



RF Exposure Evaluation Report

APPLICANT : ZTE CORPORATION
EQUIPMENT : GSM/WCDMA/LTE CPE
BRAND NAME : ZTE
MODEL NAME : Z700
FCC ID : Q78-Z700
FILING TYPE : Certification
STANDARD : OET Bulletin 65 Supplement C (Edition 01-01)

We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the device has been evaluated in accordance with FCC OET Bulletin 65 Supplement C (Edition 01-01), and pass the limit. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

Reviewed by:

Jones Tsai / Manager

SPORTON INTERNATIONAL (KUNSHAN) INC.
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.



Table of Contents

1. ADMINISTRATION DATA	4
1.1. Testing Laboratory	4
1.2. Applicant	4
1.3. Manufacturer	4
2. DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)	5
3. RF EXPOSURE LIMIT INTRODUCTION	6
4. MAXIMUM RF AVERAGE OUTPUT POWER AMONG PRODUCTION UNITS	7
5. CONDUCTED RF OUTPUT POWER (UNIT: DBM).....	10
6. RADIO FREQUENCY RADIATION EXPOSURE EVALUATION	20



Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA2D2804	Rev. 01	Initial issue of report	Mar. 21, 2013

**1. Administration Data****1.1. Testing Laboratory**

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958

1.2. Applicant

Company Name	ZTE CORPORATION
Address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

1.3. Manufacturer

Company Name	ZTE CORPORATION
Address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	GSM/WCDMA/LTE CPE
Brand Name	ZTE
Model Name	Z700
FCC ID	Q78-Z700
Tx Frequency	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 17 : 706.5 MHz ~ 713.5 MHz WLAN2.4GHz: 2412 MHz ~ 2462 MHz
Antenna Type	WWAN: Monopole Antenna WLAN Ant 1: Monopole Antenna type WLAN Ant 2: IFA Antenna type
HW Version	dcmA
SW Version	Z700V1.0.1
Uplink Modulation	GPRS: GMSK EDGE: GMSK / 8PSK WCDMA (Rel 99): QPSK HSDPA (Rel 6): QPSK HSUPA (Rel 6): QPSK HSPA+: 16QAM (Downlink Only) 802.11b: DSSS (DBPSK / DQPSK / CCK) 802.11g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

3. RF Exposure Limit Introduction

The FCC categorizes the RF exposure limit based on the intended usage of the device and the user's awareness and ability to exercise control over his or her exposure. This is a consumer product to be used in the home, hence this device was evaluated by mobile device with general population/uncontrolled exposure condition. The definition of these category are shown as follows:

▪ **Mobile Devices:**

A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to be generally used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitters' radiating structures and the body of the user or nearby persons. Transmitters designed to be used by consumers or workers that can be easily re-located are considered mobile devices if they meet the 20 centimeter separation requirement. The FCC rules for evaluating mobile devices for RF compliance are found in 47 CFR 2.1091.

▪ **General Population/Uncontrolled Exposure:**

The general population / uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity. Warning labels placed on low-power consumer devices such as cellular telephones are not considered sufficient to allow the device to be considered under the occupational/controlled category and the general population/uncontrolled exposure limits apply to these devices.

Per OET Bulletin 65, the power density limit for General Population/Uncontrolled Exposure summary here:

Table: Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Power Density (S) (mW/cm ²)
0.3–1.34	*(100)
1.34–30	*(180/f ²)
30–300	0.2
300–1500	f/1500
1500–100,000	1.0

f = frequency in MHz

* = Plane-wave equivalent power density

4. Maximum RF average output power among production units

Mode	GSM 850 (dBm)	GSM 1900 (dBm)
GSM (GMSK, 1 Tx slot)	32.5	29

Mode	WCDMA Band V (dBm)	WCDMA Band II (dBm)
RMC 12.2Kbps	23.5	23
HSDPA Subtest-1	22.5	22
HSUPA Subtest-5	22	21.5

LTE Band 2				
Modulation	BW (MHz)	RB size	Target MPR (dB)	Power (dBm)
QPSK	20	≤ 18	0	23.0
QPSK	20	> 18	1	22.0
16QAM	20	≤ 18	1	22.0
16QAM	20	> 18	2	21.0
QPSK	15	≤ 16	0	23.0
QPSK	15	> 16	1	22.0
16QAM	15	≤ 16	1	22.0
16QAM	15	> 16	2	21.0
QPSK	10	≤ 12	0	23.0
QPSK	10	> 12	1	22.0
16QAM	10	≤ 12	1	22.0
16QAM	10	> 12	2	21.0
QPSK	5	≤ 8	0	23.0
QPSK	5	> 8	1	22.0
16QAM	5	≤ 8	1	22.0
16QAM	5	> 8	1	22.0
QPSK	3	≤ 4	0	23.0
QPSK	3	> 4	1	22.0
16QAM	3	≤ 4	1	22.0
16QAM	3	> 4	2	21.0
QPSK	1.4	≤ 5	0	23.0
QPSK	1.4	> 5	1	22.0
16QAM	1.4	≤ 5	1	22.0
16QAM	1.4	> 5	2	21.0

LTE Band 4				
Modulation	BW (MHz)	RB size	Target MPR (dB)	Power (dBm)
QPSK	20	≤ 18	0	23.0
QPSK	20	> 18	0	23.0
16QAM	20	≤ 18	0	23.0
16QAM	20	> 18	2	21.0
QPSK	15	≤ 16	0	23.0
QPSK	15	> 16	1	22.0
16QAM	15	≤ 16	1	22.0
16QAM	15	> 16	2	21.0
QPSK	10	≤ 12	0	23.0
QPSK	10	> 12	1	22.0
16QAM	10	≤ 12	1	22.0
16QAM	10	> 12	2	21.0
QPSK	5	≤ 8	0	23.0
QPSK	5	> 8	1	22.0
16QAM	5	≤ 8	1	22.0
16QAM	5	> 8	1	22.0
QPSK	3	≤ 4	0	23.0
QPSK	3	> 4	1	22.0
16QAM	3	≤ 4	1	22.0
16QAM	3	> 4	1	22.0
QPSK	1.4	≤ 5	0	23.0
QPSK	1.4	> 5	1	22.0
16QAM	1.4	≤ 5	1	22.0
16QAM	1.4	> 5	2	21.0

LTE Band 5				
Modulation	BW (MHz)	RB size	Target MPR (dB)	Power (dBm)
QPSK	10	≤ 12	0	23.0
QPSK	10	> 12	1	22.0
16QAM	10	≤ 12	1	22.0
16QAM	10	> 12	2	21.0
QPSK	5	≤ 8	0	23.0
QPSK	5	> 8	1	22.0
16QAM	5	≤ 8	1	22.0
16QAM	5	> 8	2	21.0
QPSK	3	≤ 4	0	23.0
QPSK	3	> 4	1	22.0
16QAM	3	≤ 4	1	22.0
16QAM	3	> 4	2	21.0
QPSK	1.4	≤ 5	0	23.0
QPSK	1.4	> 5	0	23.0
16QAM	1.4	≤ 5	1	22.0
16QAM	1.4	> 5	1	22.0

LTE Band 17				
Modulation	BW (MHz)	RB size	Target MPR (dB)	Power (dBm)
QPSK	10	≤ 12	0	23.0
QPSK	10	> 12	1	22.0
16QAM	10	≤ 12	1	22.0
16QAM	10	> 12	2	21.0
QPSK	5	≤ 8	0	23.0
QPSK	5	> 8	1	22.0
16QAM	5	≤ 8	1	22.0
16QAM	5	> 8	2	21.0

IEEE 802.11 Average power (dBm)				
Mode/Band	a	b	g	n
WLAN 2.4GHz		18	16	13

5. Conducted RF Output Power (Unit: dBm)

<GSM Conducted Power>

Band: GSM850	Burst Average Power (dBm)			Frame-Average Power (dBm)		
Channel	128	189	251	128	189	251
Frequency (MHz)	824.2	836.4	848.8	824.2	836.4	848.8
GSM (GMSK, 1 Tx slot)	32.18	32.16	32.01	23.18	23.16	23.01

Remark: The frame-averaged power is linearly scaled the maximum burst averaged power over 8 time slots.
The calculated method are shown as below:

Frame-averaged power = Maximum burst averaged power (1 Tx Slot) - 9 dB

Band: GSM1900	Burst Average Power (dBm)			Frame-Average Power (dBm)		
Channel	512	661	810	512	661	810
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8
GSM (GMSK, 1 Tx slot)	28.64	28.52	28.84	19.64	19.52	19.84

Remark: The frame-averaged power is linearly scaled the maximum burst averaged power over 8 time slots.
The calculated method are shown as below:

Frame-averaged power = Maximum burst averaged power (1 Tx Slot) - 9 dB

<WCDMA Conducted Power>

WCDMA Average power (dBm)							
Band		WCDMA Band V			WCDMA Band II		
Channel		4132	4182	4233	9262	9400	9538
Frequency (MHz)		826.4	836.4	846.6	1852.4	1880.0	1907.6
3GPP Rel 99	RMC 12.2K	23.01	22.79	22.87	22.77	22.62	22.49
3GPP Rel 6	HSDPA Subtest-1	22.04	22.00	21.96	21.61	21.68	21.63
3GPP Rel 6	HSDPA Subtest-2	21.44	21.33	21.31	21.26	21.21	21.11
3GPP Rel 6	HSDPA Subtest-3	21.45	21.31	22.87	22.76	22.71	22.43
3GPP Rel 6	HSDPA Subtest-4	21.42	21.32	21.31	21.08	21.05	21.03
3GPP Rel 6	HSUPA Subtest-1	21.85	21.43	22.09	21.26	21.89	20.85
3GPP Rel 6	HSUPA Subtest-2	20.59	21.00	20.91	20.01	20.40	20.29
3GPP Rel 6	HSUPA Subtest-3	20.06	20.65	20.41	19.62	20.67	20.59
3GPP Rel 6	HSUPA Subtest-4	21.55	21.19	20.97	20.99	20.77	20.49
3GPP Rel 6	HSUPA Subtest-5	21.72	21.65	21.69	21.10	21.37	21.10

**<LTE Conducted Power>**

		LTE Band 2						
BW [MHz]	Mod / RB (Size - Offset)	Average Power. (dBm)			3GPP MPR	MPR Result (dB)		
		Low Ch	Mid Ch	High Ch		Low Ch	Mid Ch	High Ch
Channel		18700	18900	19100		18700	18900	19100
Frequency (MHz)		1860	1880	1900		1860	1880	1900
20	QPSK 1-0	22.52	22.75	22.32	0	0.00	0.00	0.00
20	QPSK 1-49	22.45	22.57	22.30		0.07	0.18	0.02
20	QPSK 1-99	22.38	22.31	22.15		0.14	0.44	0.17
20	QPSK 50-0	21.24	21.38	21.37	≤ 1	1.28	1.37	0.95
20	QPSK 50-24	21.16	21.30	21.23		1.36	1.45	1.09
20	QPSK 50-49	21.12	21.28	21.06		1.40	1.47	1.26
20	QPSK 100-0	21.25	21.26	21.10	≤ 1	1.27	1.49	1.22
20	16QAM 1-0	21.46	21.66	21.16		1.06	1.09	1.16
20	16QAM 1-49	21.43	21.61	21.14		1.09	1.14	1.18
20	16QAM 1-99	21.28	21.26	21.06	≤ 2	1.24	1.49	1.26
20	16QAM 50-0	20.22	20.41	19.93		2.30	2.34	2.39
20	16QAM 50-24	20.15	20.29	19.89		2.37	2.46	2.43
20	16QAM 50-49	20.19	20.27	19.90	≤ 2	2.33	2.48	2.42
20	16QAM 100-0	20.21	20.26	20.03		2.31	2.49	2.29
Channel		18675	18900	19125		18675	18900	19125
Frequency (MHz)		1857.5	1880	1902.5		1857.5	1880	1902.5
15	QPSK 1-0	22.36	22.43	22.41	0	0.00	0.00	0.00
15	QPSK 1-37	22.32	22.40	22.33		0.04	0.03	0.08
15	QPSK 1-74	22.29	22.31	21.99		0.07	0.12	0.42
15	QPSK 36-0	21.33	21.46	21.18	≤ 1	1.03	0.97	1.23
15	QPSK 36-19	21.24	21.28	21.11		1.12	1.15	1.30
15	QPSK 36-39	21.19	21.23	21.08		1.17	1.20	1.33
15	QPSK 75-0	21.24	21.21	21.03	≤ 1	1.12	1.22	1.38
15	16QAM 1-0	21.53	21.51	21.36		0.83	0.92	1.05
15	16QAM 1-37	21.45	21.47	21.28		0.91	0.96	1.13
15	16QAM 1-74	21.37	21.34	21.16	≤ 2	0.99	1.09	1.25
15	16QAM 36-0	20.36	20.38	20.19		2.00	2.05	2.22
15	16QAM 36-19	20.26	20.33	20.08		2.10	2.10	2.33
15	16QAM 36-39	20.20	20.27	20.01	≤ 2	2.16	2.16	2.40
15	16QAM 75-0	20.08	20.18	20.07		2.28	2.25	2.34
Channel		18650	18900	19150		18650	18900	19150
Frequency (MHz)		1855	1880	1905		1855	1880	1905
10	QPSK 1-0	22.41	22.46	22.46	0	0.00	0.00	0.00
10	QPSK 1-24	22.36	22.43	22.39		0.05	0.03	0.07
10	QPSK 1-49	22.33	22.26	22.30		0.08	0.20	0.16
10	QPSK 25-0	21.45	21.51	21.17	≤ 1	0.96	0.95	1.29
10	QPSK 25-12	21.32	21.38	21.13		1.09	1.08	1.33
10	QPSK 25-24	21.25	21.26	21.07		1.16	1.20	1.39
10	QPSK 50-0	21.23	21.23	21.02	≤ 1	1.18	1.23	1.44
10	16QAM 1-0	21.43	21.41	21.38		0.98	1.05	1.08
10	16QAM 1-24	21.39	21.28	21.32		1.02	1.18	1.14
10	16QAM 1-49	21.27	21.13	21.28	≤ 2	1.14	1.33	1.18
10	16QAM 25-0	20.26	20.45	20.19		2.15	2.01	2.27
10	16QAM 25-12	20.23	20.34	20.14		2.18	2.12	2.32
10	16QAM 25-24	20.19	20.22	20.08	≤ 2	2.22	2.24	2.38
10	16QAM 50-0	20.15	20.19	20.04		2.26	2.27	2.42
Channel		18625	18900	19175		18625	18900	19175
Frequency (MHz)		1852.5	1880	1907.5		1852.5	1880	1907.5
5	QPSK 1-0	22.38	22.33	22.36	0	0.00	0.00	0.00
5	QPSK 1-12	22.32	22.26	22.32		0.06	0.07	0.04
5	QPSK 1-24	22.26	22.23	22.24		0.12	0.10	0.12
5	QPSK 12-0	21.83	21.75	21.87	≤ 1	0.55	0.58	0.49
5	QPSK 12-6	21.74	21.76	21.75		0.64	0.57	0.61
5	QPSK 12-11	21.85	21.63	21.93		0.53	0.70	0.43
5	QPSK 25-0	21.36	21.77	21.16	≤ 1	1.02	0.56	1.20
5	16QAM 1-0	21.33	21.31	21.43		1.05	1.02	0.93
5	16QAM 1-12	21.28	21.27	21.32		1.10	1.06	1.04
5	16QAM 1-24	21.23	21.23	21.26	≤ 2	1.15	1.10	1.10
5	16QAM 12-0	21.08	20.46	21.02		1.30	1.87	1.34
5	16QAM 12-6	21.03	20.42	21.01		1.35	1.91	1.35
5	16QAM 12-11	21.00	20.35	21.03	≤ 2	1.38	1.98	1.33
5	16QAM 25-0	20.87	20.13	20.21		1.51	2.20	2.15



RF Exposure Evaluation Report

Report No. : FA2D2804

Channel	18615	18900	19185		18615	18900	19185
Frequency (MHz)	1851.5	1880	1908.5		1851.5	1880	1908.5
3 QPSK 1-0	22.40	22.52	22.41	0	0.00	0.00	0.00
3 QPSK 1-7	22.37	22.49	22.35		0.03	0.03	0.06
3 QPSK 1-14	22.31	22.42	22.13		0.09	0.10	0.28
3 QPSK 8-0	21.39	21.44	21.16	≤ 1	1.01	1.08	1.25
3 QPSK 8-4	21.45	21.37	21.04		0.95	1.15	1.37
3 QPSK 8-7	21.38	21.32	20.95		1.02	1.20	1.46
3 QPSK 15-0	21.39	21.41	21.09	≤ 1	1.01	1.11	1.32
3 16QAM 1-0	21.46	21.43	21.45		0.94	1.09	0.96
3 16QAM 1-7	21.35	21.36	21.37		1.05	1.16	1.04
3 16QAM 1-14	21.29	21.21	21.26	≤ 2	1.11	1.31	1.15
3 16QAM 8-0	20.34	20.28	20.28		2.06	2.24	2.13
3 16QAM 8-4	20.29	20.25	20.14		2.11	2.27	2.27
3 16QAM 8-7	20.23	20.18	19.98		2.17	2.34	2.43
3 16QAM 15-0	20.31	20.23	20.05		2.09	2.29	2.36
Channel	18607	18900	19193		18607	18900	19193
Frequency (MHz)	1850.7	1880	1909.3		1850.7	1880	1909.3
1.4 QPSK 1-0	22.40	22.42	22.26	0	0.00	0.00	0.00
1.4 QPSK 1-2	22.35	22.40	22.19		0.05	0.02	0.07
1.4 QPSK 1-5	22.27	22.37	22.10		0.13	0.05	0.16
1.4 QPSK 3-0	22.14	22.35	22.06		0.26	0.07	0.20
1.4 QPSK 3-1	22.21	22.30	21.95		0.19	0.12	0.31
1.4 QPSK 3-2	22.18	22.25	21.87	≤ 1	0.22	0.17	0.39
1.4 QPSK 6-0	21.36	21.43	20.95		1.04	0.99	1.31
1.4 16QAM 1-0	21.36	21.39	21.30	≤ 1	1.04	1.03	0.96
1.4 16QAM 1-2	21.33	21.34	21.22		1.07	1.08	1.04
1.4 16QAM 1-5	21.28	21.26	21.06		1.12	1.16	1.20
1.4 16QAM 3-0	21.21	21.23	21.12		1.19	1.19	1.14
1.4 16QAM 3-1	21.17	21.18	21.07		1.23	1.24	1.19
1.4 16QAM 3-2	21.14	21.14	21.03	≤ 2	1.26	1.28	1.23
1.4 16QAM 6-0	20.56	20.55	20.16		1.84	1.87	2.10

		LTE Band 4						
BW [MHz]	Mod / RB (Size - Offset)	Average Power. (dBm)			3GPP MPR	MPR Result (dB)		
		Low Ch	Mid Ch	High Ch		Low Ch	Mid Ch	High Ch
Channel		20050	20175	20300		20050	20175	20300
Frequency (MHz)		1720	1732.5	1745		1720	1732.5	1745
20	QPSK 1-0	22.76	22.51	22.83	0	0.00	0.21	0.00
20	QPSK 1-49	22.75	22.64	22.54		0.01	0.08	0.29
20	QPSK 1-99	22.69	22.72	22.45		0.07	0.00	0.38
20	QPSK 50-0	22.10	21.27	21.45		0.66	1.45	1.38
20	QPSK 50-24	22.05	21.28	22.33	≤ 1	0.71	1.44	0.50
20	QPSK 50-49	22.00	21.40	22.30		0.76	1.32	0.53
20	QPSK 100-0	21.98	21.31	21.37		0.78	1.41	1.46
20	16QAM 1-0	22.19	21.54	22.06	≤ 1	0.57	1.18	0.77
20	16QAM 1-49	21.93	21.45	21.68		0.83	1.27	1.15
20	16QAM 1-99	21.70	21.51	21.75		1.06	1.21	1.08
20	16QAM 50-0	20.56	20.25	20.43	≤ 2	2.20	2.47	2.40
20	16QAM 50-24	20.53	20.22	20.40		2.23	2.50	2.43
20	16QAM 50-49	20.50	20.31	20.39		2.26	2.41	2.44
20	16QAM 100-0	20.52	20.30	20.36		2.24	2.42	2.47
Channel		20025	20175	20325		20025	20175	20325
Frequency (MHz)		1717.5	1732.5	1747.5		1717.5	1732.5	1747.5
15	QPSK 1-0	22.75	22.69	22.89	0	0.00	0.18	0.00
15	QPSK 1-37	22.64	22.79	22.63		0.11	0.08	0.26
15	QPSK 1-74	22.73	22.87	22.54		0.02	0.00	0.35
15	QPSK 38-0	21.29	21.41	21.45	≤ 1	1.46	1.46	1.44
15	QPSK 38-18	21.25	21.52	21.40		1.50	1.35	1.49
15	QPSK 38-37	21.25	21.46	21.41		1.50	1.41	1.48
15	QPSK 75-0	21.36	21.41	21.41	≤ 1	1.39	1.46	1.48
15	16QAM 1-0	21.66	21.60	21.92		1.09	1.27	0.97
15	16QAM 1-37	21.47	21.62	21.74		1.28	1.25	1.15
15	16QAM 1-74	21.52	21.65	21.62	≤ 2	1.23	1.22	1.27
15	16QAM 38-0	20.25	20.37	20.45		2.50	2.50	2.44
15	16QAM 38-18	20.42	20.43	20.43		2.33	2.44	2.46
15	16QAM 38-37	20.26	20.50	20.42	≤ 2	2.49	2.37	2.47
15	16QAM 75-0	20.37	20.40	20.40		2.38	2.47	2.49
Channel		20000	20175	20350		20000	20175	20350
Frequency (MHz)		1715	1732.5	1750		1715	1732.5	1750
10	QPSK 1-0	22.85	22.73	22.69	0	0.00	0.07	0.06
10	QPSK 1-24	22.48	22.80	22.50		0.37	0.00	0.25
10	QPSK 1-49	22.36	22.78	22.75		0.49	0.02	0.00
10	QPSK 25-0	21.47	21.32	21.36	≤ 1	1.38	1.48	1.39
10	QPSK 25-12	21.37	21.50	21.27		1.48	1.30	1.48
10	QPSK 25-24	21.36	21.48	21.30		1.49	1.32	1.45
10	QPSK 50-0	21.38	21.33	21.36	≤ 1	1.47	1.47	1.39
10	16QAM 1-0	21.35	21.68	21.65		1.50	1.12	1.10
10	16QAM 1-24	21.45	21.82	21.59		1.40	0.98	1.16
10	16QAM 1-49	21.41	21.69	21.58	≤ 2	1.44	1.11	1.17
10	16QAM 25-0	20.45	20.38	20.36		2.40	2.42	2.39
10	16QAM 25-12	20.37	20.37	20.28		2.48	2.43	2.47
10	16QAM 25-24	20.38	20.33	20.29	≤ 2	2.47	2.47	2.46
10	16QAM 50-0	20.44	20.30	20.25		2.41	2.50	2.50
Channel		19975	20175	20375		19975	20175	20375
Frequency (MHz)		1712.5	1732.5	1752.5		1712.5	1732.5	1752.5
5	QPSK 1-0	22.75	22.69	22.55	0	0.00	0.00	0.00
5	QPSK 1-12	22.33	22.63	22.41		0.42	0.06	0.14
5	QPSK 1-24	22.32	22.58	22.40		0.43	0.11	0.15
5	QPSK 12-0	21.37	21.56	21.46	≤ 1	1.38	1.13	1.09
5	QPSK 12-6	21.25	21.41	21.17		1.50	1.28	1.38
5	QPSK 12-11	21.27	21.54	21.42		1.48	1.15	1.13
5	QPSK 25-0	21.26	21.46	21.41	≤ 1	1.49	1.23	1.14
5	16QAM 1-0	22.30	21.64	21.47		0.45	1.05	1.08
5	16QAM 1-12	21.28	21.62	21.44		1.47	1.07	1.11
5	16QAM 1-24	21.68	21.62	21.43	≤ 2	1.07	1.07	1.12
5	16QAM 12-0	20.34	20.52	20.55		2.41	2.17	2.00
5	16QAM 12-6	20.31	20.40	20.62		2.44	2.29	1.93
5	16QAM 12-11	20.38	20.54	20.54		2.37	2.15	2.01
5	16QAM 25-0	20.31	20.49	20.52		2.44	2.20	2.03



RF Exposure Evaluation Report

Report No. : FA2D2804

Channel	19965	20175	20385		19965	20175	20385
Frequency (MHz)	1711.5	1732.5	1753.5		1711.5	1732.5	1753.5
3 QPSK 1-0	22.55	22.56	22.54	0	0.00	0.18	0.05
3 QPSK 1-7	22.41	22.60	22.59		0.14	0.14	0.00
3 QPSK 1-14	22.32	22.74	22.54		0.23	0.00	0.05
3 QPSK 8-0	21.34	21.38	21.22	≤ 1	1.21	1.36	1.37
3 QPSK 8-4	21.32	21.42	21.26		1.23	1.32	1.33
3 QPSK 8-7	21.22	21.50	21.51		1.33	1.24	1.08
3 QPSK 15-0	21.24	21.32	21.18	≤ 1	1.31	1.42	1.41
3 16QAM 1-0	21.38	21.57	21.37		1.17	1.17	1.22
3 16QAM 1-7	21.49	21.65	21.29		1.06	1.09	1.30
3 16QAM 1-14	21.37	21.71	21.34	≤ 2	1.18	1.03	1.25
3 16QAM 8-0	20.28	21.40	21.22		2.27	1.34	1.37
3 16QAM 8-4	20.40	21.23	21.14		2.15	1.51	1.45
3 16QAM 8-7	20.25	21.22	20.62		2.30	1.52	1.97
3 16QAM 15-0	20.30	20.36	20.25		2.25	2.38	2.34
Channel	19957	20175	20393		19957	20175	20393
Frequency (MHz)	1710.7	1732.5	1754.3		1710.7	1732.5	1754.3
1.4 QPSK 1-0	22.81	22.58	22.60	0	0.12	0.00	0.15
1.4 QPSK 1-2	22.85	22.43	22.75		0.08	0.15	0.00
1.4 QPSK 1-5	22.93	22.56	22.60		0.00	0.02	0.15
1.4 QPSK 3-0	22.78	22.47	22.68		0.15	0.11	0.07
1.4 QPSK 3-1	22.81	22.40	22.45		0.12	0.18	0.30
1.4 QPSK 3-2	22.83	22.42	22.47	≤ 1	0.10	0.16	0.28
1.4 QPSK 6-0	21.64	21.38	21.56		1.29	1.20	1.19
1.4 16QAM 1-0	21.56	21.53	21.66	≤ 1	1.37	1.05	1.09
1.4 16QAM 1-2	21.53	21.45	21.63		1.40	1.13	1.12
1.4 16QAM 1-5	21.46	21.50	21.68		1.47	1.08	1.07
1.4 16QAM 3-0	21.84	21.42	21.47		1.09	1.16	1.28
1.4 16QAM 3-1	21.94	21.40	21.45		0.99	1.18	1.30
1.4 16QAM 3-2	21.81	21.39	21.44	≤ 2	1.12	1.19	1.31
1.4 16QAM 6-0	20.66	20.38	20.54		2.27	2.20	2.21



RF Exposure Evaluation Report

Report No. : FA2D2804

		LTE Band 5						
BW [MHz]	Mod / RB (Size - Offset)	Average Power. (dBm)			3GPP MPR	MPR Result (dB)		
		Low Ch	Mid Ch	High Ch		Low Ch	Mid Ch	High Ch
Channel		20450	20525	20600		20450	20525	20600
Frequency (MHz)		829	836.5	844		829	836.5	844
10	QPSK 1-0	22.71	22.82	22.70	0	0.16	0.00	0.00
10	QPSK 1-24	22.79	22.76	22.63		0.08	0.06	0.07
10	QPSK 1-49	22.87	22.68	22.57		0.00	0.14	0.13
10	QPSK 25-0	21.46	21.70	21.51		1.41	1.12	1.19
10	QPSK 25-12	21.54	21.63	21.44	≤ 1	1.33	1.19	1.26
10	QPSK 25-24	21.61	21.55	21.39		1.26	1.27	1.31
10	QPSK 50-0	21.52	21.60	21.32		1.35	1.22	1.38
10	16QAM 1-0	21.80	21.75	21.75		1.07	1.07	0.95
10	16QAM 1-24	21.85	21.67	21.63	≤ 1	1.02	1.15	1.07
10	16QAM 1-49	21.73	21.62	21.59		1.14	1.20	1.11
10	16QAM 25-0	20.40	20.57	20.61		2.47	2.25	2.09
10	16QAM 25-12	20.50	20.53	20.45	≤ 2	2.37	2.29	2.25
10	16QAM 25-24	20.57	20.49	20.36		2.30	2.33	2.34
10	16QAM 50-0	20.54	20.56	20.29		2.33	2.26	2.41
Channel		20425	20525	20625		20425	20525	20625
Frequency (MHz)		826.5	836.5	846.5		826.5	836.5	846.5
5	QPSK 1-0	22.47	22.77	22.62	0	0.05	0.00	0.00
5	QPSK 1-12	22.51	22.72	22.55		0.01	0.05	0.07
5	QPSK 1-24	22.52	22.63	22.49		0.00	0.14	0.13
5	QPSK 12-0	21.58	21.68	21.46		0.94	1.09	1.16
5	QPSK 12-6	21.49	21.63	21.42	≤ 1	1.03	1.14	1.20
5	QPSK 12-11	21.57	21.59	21.37		0.95	1.18	1.25
5	QPSK 25-0	21.28	21.60	21.26		1.24	1.17	1.36
5	16QAM 1-0	21.47	21.70	21.69	≤ 1	1.05	1.07	0.93
5	16QAM 1-12	21.16	21.63	21.62		1.36	1.14	1.00
5	16QAM 1-24	21.56	21.58	21.57		0.96	1.19	1.05
5	16QAM 12-0	20.58	20.61	20.54	≤ 2	1.94	2.16	2.08
5	16QAM 12-6	20.60	20.56	20.46		1.92	2.21	2.16
5	16QAM 12-11	20.63	20.48	20.41		1.89	2.29	2.21
5	16QAM 25-0	20.35	20.52	20.34		2.17	2.25	2.28
Channel		20415	20525	20635		20415	20525	20635
Frequency (MHz)		825.5	836.5	847.5		825.5	836.5	847.5
3	QPSK 1-0	22.51	22.72	22.56	0	0.02	0.00	0.00
3	QPSK 1-7	22.50	22.65	22.53		0.03	0.07	0.03
3	QPSK 1-14	22.53	22.58	22.46		0.00	0.14	0.10
3	QPSK 8-0	21.42	21.68	21.57		1.11	1.04	0.99
3	QPSK 8-4	21.45	21.61	21.53	≤ 1	1.08	1.11	1.03
3	QPSK 8-7	21.42	21.53	21.48		1.11	1.19	1.08
3	QPSK 15-0	21.45	21.65	21.61		1.08	1.07	0.95
3	16QAM 1-0	21.52	21.75	21.47	≤ 1	1.01	0.97	1.09
3	16QAM 1-7	21.74	21.59	21.42		0.79	1.13	1.14
3	16QAM 1-14	21.73	21.50	21.36		0.80	1.22	1.20
3	16QAM 8-0	20.42	20.89	20.54	≤ 2	2.11	1.83	2.02
3	16QAM 8-4	20.44	20.78	20.47		2.09	1.94	2.09
3	16QAM 8-7	20.51	20.73	20.41		2.02	1.99	2.15
3	16QAM 15-0	20.48	20.75	20.58		2.05	1.97	1.98
Channel		20407	20525	20643		20407	20525	20643
Frequency (MHz)		824.7	836.5	848.3		824.7	836.5	848.3
1.4	QPSK 1-0	22.66	22.67	22.53	0	0.00	0.00	0.00
1.4	QPSK 1-2	22.63	22.63	22.46		0.03	0.04	0.07
1.4	QPSK 1-5	22.29	22.59	22.41		0.37	0.08	0.12
1.4	QPSK 3-0	22.63	22.54	22.39		0.03	0.13	0.14
1.4	QPSK 3-1	22.65	22.50	22.34		0.01	0.17	0.19
1.4	QPSK 3-2	22.64	22.43	22.28		0.02	0.24	0.25
1.4	QPSK 6-0	21.57	21.91	21.89	≤ 1	1.09	0.76	0.64
1.4	16QAM 1-0	21.64	21.62	21.61	≤ 1	1.02	1.05	0.92
1.4	16QAM 1-2	21.72	21.56	21.56		0.94	1.11	0.97
1.4	16QAM 1-5	21.82	21.49	21.52		0.84	1.18	1.01
1.4	16QAM 3-0	21.52	21.50	21.43		1.14	1.17	1.10
1.4	16QAM 3-1	21.63	21.45	21.36		1.03	1.22	1.17
1.4	16QAM 3-2	21.53	21.32	21.24		1.13	1.35	1.29
1.4	16QAM 6-0	20.66	20.89	20.84	≤ 2	2.00	1.78	1.69



		LTE Band 17							
BW [MHz]	Mod / RB (Size - Offset)	Average Power. (dBm)			3GPP MPR	MPR Result (dB)			
		Low Ch	Mid Ch	High Ch		Low Ch	Mid Ch	High Ch	
Channel		23780	23790	23800		23780	23790	23800	
Frequency (MHz)		709	710	711		709	710	711	
10	QPSK 1-0	22.31	21.90	21.79	0	0.03	0.21	0.00	
10	QPSK 1-24	22.34	22.11	21.78		0.00	0.00	0.01	
10	QPSK 1-49	22.32	21.79	21.64		0.02	0.32	0.15	
10	QPSK 25-0	20.88	21.11	21.36		1.46	1.00	0.43	
10	QPSK 25-12	20.88	21.44	21.21	≤ 1	1.46	0.67	0.58	
10	QPSK 25-24	21.37	21.14	20.95		0.97	0.97	0.84	
10	QPSK 50-0	20.98	21.01	21.01		1.36	1.10	0.78	
10	16QAM 1-0	21.07	21.19	21.01		1.27	0.92	0.78	
10	16QAM 1-24	21.60	21.27	21.45	≤ 1	0.74	0.84	0.34	
10	16QAM 1-49	21.07	21.02	21.25		1.27	1.09	0.54	
10	16QAM 25-0	19.92	20.07	20.21		2.42	2.04	1.58	
10	16QAM 25-12	20.32	20.37	20.28		2.02	1.74	1.51	
10	16QAM 25-24	20.33	20.17	19.93	≤ 2	2.01	1.94	1.86	
10	16QAM 50-0	20.02	20.09	20.03		2.32	2.02	1.76	
Channel		23755	23790	23825			23755	23790	23825
Frequency (MHz)		706.5	710	713.5			706.5	710	713.5
5	QPSK 1-0	21.73	22.35	22.26	0	0.12	0.16	0.00	
5	QPSK 1-12	21.85	22.45	22.06		0.00	0.06	0.20	
5	QPSK 1-24	21.65	22.51	22.14		0.20	0.00	0.12	
5	QPSK 12-0	20.77	21.60	21.35		1.08	0.91	0.91	
5	QPSK 12-6	20.85	21.54	21.01	≤ 1	1.00	0.97	1.25	
5	QPSK 12-11	21.10	21.67	20.88		0.75	0.84	1.38	
5	QPSK 25-0	20.83	21.48	20.90		1.02	1.03	1.36	
5	16QAM 1-0	20.89	21.27	21.51		0.96	1.24	0.75	
5	16QAM 1-12	21.06	21.35	21.16	≤ 1	0.79	1.16	1.10	
5	16QAM 1-24	21.37	21.49	21.24		0.48	1.02	1.02	
5	16QAM 12-0	19.80	20.60	20.47		2.05	1.91	1.79	
5	16QAM 12-6	19.87	20.55	20.18		1.98	1.96	2.08	
5	16QAM 12-11	20.13	20.57	19.98	≤ 2	1.72	1.94	2.28	
5	16QAM 25-0	19.91	20.38	19.90		1.94	2.13	2.36	



Channel	Frequency	Ant. Chain	2.4GHz 802.11b RF Power (dBm)			
			DSSS Data Rate			
			1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	1	17.23	17.16	17.11	17.04
CH 06	2437 MHz	1	16.92	16.87	16.75	16.65
CH 11	2462 MHz	1	17.64	17.21	17.18	17.12
CH 01	2412 MHz	2	16.15	16.12	16.08	15.98
CH 06	2437 MHz	2	15.62	15.42	15.38	15.19
CH 11	2462 MHz	2	15.57	15.44	15.36	15.21

Channel	Frequency	Ant. Chain	2.4GHz 802.11g RF Power (dBm)							
			OFDM Data Rate							
			6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 01	2412 MHz	1	14.60	14.59	14.53	14.32	14.22	13.95	13.73	13.66
CH 06	2437 MHz	1	14.59	14.53	14.46	14.25	14.17	13.89	13.70	13.67
CH 11	2462 MHz	1	15.23	15.10	15.12	14.87	14.77	14.52	14.30	14.26
CH 01	2412 MHz	2	14.32	14.29	14.19	14.00	13.92	13.68	13.25	13.37
CH 06	2437 MHz	2	14.03	13.98	13.93	13.79	13.65	13.43	13.31	13.10
CH 11	2462 MHz	2	14.20	14.09	13.96	13.86	13.78	13.51	13.31	13.18



Channel	Frequency	Ant. Chain	2.4GHz 802.11n HT-20 RF Power (dBm)							
			OFDM Data Rate							
			MCS=0	MCS=1	MCS=2	MCS=3	MCS=4	MCS=5	MCS=6	MCS=7
			6.5 Mbps	13 Mbps	19.5 Mbps	26 Mbps	39 Mbps	52 Mbps	58.5 Mbps	65 Mbps
CH 01	2412 MHz	1	11.48	11.37	11.25	11.15	10.96	10.78	10.75	10.62
CH 06	2437 MHz	1	11.96	11.88	11.81	11.73	11.56	11.34	11.25	11.16
CH 11	2462 MHz	1	12.54	12.45	12.25	12.21	12.08	11.96	11.89	11.74
CH 01	2412 MHz	2	11.43	11.25	11.19	11.07	10.82	10.68	10.69	10.63
CH 06	2437 MHz	2	11.3	11.21	11.18	11.28	11.01	10.88	10.78	10.68
CH 11	2462 MHz	2	12.03	11.88	11.82	11.71	11.49	11.31	11.24	11.16
Channel	Frequency	Ant. Chain	MCS=8	MCS=9	MCS=10	MCS=11	MCS=12	MCS=13	MCS=14	MCS=15
			13 Mbps	26 Mbps	39 Mbps	52 Mbps	78 Mbps	104 Mbps	117 Mbps	130 Mbps
CH 01	2412 MHz	1+2(1)	11.83	11.63	11.44	11.26	11.08	10.84	10.79	11.78
		1+2(2)	11.51	11.22	11.05	10.89	10.61	10.43	10.38	10.29
		1+2	14.68	14.44	14.26	14.09	13.86	13.65	13.60	14.11
CH 06	2437 MHz	1+2(1)	12.27	11.95	11.78	11.64	11.33	11.09	10.85	10.81
		1+2(2)	11.52	11.32	11.15	10.95	10.66	10.48	10.32	10.33
		1+2	14.92	14.66	14.49	14.32	14.02	13.81	13.60	13.59
CH 11	2462 MHz	1+2(1)	12.87	12.52	12.25	12.12	11.91	11.65	11.64	11.49
		1+2(2)	12.05	11.77	11.62	11.39	11.16	10.89	10.91	10.73
		1+2	15.49	15.17	14.96	14.78	14.56	14.30	14.30	14.14

Channel	Frequency	Ant. Chain	2.4GHz 802.11n HT-40 RF Power (dBm)							
			OFDM Data Rate							
			MCS=0	MCS=1	MCS=2	MCS=3	MCS=4	MCS=5	MCS=6	MCS=7
			13.5 Mbps	27 Mbps	40.5 Mbps	54 Mbps	81 Mbps	108 Mbps	121.5 Mbps	135 Mbps
CH 03	2422 MHz	1	8.96	8.77	8.51	8.71	8.21	7.98	7.89	7.79
CH 06	2437 MHz	1	9.25	8.99	8.87	8.68	8.4	8.25	8.14	8.04
CH 09	2452 MHz	1	10.6	10.38	10.15	10.05	9.75	9.58	9.53	9.36
CH 03	2422 MHz	2	10.12	9.97	9.75	9.67	9.41	9.16	8.98	9.02
CH 06	2437 MHz	2	9.78	9.62	9.32	9.26	8.96	8.64	8.55	8.44
CH 09	2452 MHz	2	9.63	9.22	9.24	8.85	8.61	8.53	8.35	8.08
Channel	Frequency	Ant. Chain	MCS=8	MCS=9	MCS=10	MCS=11	MCS=12	MCS=13	MCS=14	MCS=15
			27 Mbps	54 Mbps	81 Mbps	108 Mbps	162 Mbps	216 Mbps	243 Mbps	270 Mbps
CH 03	2422 MHz	1+2(1)	8.85	8.61	8.36	8.16	7.76	7.69	7.63	7.54
		1+2(2)	9.86	9.75	9.52	9.34	9.12	8.55	8.45	8.33
		1+2	12.39	12.23	11.99	11.80	11.50	11.15	11.07	10.96
CH 06	2437 MHz	1+2(1)	9.14	8.79	8.28	7.98	7.65	7.45	7.43	7.38
		1+2(2)	9.61	8.35	8.82	8.83	8.45	8.12	8.05	7.96
		1+2	12.39	11.59	11.57	11.44	11.08	10.81	10.76	10.69
CH 09	2452 MHz	1+2(1)	10.41	10.12	9.68	9.43	9.03	8.81	8.76	8.65
		1+2(2)	9.39	8.89	8.63	8.42	8.23	7.97	7.94	7.83
		1+2	12.94	12.56	12.20	11.96	11.66	11.42	11.38	11.27

6. Radio Frequency Radiation Exposure Evaluation

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna

For this device, the calculation is as follows:

WWAN Operating frequency ≤ 1.5GHz

Function	Freq. (MHz)	Antenna Gain (dBi)	Burst-Based Time-Average Power (dBm)	Source-Based Time-Average Power (mW)	Source-Based Time-Average EIRP (mW)	Source-Based Time-Average ERP (mW)	Calculated RF Exposure (mW/cm ²)	Limit (mW/cm ²)
GPRS 850 (1 Tx slot)	824.20	0.60	23.50	223.87	257.04	156.68	0.05	0.55
WCDMA Band 5	826.40	0.60	23.50	223.87	257.04	156.68	0.05	0.55
LTE Band 5	829.00	0.60	23.00	199.53	229.09	139.64	0.05	0.55
LTE Band 17	710.00	1.30	23.00	199.53	269.15	164.06	0.05	0.47

WWAN Operating frequency > 1.5GHz

Function	Freq. (MHz)	Antenna Gain (dBi)	Burst-Based Time-Average Power (dBm)	Source-Based Time-Average Power (mW)	Source-Based Time-Average EIRP (mW)	Calculated RF Exposure (mW/cm ²)	Limit (mW/cm ²)
GPRS 1900 (1 Tx slot)	1850.20	2.20	20.00	100.00	165.96	0.03	1.00
WCDMA Band 2	1852.40	2.20	23.00	199.53	331.13	0.07	1.00
LTE Band 2	1850.70	2.20	23.00	199.53	331.13	0.07	1.00
LTE Band 4	1710.70	2.40	23.00	199.53	346.74	0.07	1.00

**WLAN (Chain 1) Operating Frequency > 1.5GHz**

Function	Freq. (MHz)	Antenna Gain (dBi)	Burst-Based Time-Average Power (dBm)	Source-Based Time-Average Power (mW)	Source-Based Time-Average EIRP (mW)	Calculated RF Exposure (mW/cm ²)	Limit (mW/cm ²)
WiFi 2.4G (802.11b)	2412.00	2.40	18.00	63.10	109.65	0.02	1.00
WiFi 2.4G (802.11g)	2412.00	2.40	16.00	39.81	69.18	0.01	1.00
WiFi 2.4G (802.11n-HT20)	2412.00	2.40	13.00	19.95	34.67	0.01	1.00
WiFi 2.4G (802.11n-HT40)	2422.00	2.40	13.00	19.95	34.67	0.01	1.00

WLAN (Chain 2) Operating Frequency > 1.5GHz

Function	Freq. (MHz)	Antenna Gain (dBi)	Burst-Based Time-Average Power (dBm)	Source-Based Time-Average Power (mW)	Source-Based Time-Average EIRP (mW)	Calculated RF Exposure (mW/cm ²)	Limit (mW/cm ²)
WiFi 2.4G (802.11b)	2412.00	2.40	18.00	63.10	109.65	0.02	1.00
WiFi 2.4G (802.11g)	2412.00	2.40	16.00	39.81	69.18	0.01	1.00
WiFi 2.4G (802.11n-HT20)	2412.00	2.40	13.00	19.95	34.67	0.01	1.00
WiFi 2.4G (802.11n-HT40)	2422.00	2.40	13.00	19.95	34.67	0.01	1.00

WLAN (Chain 1+2) Operating Frequency > 1.5GHz

Function	Freq. (MHz)	Antenna Gain (dBi)	Burst-Based Time-Average Power (dBm)	Source-Based Time-Average Power (mW)	Source-Based Time-Average EIRP (mW)	Calculated RF Exposure (mW/cm ²)	Limit (mW/cm ²)
WiFi 2.4G (802.11n-HT20)	2412.00	2.40	13.00	19.95	34.67	0.01	1.00
WiFi 2.4G (802.11n-HT40)	2422.00	2.40	13.00	19.95	34.67	0.01	1.00

Note:

According to "Maximum RF average output power among production units" to evaluate radiation exposure.

**For Simultaneous Transmission Consideration**

WWAN Max. Power Density (mW/cm ²)	WLAN Max. Power Density (mW/cm ²)	WWAN Freq. Dependent MPE Limits (mW/cm ²)	WLAN Freq. Dependent MPE Limits (mW/cm ²)	Sum of the MPE Ratios	MPE Ratio Limit
0.07	0.02	1.00	1.00	0.09	1

Conclusion:

Per part 2.1091(c), EUT source-based time-averaged ERP < 1.5W for RF operating frequency ≤ 1.5GHz, EUT source-based time-averaged EIRP < 3W for RF operating frequency > 1.5GHz, routine evaluation of MPE is not required; MPE calculation is sufficient to show compliance. The MPE calculation results indicate that the EUT complies with the RF exposure limit of FCC OET Bulletin 65 Supplement C (Edition 01-01).