012	-13
4958.400	-57.272	-52.536	2.830	12.700	-42.666	-13
5784.800	-54.719	-52.629	3.200	13.000	-42.829	-13
Vertical Emissions						
1652.800	-49.258	-52.269	1.630	9.800	-44.099	-13
2479.200	-53.985	-54.060	2.100	10.600	-45.560	-13
3305.600	-56.471	-57.097	2.350	12.300	-47.147	-13
4132.000	-59.253	-56.603	2.700	12.600	-46.703	-13
4958.400	-57.807	-53.071	2.830	12.700	-43.201	-13
5784.800	-55.683	-53.593	3.200	13.000	-43.793	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 6 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 4183 (WCDMA BAND 5)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)
Horizontal Emissions						
1673.200	-48.520	-51.544	1.630	9.800	-43.374	-13
2509.800	-50.220	-50.760	2.100	10.600	-42.260	-13
3346.400	-57.272	-58.924	2.350	12.300	-48.974	-13
4183.000	-59.414	-58.585	2.700	12.600	-48.685	-13
5019.600	-57.539	-53.183	2.830	12.700	-43.313	-13
5856.200	-56.218	-53.084	3.200	13.000	-43.284	-13
Vertical Emissions						
1673.200	-48.503	-51.194	1.630	9.800	-43.024	-13
2509.800	-46.110	-46.155	2.100	10.600	-37.655	-13
3346.400	-56.940	-57.466	2.350	12.300	-47.516	-13
4183.000	-59.286	-56.891	2.700	12.600	-46.991	-13
5019.600	-56.950	-51.951	2.830	12.700	-42.081	-13
5856.200	-55.421	-52.331	3.200	13.000	-42.531	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 6 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	3G CELLULAR ALARM COMMUNICATOR		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/07/14	Test Site	OATS 3
Test Condition	Channel 4233 (WCDMA BAND 5)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)
Horizontal Emissions						
1693.200	-50.594	-53.380	1.630	9.800	-45.210	-13
2539.800	-49.443	-50.229	2.100	10.600	-41.729	-13
3386.400	-57.159	-58.728	2.350	12.300	-48.778	-13
4233.000	-59.387	-57.842	2.700	12.600	-47.942	-13
5079.600	-56.826	-52.230	2.830	12.700	-42.360	-13
5926.200	-55.281	-51.246	3.200	13.000	-41.446	-13
Vertical Emissions						
1693.200	-54.262	-56.639	1.630	9.800	-48.469	-13
2539.800	-52.682	-52.683	2.100	10.600	-44.183	-13
3386.400	-57.200	-57.610	2.350	12.300	-47.660	-13
4233.000	-59.479	-56.753	2.700	12.600	-46.853	-13
5079.600	-56.628	-51.755	2.830	12.700	-41.885	-13
5926.200	-55.620	-51.476	3.200	13.000	-41.676	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 6 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.