

Report No.: EI/2010/80006 Issue Date: Sep. 23, 2010

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# ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

# UN-INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART B CERTIFICATION REQUIREMENT

OF

**Product Name:** TG03

**FCC ID: YUW-TU12-J01** 

**Report No.:** EJ/2010/80006

**Issue Date: Sep. 23, 2010** 

FCC Rule Part: Part 15 B, Class B

Filing Type: Certification

Prepared for: Fujitsu Toshiba Mobile Communications Limited

1-1, Kamiodanaka 4, Nakahara, Kawasaki,

211-8588, JAPAN

Prepared by: SGS Taiwan Ltd.

**Electronics & Communication Laboratory** 

No. 134, Wu Kung Rd., Wuku Industrial Zone,

Taipei County, Taiwan.



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### VERIFICATION OF COMPLIANCE

**Applicant:** Fujitsu Toshiba Mobile Communications Limited

1-1, Kamiodanaka 4, Nakahara, Kawasaki, 211-8588, JAPAN

**Product Name:** TG03

**FCC ID:** YUW-TU12-J01 **File Number:** EI/2010/80006

**Date of test:** Aug. 05, 2010 ~ Sep. 21, 2010

**Date of EUT Received:** Aug. 05, 2010

# We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15B, Class B. The test results of this report relate only to the tested sample identified in this report.

Test By:

Nick Lin / Engineer

Prepared By:

Tiffany Kao / Clerk

Approved By:

Approved By:

Nick Lin / Engineer

Date: Sep. 23, 2010

Sep. 23, 2010

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Arno Hsieh / Asst. Supervisor

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# Version

Version No.	Date	Description
00	Sep. 23, 2010	Initial creation of document

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# **GENERAL INFORMATION**

1.1 Product Description

1.11 Toddet Description			
Product Name:	TG03		
FCC ID:	YUW-TU12-J01		
Data Cable (USB)	Model: HPC1579-010910(Type B), Supplier: Hoshiden		
Power Supply:	3.9 Vdc re-chargeable battery		
	Battery: Model No.: UF424261F-HMN, Supplier: Sanyo		

### **GSM and WCDMA:**

Cellular Phone Standards Frequency Range and Power	Operating Frequency	Rated Power	
	GSM/GPRS 850 Class 12	824.2 MHz– 848.8MHz	33 dBm
	GSM/GPRS 1900 Class 12	1850.2MHz – 1909.8MHz	30 dBm
	EDGE 850 Class 12	824.2 MHz- 848.8MHz	27 dBm
	EDGE 1900 Class 12	1850.2MHz – 1909.8MHz	26 dBm
	WCDMA/HSUPA/HSDPA Band V	826.4MHz -846.6MHz	24 dBm
IMEI:	353861040000133		

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# **Final Amplifier Voltage and Current Information:**

Test Mode	DC voltage (V)	DC current (mA)
GSM 850	3.9Vdc	340
PCS 1900	3.9Vdc	265
EDGE 850	3.9Vdc	205
EDGE 1900	3.9Vdc	180
WCDMA B5	3.9Vdc	535
HSUPA B5	3.9Vdc	530

### WLAN:

Frequency Range & Channel number:	802.11 b/g: 2412 – 2462 MHz
Rated Power:	802.11 b: 15.94 dBm 802.11 g: 21.89 dBm
Modulation type:	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Transmission Rate:	802.11 b: 1/2/5.5/11 Mbps; 802.11 g: 6/9/12/18/24/36/48/54 Mbps
Antenna Designation:	Chip Antenna / Gain: -0.85 dBi

The EUT is compliance with IEEE 802.11 b/g Standard.

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### **Bluetooth:**

Frequency Range:	2402 – 2480MHz
Bluetooth Version:	V2.1 + EDR (GFSK + $\pi$ /4DQPSK + 8DPSK)
Channel number:	79 channels
Transmit Power:	8.52 dBm (Peak)
Modulation type:	Frequency Hopping Spread Spectrum
Antenna Designation:	Chip Antenna / antenna gain: -0.85dBi

The EUT is compliance with Bluetooth 2.1 + EDR Standard.

### **GPS**:

Receiver Frequency	L1 Band, 1575.42MHz
Frequency Conversion oscillator	19.2MHz
Antenna Designation	PIFA Antenna

FeliCa Receive Frequency:	13.56MHz
---------------------------	----------

The FeliCa only support receiving function.

This test report applies for digital full function.

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### 1.2 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: YUW-TU12-J01 filing to comply with Part15 Subpart B, class B of the FCC CFR 47 Rules.

### 1.3 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4 (2003). Radiated testing was performed at an antenna to EUT distance 3 meters.

### 1.4 Test Facility

The measurement facilities used to collect the 3m Radiated Emission and AC power line conducted data are located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 134, Wu Kung Rd., Wuku Industrial Zone, Taipei Country, Taiwan which are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 2003. FCC Registration Number are: 990257 and 236194, Canada Registration Number: 4620A-1

The 10 m Open Area Test Sites located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 29, Pau-Tou-Tsuo Valley Chia-Pau Tsuen, Linkou Hsiang, Taipei county, which is constructed and calibrated to meet the CISPR 22/EN 55022 requirements. SGS Site No. 1(3 &10 meters) and FCC Registration Number: 94644

# 1.5 Special Accessories

Not available for this EUT intended for grant.

### 1.6 Equipment Modifications

Not available for this EUT intended for grant.

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# 2. System Test Configuration

# 2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

### 2.2 EUT Exercise

The EUT was operated in the normal continuous transmitting in below condition:

- 1. Play 1kHz audio through the SHF and Speaker.
- BT link with NB.
- 3. Data link with NB.

### 2.3 Test Procedure

### 2.3.1 Conducted Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. According to the requirements in Section 7 of ANSI C63.4-2003. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode.

#### 2.3.2 Radiated Emissions

The EUT is placed on a turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter(EUT) was rotated through three orthogonal axes according to the requirements in Section 8 of ANSI C63.4-2003.

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### 2.4 Limitation

#### **(1) Conducted Emission**

According to section 15.107(a), Conducted Emission Class B Limits is as following.

Frequency range	Class B Limits dB (uV)		
MHz	Quasi-peak	Average	
0.15 to 0.50	66 to 56	56 to 46	
0.50 to 5	56	46	
5 to 30	60	50	

#### Note

# (2) Radiated Emission

According to section 15.109(a), Radiated Emission Class B Limits is as following:

Frequency (MHz)	Field strength µV/m	Distance (m)	Field strength at 3m dBµV/m
30-88	100	3	40
88-216	150	3	43.5
216-960	200	3	46
Above 960	500	3	54

Remark: 1. Emission level in dBuV/m=20 log (uV/m)

2. Measurement was performed at an antenna to the closed point of EUT distance of 3 meters.

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<sup>1.</sup> The lower limit shall apply at the transition frequencies

<sup>2.</sup> The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.



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# 2.5 Configuration of Tested System

Fig. 2-1 Configuration of Tested System (config 1)

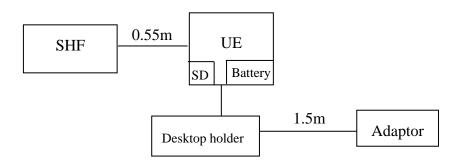


Fig. 2-2 Configuration of Tested System (config 2, 3)

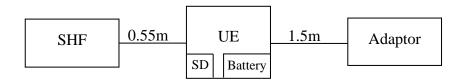
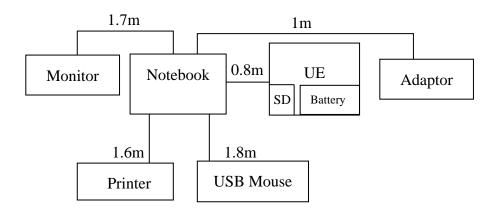


Fig. 2-3 Configuration of Tested System (config 4)



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# Fig. 2-4 Configuration of Tested System (Remote Side)

Radio	
Communication	
Analyzer	

Wireless AP

Notebook

**GPS** Signal Generator

**Table 2-1 Support Equipment Used in Tested System** 

		14010	2-1 Support Equipment		ca System	-	1
Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	FCC ID	Data Cable	Power Cord
1.	Notebook	IBM	T60	L3A9050	N/A	N/A	1.6m Un-shielded
2.	Radio Communication Analyzer	R&S	CMU200	102189	N/A	N/A	Un-shielded
3.	Monitor	HP	HSTND-2F02	CND7122S7B	DoC	1.6 Un-shielded	Un-shielded
4.	USB Mouse	НР	MO19UCA	020506990	N/A	1.8m Un-shielded	N/A
5.	Printer	HP	DJ640C	TH12QE110Y	N/A	1.6m, Un-Shielded	Un-shielded
6.	SHF	Hoshiden	HDH0669-010221(earphone), KRJ0003-010020(mic)	N/A	N/A	0.55m, Un-shielded	N/A
7.	Adaptor	Cosmos HosiDEN	0203PQA	N/A	N/A	N/A	1.5 m Un-shielded,
8.	Data cable (USB)	Hoshiden	HPC1579-010910(Type B	N/A	N/A	0.8m Un-shielded	N/A
9.	Micro SD	SanDisk	2G	N/A	N/A	N/A	N/A
10.	Wireless AP	D-Link	DIR-300	P1DY29A0001 33	KA2DIR3 00B1	Un-Shielded	Un-shielded
11.	GPS Signal Generator	WELNAVI GATE INC.	GS 50	607492	N/A	N/A	N/A
12.	Desktop holder	Eikou / Fujitsu Toshiba	Т02	N/A	N/A	N/A	N/A

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# 3. Summary of Test Results

FCC Rules	<b>Description Of Test</b>	Result
§15.107	Conducted Emission Class B	Compliant
§15.109	Radiated Emission Class B	Compliant

# 4. Description of test modes

The EUT was stayed in normal operation mode.

The data cable was connected to notebook PC and data transferred by program.

Test Plan:

TG	03	Config 1	Config 2	Config 3	Config 4	
	Applicable standard (FCC)		part	15B		
	Accessories	UE	UE	UE	UE	
		+ Battery	+ Battery	+ Battery	+ Battery	
		+ SHF	+ AC Adaptor	+ AC Adaptor	+ Data Cable(Type B)	
		+ Desktop holder	+ SHF	+ SHF		
		+ AC Adaptor				
		Charge	Camera	Music	Data link	
ENI NI-	Decemention	GSM+WLAN + BT	GSM+WLAN +	GSM+WLAN + BT	GSM+WLAN + BT	
EN No.	Description	+ GPS	BT + GPS	+ GPS	+ GPS	
8.2	radiated emission	Chargo mada	Charge + camera	Charge + play	Data link	
0.2	(30M-1GHz)(1-13GHz)	Charge mode	mode	mode	Data IITIK	
8.4	conducted emission (AC Power)	Charge mode	Charge + camera	Charge + play	Data link	
0.4	conducted chilosion (Ac 1 ower)	Charge mode	mode	mode	Data IIIIN	

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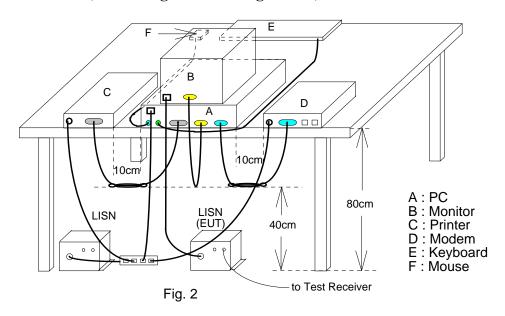
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# 5. Conducted Emissions Test

### **5.1** Measurement Procedure:

- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 3. Repeat above procedures until all frequency measured were complete.

# **5.2** Test SET-UP (Block Diagram of Configuration)



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# **Measurement Equipment Used:**

	Cor	nducted Emission T	est Site		
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.
TYPE		NUMBER	NUMBER	CAL.	
EMI Test Receiver	R&S	ESCS30	828985/004	09/15/2010	09/14/2011
LISN	Rolf-Heine	NNB-2/16Z	99012	02/02/2010	02/01/2011
LISN	FCC	FCC-LISN-50/250-25-2-01	04034	02/02/2010	02/01/2011
Coaxial Cables	N/A	WK CE Cable	N/A	11/28/2009	11/27/2010

#### 5.4 **Measurement Result**

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

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Humidity:

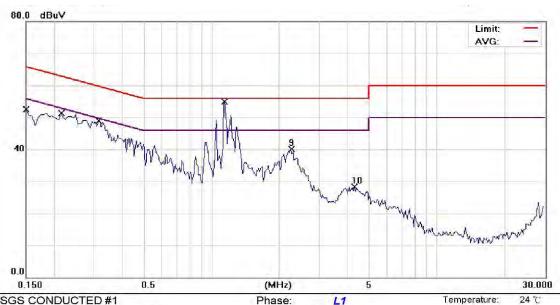
Air Pressure:

56 %

hpa

# AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode:	Config 1	Test Date:	Sep. 20, 2010
		Test By:	Nick



Power:

Distance:

AC 120V/60Hz

Site SGS CONDUCTED #1

Limit: FCC Class B Conduction(QP)

EUT: TG03 M/N: TU12-J01

Note: Charge mode \_config1 IMEI: 353861040004374

No. Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1506	43.15	0.14	43.29	65.97	-22.68	QP	
2	0.1506	27.74	0.14	27.88	55.97	-28.09	AVG	
3	0.2122	42.51	0.12	42.63	63.12	-20.49	QP	
4	0.2122	23.28	0.12	23.40	53.12	-29.72	AVG	
5	0.3158	39.47	0.12	39.59	59.82	-20.23	QP	
6	0.3158	23.43	0.12	23.55	49.82	-26.27	AVG	
7 *	1.1482	51.29	0.13	51.42	56.00	-4.58	QP	
8	1.1482	31.99	0.13	32.12	46.00	-13.88	AVG	
9	2.2500	39.97	0.17	40.14	56.00	-15.86	peak	
10	4.3000	28.04	0.21	28.25	56.00	-27.75	peak	

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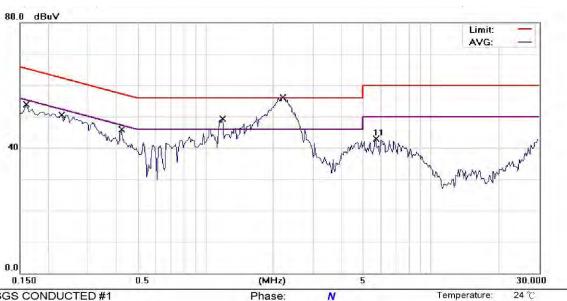
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Humidity:

Air Pressure:

56 %

hpa



Power:

Distance:

AC 120V/60Hz

Site SGS CONDUCTED #1

Limit: FCC Class B Conduction(QP)

EUT: TG03 M/N: TU12-J01

Note: Charge mode \_config1 IMEI: 353861040004374

No. Mk	. Freq.	Reading Level	Factor	Measure- ment	Limit	Over	10.7	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1598	42.63	0.14	42.77	65.47	-22.70	QP	
2	0.1598	22.35	0.14	22.49	55.47	-32.98	AVG	
3	0.2292	42.64	0.13	42.77	62.48	-19.71	QP	
4	0.2292	18.47	0.13	18.60	52.48	-33.88	AVG	
5	0.4238	40.89	0.12	41.01	57.37	-16.36	QP	
6	0.4238	23.09	0.12	23.21	47.37	-24.16	AVG	
7	1.1853	45.17	0.14	45.31	56.00	-10.69	QP	
8	1.1853	23.59	0.14	23.73	46.00	-22.27	AVG	
9 *	2.1993	52.88	0.16	53.04	56.00	-2.96	QP	
10	2.1993	35.57	0.16	35.73	46.00	-10.27	AVG	
11	5.7000	42.59	0.25	42.84	60.00	-17.16	peak	

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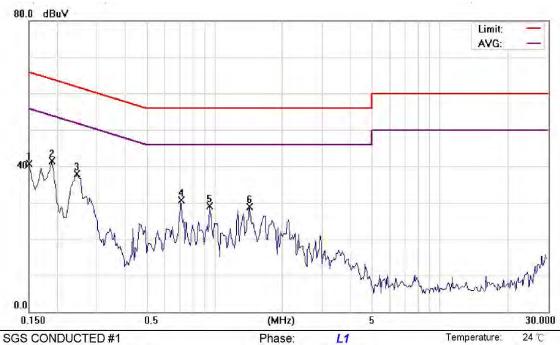
Temperature:

Air Pressure:

Humidity:

# AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode:	Config 2	Test Date:	Sep. 20, 2010
		Test By:	Nick



Power:

Distance:

L1 AC 120V/60Hz

Site SGS CONDUCTED #1

Limit: FCC Class B Conduction(QP)

EUT: TG03

M/N: TU12-J01

Note: Charge + Camera mode \_config2

IMEI: 353861040004374

No.	Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	40.55	0.14	40.69	66.00	-25.31	peak	
2	*	0.1900	41.46	0.12	41.58	64.04	-22.46	peak	
3		0.2450	37.75	0.12	37.87	61.92	-24.05	peak	
4		0.7100	30.59	0.12	30.71	56.00	-25.29	peak	
5		0.9500	28.96	0.12	29.08	56.00	-26.92	peak	
6		1.4300	28.72	0.14	28.86	56.00	-27.14	peak	

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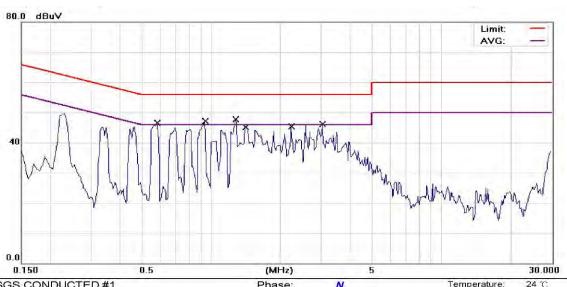
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Temperature:

Air Pressure:

Humidity:



Phase:

Power:

Distance:

AC 120V/60Hz

Site SGS CONDUCTED #1

Limit: FCC Class B Conduction(QP)

EUT: TG03 M/N: TU12-J01

Note: Charge + Camera mode \_config2

IMEI: 353861040004374

No.	Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.5786	39.40	0.12	39.52	56.00	-16.48	QP	
2		0.5786	29.80	0.12	29.92	46.00	-16.08	AVG	
3		0.9370	40.43	0.13	40.56	56.00	-15.44	QP	
4		0.9370	26.39	0.13	26.52	46.00	-19.48	AVG	
5	*	1.2757	41.49	0.14	41.63	56.00	-14.37	QP	
6		1.2757	26.37	0.14	26.51	46.00	-19.49	AVG	
7		1.4070	37.98	0.14	38.12	56.00	-17.88	QP	
8		1.4070	21.45	0.14	21.59	46.00	-24.41	AVG	
9		2.2240	37.23	0.16	37.39	56.00	-18.61	QP	
10		2.2240	21.42	0.16	21.58	46.00	-24.42	AVG	
11		3.0394	37.57	0.18	37.75	56.00	-18.25	QP	
12		3.0394	20.59	0.18	20.77	46.00	-25.23	AVG	

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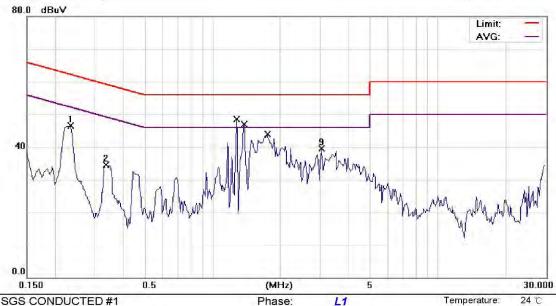
Humidity:

Air Pressure:

hpa

### AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode:	Config 3	Test Date:	Sep. 20, 2010
		Test By:	Nick



Power:

Distance:

AC 120V/60Hz

Site SGS CONDUCTED #1

Limit: FCC Class B Conduction(QP)

EUT: TG03 M/N: TU12-J01

Note: Charge + Play mode \_config3 IMEI: 353861040004374

No.	Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment	
1		0.2350	46.41	0.12	46.53	62.27	-15.74	peak		
2		0.3350	34.44	0.12	34.56	59.33	-24.77	peak		
3	*	1.2802	45.05	0.13	45.18	56.00	-10.82	QP		
4		1.2802	25.26	0.13	25.39	46.00	-20.61	AVG		
5		1.3761	44.22	0.14	44.36	56.00	-11.64	QP		
6		1.3761	26.40	0.14	26.54	46.00	-19.46	AVG		
7		1.7527	40.83	0.15	40.98	56.00	-15.02	QP		
8		1.7527	23.23	0.15	23.38	46.00	-22.62	AVG		
9		3.0500	39.36	0.18	39.54	56.00	-16.46	peak		

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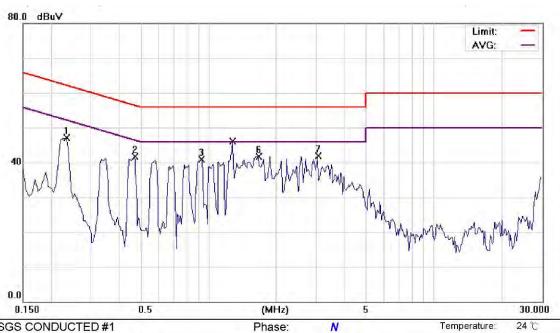
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Temperature:

Air Pressure:

Humidity:

24 °C



AC 120V/60Hz

Site SGS CONDUCTED #1

Limit: FCC Class B Conduction(QP)

EUT: TG03 M/N: TU12-J01

Note: Charge + Play mode \_config3

IMEI: 353861040004374

lo. Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.2350	46.96	0.13	47.09	62.27	-15.18	peak	
2	0.4700	41.54	0.12	41.66	56.51	-14.85	peak	
3	0.9300	40.82	0.13	40.95	56.00	-15.05	peak	
4 *	1.2780	43.62	0.14	43.76	56.00	-12.24	QP	
5	1.2780	27.17	0.14	27.31	46.00	-18.69	AVG	
6	1.6700	41.62	0.15	41.77	56.00	-14.23	peak	
7	3.0600	41.81	0.18	41.99	56.00	-14.01	peak	

Power:

Distance:

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Report No.: EI/2010/80006 **Issue Date: Sep. 23, 2010** 

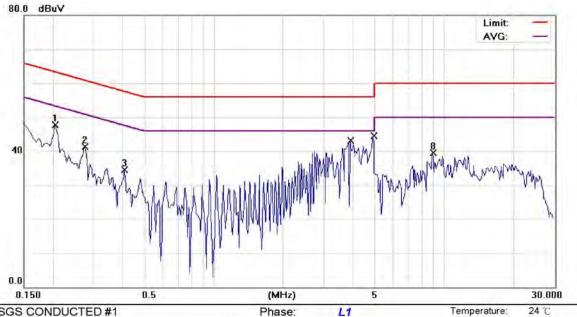
Page: 22 of 50

Humidity:

Air Pressure:

# AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode:	Config 4	Test Date:	Sep. 20, 2010
		Test By:	Nick



L1

AC 120V/60Hz

Site SGS CONDUCTED #1

Limit: FCC Class B Conduction(QP)

EUT: TG03 M/N: TU12-J01

Note: Data Link \_config4

IMEI: 353861040004374

MHz dBuV dB dBuV dBuV dB Detector Comment 1 0.2050 47.60 0.12 47.72 63.41 -15.69 peak
1 0.2050 47.60 0.12 47.72 63.41 -15.69 peak
2 0.2750 41.19 0.12 41.31 60.97 -19.66 peak
3 0.4100 34.46 0.12 34.58 57.65 -23.07 peak
4 3.9112 39.84 0.20 40.04 56.00 -15.96 QP
5 3.9112 27.38 0.20 27.58 46.00 -18.42 AVG
6 * 4.9378 41.60 0.22 41.82 56.00 -14.18 QP
7 4.9378 31.20 0.22 31.42 46.00 -14.58 AVG
8 8.9200 39.08 0.45 39.53 60.00 -20.47 peak

Power:

Distance:

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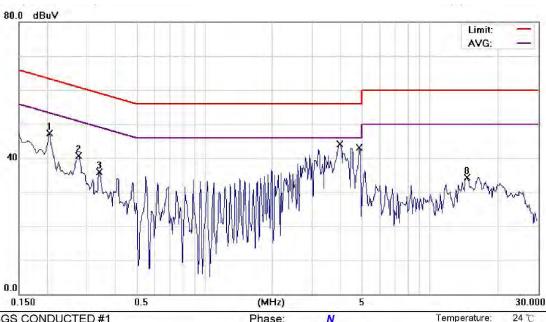
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Power:

Site SGS CONDUCTED #1

Limit: FCC Class B Conduction(QP)

EUT: TG03 M/N: TU12-J01

Note: Data Link \_config4 IMEI: 353861040004374 Phase:

AC 120V/60Hz

Humidity:

Temperature

Distance: Air Pressure: hpa

No. Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.2050	47.17	0.13	47.30	63.41	-16.11	peak	
2	0.2750	40.63	0.13	40.76	60.97	-20.21	peak	
3	0.3400	35.80	0.12	35.92	59.20	-23.28	peak	
4	3.9725	37.87	0.20	38.07	56.00	-17.93	QP	
5	3.9725	27.15	0.20	27.35	46.00	-18.65	AVG	
6	4.8620	30.90	0.22	31.12	56.00	-24.88	QP	
7	4.8620	17.10	0.22	17.32	46.00	-28.68	AVG	
8	14.5400	33.73	0.51	34.24	60.00	-25.76	peak	

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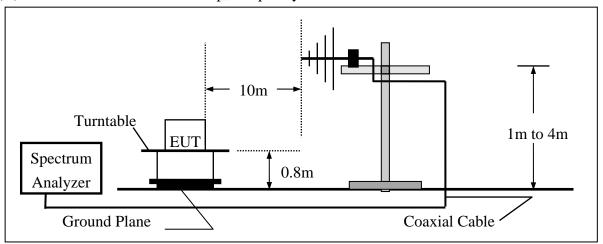
# 6. Radiated Emission Test

### **6.1** Measurement Procedure

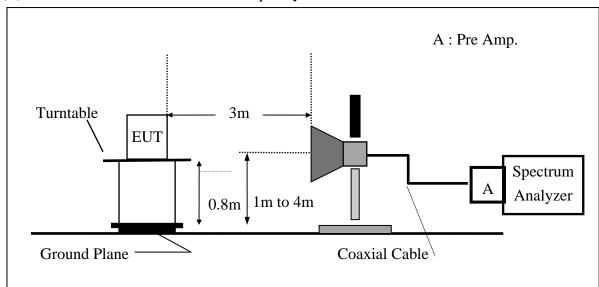
- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 4. Repeat above procedures until all frequency measured were complete.

### **6.2** Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



# (B) Radiated Emission Test Set-UP Frequency 30MHz-40MHz



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# **6.3** Measurement Equipment Used:

	10m Open Area Test Site											
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.							
TYPE		NUMBER	NUMBER	CAL.								
EMI Test Receiver	R&S	ESCI	100335	02/05/2010	02/04/2011							
RF-Amplifier	Agilent	8447D	2944A09469	11/30/2009	11/29/2010							
Broadband Antenna	SCHWAZBECK	VULB9160	9160-3224	03/11/2010	03/02/2011							
Turn Table	HD	DT420	420/542	N/A	N/A							
Antenna Master	HD	MA 240	240/515	N/A	N/A							
Controller	HD	HD 100	100/589	N/A	N/A							
Low Loss Cable	N/A	OS RE Cable	N/A	11/30/2009	11/29/2010							

	9	66 Chamber			
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.
TYPE		NUMBER	NUMBER	CAL.	
Spectrum Analyzer	R&S	FSP 40	100034	02/12/2010	02/11/2011
Bilog Antenna	SCHWAZBECK	VULB9160	3136	11/19/2009	11/18/2010
Horn antenna	SCHWAZBECK	BBHA 9120D	309/320	03/09/2009	03/08/2011
Pre-Amplifier	Agilent	8447D	1937A02834	11/28/2009	11/28/2010
Pre-Amplifier	Agilent	8449B	3008A01973	01/05/2010	01/04/2011
Radio Communication Analyzer	R & S	CMU200	111787	10/31/2008	10/30/2010
DC Block	Agilent	BLK-18	155452	07/05/2010	07/04/2011
Turn Table	HD	DT420	N/A	N.C.R	N.C.R
Antenna Tower	HD	MA240-N	240/657	N.C.R	N.C.R
Controller	HD	HD100	N/A	N.C.R	N.C.R
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-10M	10m	01/05/2010	01/04/2011
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	01/05/2010	01/04/2011
3m Site	SGS	966 chamber	N/A	11/08/2009	11/09/2010

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### 6.4 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

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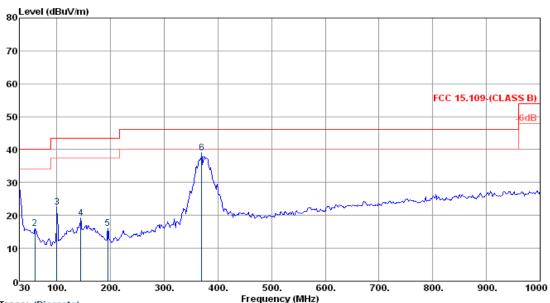
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# 6.5 Measurement Result (below 1G)

Sep. 20, 2010 Test Mode: Config 1 Test Date:

Frequency Range: 30MHz-1GHz Test By: Nick



Trace: (Discrete)

Site RF site 3

Condition : FCC 15.109-(CLASS B) VULB9168(20M-2G)-966 VERTICAL

: (EI-2010-80005-6)Toshiba TG03 Project No.

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

Test Mode : Charge mode \_config1

Temp./Humid. : 24/60 Operator : Nick

: 353861040004374 IMEI

	Freq			Preamp Factor						
	MHz	dBu√	dB/m	dB	dB	dB/m	āBū∀/m	āBū∀/m	dB	
1 2 3 4 5 6	99.84 144.46 194.90	30.55 39.11 31.79 31.69	12.75 10.15 13.77 10.24	27.38 27.08	0.55 0.72 0.95 1.17	-12.66 -15.67	16.03 22.41 19.13 16.02	40.00 43.52 43.52 43.52	-23.97 -21.11 -24.39 -27.50	QP QP QP QP

### Remark:

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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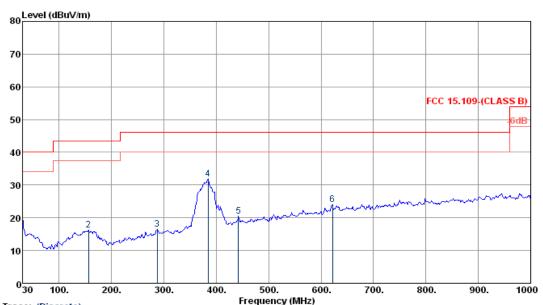


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Config 1 Sep. 20, 2010 Test Mode: Test Date:

Test By: Nick Frequency Range: 30MHz-1GHz



Trace: (Discrete)

: RF site 3

: FCC 15.109-(CLASS B) VULB9168(20M-2G)-966 HORIZONTAL Condition

Project No. : (EI-2010-80005-6)Toshiba\_TG03

: Toshiba Information Systems (UK) Ltd. Applicant

EUT Description: TG03 EUT Model : TU12-J01

Test Mode : Charge mode \_config1

Temp./Humid. : 24/60 Operator : Nick

: 353861040004374 IMEI

	Eroa			Preamp Factor				Limit	Over	Domark
	Freq	Level	ractor	ractor	L055	ractor	Level	Lille	LIMIL	nemark
	MHz	dBu∀	dB/m	dB	dB	dB/m	dBu∀7m	dBu∀/m	d₿	
1 2 3 4 5	156.10 287.05 384.05	28.23 29.30 42.93	14.15 12.54 14.48	27.85 27.26 26.74 27.30 27.60	1.10 1.43 1.74	-12.77 -11.08	16.22 16.53 31.85	43.52 46.02 46.02	-27.30 -29.49 -14.17	QP QP QP
6				27.46						

### Remark:

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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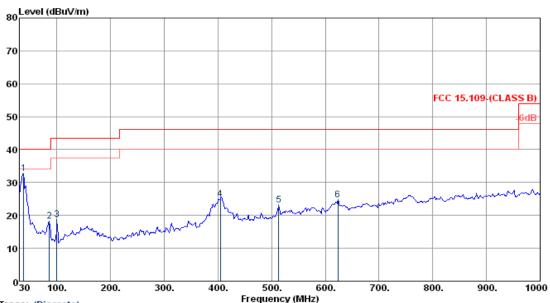


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Config 2 Sep. 20, 2010 Test Mode: Test Date:

Frequency Range: 30MHz-1GHz Test By: Nick



Trace: (Discrete)

Site RF site 3

Condition : FCC 15.109-(CLASS B) VULB9168(20M-2G)-966 VERTICAL

: (EI-2010-80005-6)Toshiba TG03 Project No.

: Toshiba Information Systems (UK) Ltd. Applicant

EUT Description: TG03 EUT Model : TU12-J01

: Charge + Camera mode \_config2 Test Mode

Temp./Humid. : 24/60 Operator : Nick

: 353861040004374 IMEI

	Freq			Preamp Factor					Over Limit	
	MHz	−−dBuV	dB/m	dB	dB	dB/m	āBū₹/m	āBū∀/m	dB	
p 2 3 4 5	86.26 99.84 404.42 513.06	35.83 35.38 35.81 32.07	9.38 10.15 14.84 16.75	27.65 27.57 27.45	0.72 0.72 1.78 1.97	-16.70 -10.83 -8.88	18.28 18.68 24.98 23.19	40.00 43.52 46.02 46.02	-21.72 -24.84 -21.04 -22.83	QP QP QP QP

### Remark:

23456

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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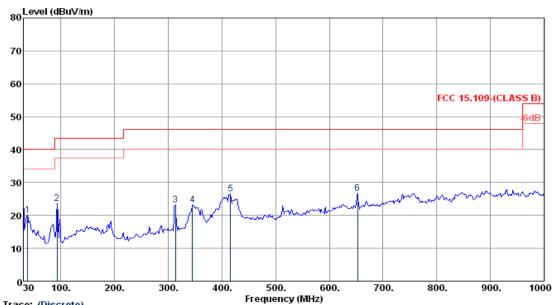


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Config 2 Sep. 20, 2010 Test Mode: Test Date:

Test By: Nick Frequency Range: 30MHz-1GHz



Trace: (Discrete)

: RF site 3 Site

Condition : FCC 15.109-(CLASS B) VULB9168(20M-2G)-966 HORIZONTAL

: (EI-2010-80005-6)Toshiba TG03 Project No.

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

Test Mode : Charge + Camera mode \_config2

Temp./Humid. 24/60 Operator : Nick

IMEI 1040004274

PIET		: 2220	отоновы	45/4						
		Read	Antenna	Preamp	Cable			Limit	Over	
	Freq	Level	Factor	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dB/m	dBu∀/m	dBu∀/m	ā	
1	37.76	33.77	13.73	27.84	0.38	-13.73	20.04	40.00	-19.96	QP
2	93.05	40.70	9.72	27.62	0.72	-17.18	23.52	43.52	-20.00	QP
3	313.24	35.38	13.14	26.80	1.48	-12.18	23.20	46.02	-22.82	QP
4	345.25	34.70	13.74	26.98	1.64	-11.60	23.10	46.02	-22.92	QP
5	416.06	37.07	15.13	27.49	1.78	-10.58	26.49	46.02	-19.53	QP
6 p	652.74	32.62	19.14	27.36	2.25	-5.97	26.65	46.02	-19.37	QP

### Remark:

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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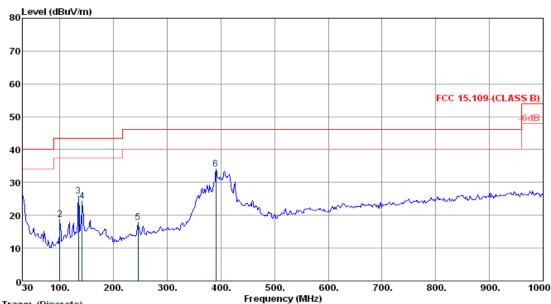


Report No.: EI/2010/80006 Issue Date: Sep. 23, 2010

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Config 3 Sep. 20, 2010 Test Mode: Test Date:

Frequency Range: 30MHz-1GHz Test By: Nick



Trace: (Discrete)

Site : RF site 3

: FCC 15.109-(CLASS B) VULB9168(20M-2G)-966 VERTICAL Condition

: (EI-2010-80005-6)Toshiba\_TG03 Project No.

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03

EUT Model : TU12-J01

Test Mode : Charge + Play mode \_config3

Temp./Humid. : 24/60 Operator : Nick

IMEI 353861040004374

CIL I			0104000							
		Read	Antenna	Preamp	Cable			Limit	Over	
	Freq			Factor					Limit	Remark
-	MHz	−−dBuV	dB/m	dB	dB	dB/m	āBū∀/m	āBū∀7m	dB	
1 2 3 4 5	99.84 134.76	35.40 39.23 37.17 31.75	10.15 13.08 13.51 11.52		0.72 0.95 0.95 1.32	-13.41 -12.95 -13.96	18.70 25.82 24.22 17.79	43.52 43.52 43.52 46.02	-24.82 -17.70 -19.30 -28.23	QP QP QP QP

### Remark:

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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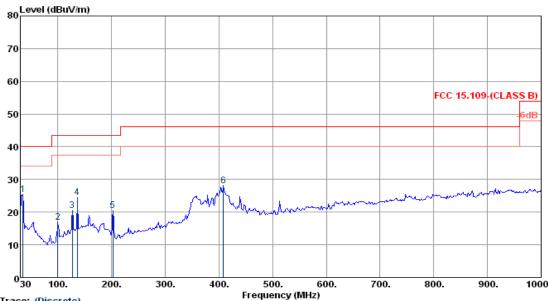


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Config 3 Sep. 20, 2010 Test Mode: Test Date:

Test By: Nick Frequency Range: 30MHz-1GHz



Trace: (Discrete)

Site : RF site 3

Condition : FCC 15.109-(CLASS B) VULB9168(20M-2G)-966 HORIZONTAL

: (EI-2010-80005-6)Toshiba\_TG03 Project No.

Applicant Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

: Charge + Play mode \_config3 Test Mode

Temp./Humid. : 24/60 Operator : Nick

IMEI 353861040004374

LI	Freq	Read		Preamp Factor						Remark
	MHz	−dBuV	─dB/m	d₿	d₿	dB/m	dBu∀/m	dBu∀/m	d₿	
1 r 2 3 4 5	99.84 127.00 135.73 202.66	33.75 34.60 37.83 36.40	10.15 12.57 13.08 9.93	27.49	0.72 0.83 0.95 1.17	-14.09 -13.41 -15.94	17.05 20.51 24.42 20.46	43.52 43.52 43.52 43.52	-26.47 -23.01 -19.10 -23.06	QP QP QP QP

### Remark:

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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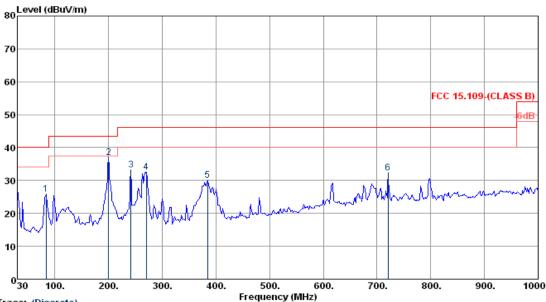


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Config 4 Test Mode: Test Date: Sep. 20, 2010

Test By: Nick Frequency Range: 30MHz-1GHz



Trace: (Discrete)

: RF site 3 Site

: FCC 15.109-(CLASS B) VULB9168(20M-2G)-966 VERTICAL Condition

: (EI-2010-80005-6)Toshiba TG03 Project No.

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

: Data Link \_config4 Test Mode

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

	Freq			Preamp Factor					Over Limit	Remark
	MHz	dBu∀	dB/m	dB	dB	dB/m	dBu∀/m	dBu∀/m	dB	
1 2 3 4 5 6	199.75 241.46 270.56	52.88 47.14 45.76 41.11	9.90 11.47 12.15 14.48	26.82 26.75 27.30	1.17 1.32 1.43 1.74	-15.99 -14.03 -13.17 -11.08	36.89 33.11 32.59 30.03	43.52 46.02 46.02 46.02	-6.63 -12.91 -13.43 -15.99	QP QP QP QP

### Remark:

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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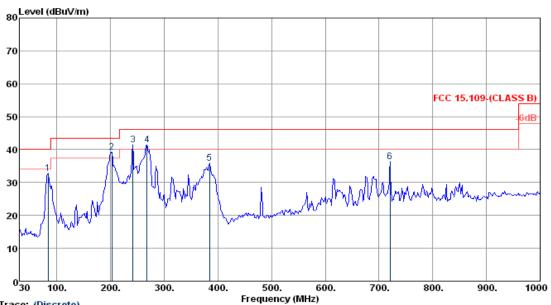


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Config 4 Sep. 20, 2010 Test Mode: Test Date:

Test By: Nick Frequency Range: 30MHz-1GHz



Trace: (Discrete)

: RF site 3 Site

Condition : FCC 15.109-(CLASS B) VULB9168(20M-2G)-966 HORIZONTAL

: (EI-2010-80005-6)Toshiba TG03 Project No.

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

Test Mode : Data Link \_config4

Temp./Humid. : 24/60 Operator : Nick

IMEI 353861040004374

	Freq	Read		Preamp Factor						
	MHz	dBu₹	─dB/m	d₿	dB	─dB/m	āBū∀/m	āBū∀/m	d₿	
1 2 3 4 5 6	202.66 241.46 267.65	55.14 55.53 54.69 46.95	9.93 11.47 12.03 14.48	27.66 27.04 26.82 26.76 27.30	1.17 1.32 1.43 1.74	-15.94 -14.03 -13.30 -11.08	39.20 41.50 41.39 35.87	43.52 46.02 46.02 46.02	-4.32 -4.52 -4.63 -10.15	QP QP QP QP

### Remark:

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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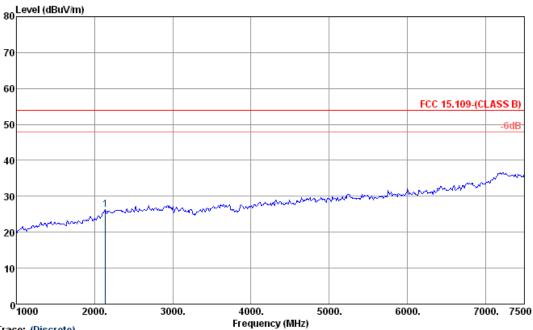


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Test Mode: Config 1 Test Date: Sep. 20, 2010

Frequency Range: 1GHz – 7.5GHz Test By: Nick



Trace: (Discrete)

Site : RF site 3

: FCC 15.109-(CLASS B) BBHA9120D(966) VERTICAL Condition

: (EI-2010-80005-6)Toshiba TG03 Project No.

: Toshiba Information Systems (UK) Ltd. Applicant

EUT Description: TG03 EUT Model : TU12-J01

Test Mode : Charge mode \_config1

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

> ReadAntenna Preamp Cable Limit Freq Level Factor Factor Loss Factor Level Line Limit Remark dB ─dB/m dBuV/m dBuV/m MHz dBuV dB/m ₫B

1 p 2137.50 28.47 27.37 34.00 4.41 -2.22 26.25 54.00 -27.75 Peak

### Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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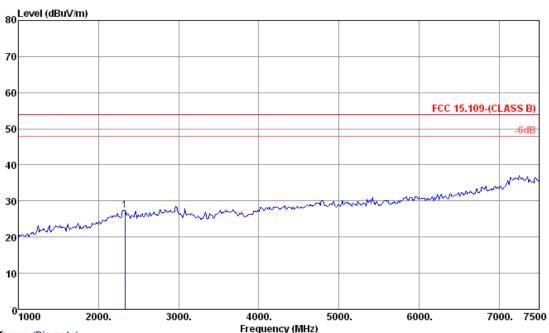


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Sep. 20, 2010 Test Mode: Config 1 Test Date:

Frequency Range: 1GHz – 7.5GHz Test By: Nick



Trace: (Discrete)

: RF site 3 Site

Condition : FCC 15.109-(CLASS B) BBHA9120D(966) HORIZONTAL

Project No. : (EI-2010-80005-6)Toshiba\_TG03

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

: Charge mode \_config1 Test Mode

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

ReadAntenna Preamp Cable Limit Loss Factor Level Limit Remark Freq Level Factor Factor Line MHz dBuV dB/m dB dB/m dBuV/m dBuV/m ďΒ

1 p 2332.50 29.03 27.74 34.05 4.65 -1.66 27.37 54.00 -26.63 Peak

### Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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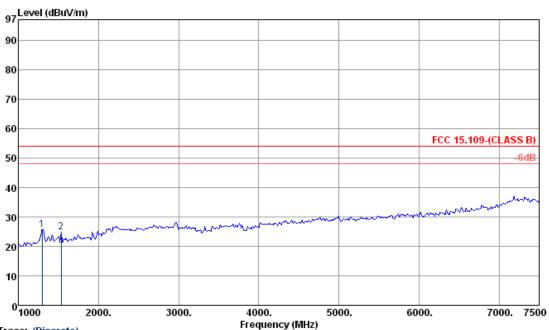


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Test Mode: Config 2 Test Date: Sep. 20, 2010

Frequency Range: 1GHz – 7.5GHz Test By: Nick



Trace: (Discrete)

Site : RF site 3

: FCC 15.109-(CLASS B) BBHA9120D(966) VERTICAL Condition

34.35

Project No. : (EI-2010-80005-6)Toshiba\_TG03

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

Test Mode : Charge + Camera mode \_config2

: 24/60 Temp./Humid. : Nick Operator

IMEI : 353861040004374

1533.00 30.72 24.89

ReadAntenna Preamp Cable 0ver Freq Level Factor Factor Loss Factor Level Limit Remark Line dB dB/m dBuV/m dBuV/m dBuV dB/m ₫Ē ďŘ 3.40

## Remark:

(1) All Readings above 1GHz are Peak and Average measurement as necessary.

3.67

(2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

-5.79

24.93 54.00 -29.07 Peak

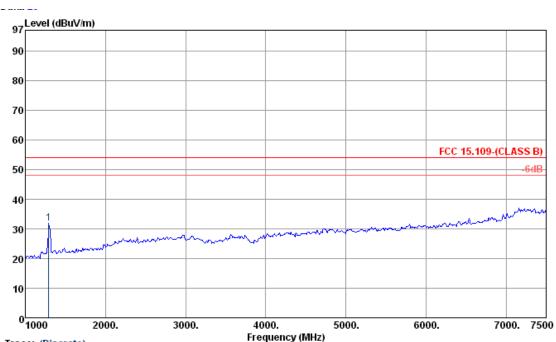


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Test Mode: Config 2 Test Date: Sep. 20, 2010

Frequency Range: 1GHz - 7.5GHz Test By: Nick



Trace: (Discrete)

: RF site 3 Site

Condition : FCC 15.109-(CLASS B) BBHA9120D(966) HORIZONTAL

Project No. : (EI-2010-80005-6)Toshiba TG03

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 : TU12-J01 EUT Model

Test Mode : Charge + Camera mode \_config2

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

> ReadAntenna Preamp Cable Limit Over Freq Level Factor Factor Loss Factor Level Limit Remark dB dB dB/m dBuV/m dBuV/m MHz dBuV dB/m ďΒ

1 p 1292.50 38.10 24.92 34.56 3.37 -6.27 31.83 54.00 -22.17 Peak

# Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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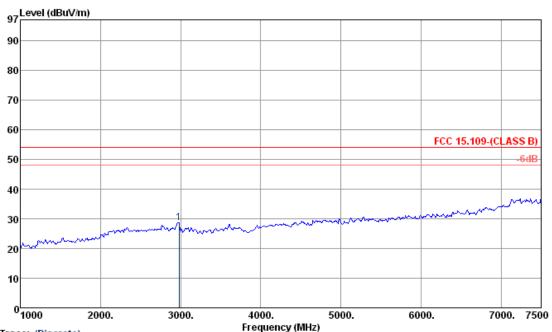


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Sep. 20, 2010 Test Mode: Config 3 Test Date:

Test By: Frequency Range: 1GHz – 7.5GHz Nick



Trace: (Discrete)

Site : RF site 3

: FCC 15.109-(CLASS B) BBHA9120D(966) VERTICAL Condition

Project No. : (EI-2010-80005-6)Toshiba TG03

: Toshiba Information Systems (UK) Ltd. Applicant

EUT Description: TG03 EUT Model : TU12-J01

: Charge + play mode \_config3 Test Mode

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

> ReadAntenna Preamp Cable Limit Freq Level Factor Factor Loss Factor Level Limit Remark dB/m ---dB -dB/m dBu∀/m dBu∀/m dBuV dB MHz

5.38 -0.62 28.73 54.00 -25.27 Peak 2982.50 29.35 28.20 34.20

## Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

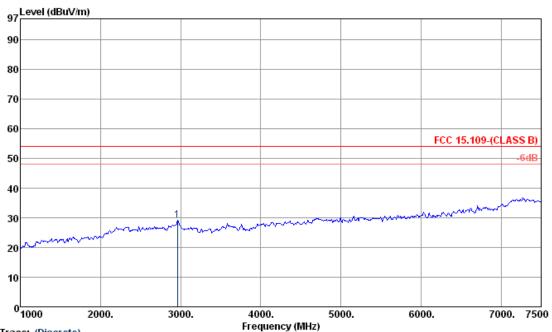


Report No.: EI/2010/80006 Issue Date: Sep. 23, 2010

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Test Mode: Config 3 Test Date: Sep. 20, 2010

Test By: Frequency Range: 1GHz – 7.5GHz Nick



Trace: (Discrete)

Site : RF site 3

: FCC 15.109-(CLASS B) BBHA9120D(966) HORIZONTAL Condition

: (EI-2010-80005-6)Toshiba\_TG03 Project No.

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

Test Mode : Charge + play mode \_config3

Temp./Humid. : 24/60 Operator : Nick

: 353861040004374 IMEI

ReadAntenna Preamp Cable Loss Factor Level Limit Remark Freq Level Factor Factor Line MHz dBuV dB/m dB dB dB/m dBuV/m dBuV/m dΒ

1 p 2963.00 30.01 28.13 34.20 5.25 -0.82 29.19 54.00 -24.81 Peak

### Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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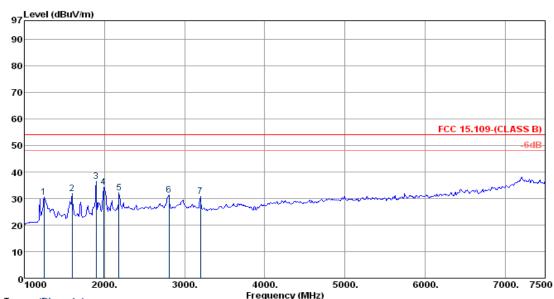


Report No.: EI/2010/80006 Issue Date: Sep. 23, 2010

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Config 4 Sep. 20, 2010 Test Mode: Test Date:

Frequency Range: 1GHz – 7.5GHz Test By: Nick



Trace: (Discrete)

: RF site 3 Site

: FCC 15.109-(CLASS B) BBHA9120D(966) VERTICAL Condition

: (EI-2010-80005-6)Toshiba TG03 Project No.

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

Test Mode : Data link \_config4

Temp./Humid. : 24/60 Operator : Nick

: 353861040004374 IMEI

	Freq			Preamp Factor				Limit Line	Over Limit	Remark
-	MHz	dBu₹	dB/m	d₿	dB	dB/m	āBū∀/m	āBūV∕m	dB	
1 2 3 p 4 5 6 7	1247.00 1598.00 1897.00 1988.00 2183.00 2807.00 3197.00	37.18 37.55 40.96 38.34 34.07 32.55 31.15	24.69 24.86 25.35 25.80 27.72 27.90 28.21	34.58 34.31 34.05 33.97 34.01 34.16 34.14	4.14	-5.70 -4.56 -3.92 -1.85 -1.18	30.64 31.85 36.40 34.42 32.22 31.37 30.74	54.00 54.00 54.00 54.00	-23.36 -22.15 -17.60 -19.58 -21.78 -22.63 -23.26	Peak Peak Peak Peak Peak Peak

## Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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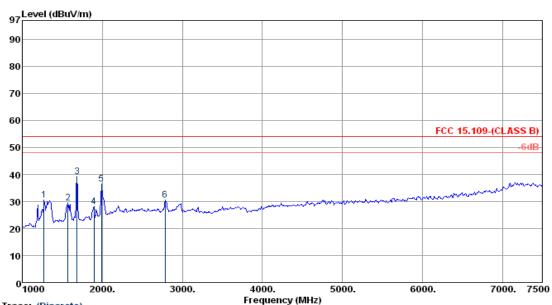


Report No.: EI/2010/80006 Issue Date: Sep. 23, 2010

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Sep. 20, 2010 Test Mode: Config 4 Test Date:

Frequency Range: 1GHz – 7.5GHz Test By: Nick



Trace: (Discrete)

: RF site 3 Site

Condition : FCC 15.109-(CLASS B) BBHA9120D(966) HORIZONTAL

: (EI-2010-80005-6)Toshiba\_TG03 Project No.

: Toshiba Information Systems (UK) Ltd. Applicant

EUT Description: TG03 EUT Model : TU12-J01

Test Mode : Data link \_config4

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

	Freq			Preamp Factor					Over Limit		
-	MHz	dBu₹	dB/m	dB	dB	dB/m	āBū₹/m	āBūV∕m	dB		
2 3 p 4 5	1273.00 1572.00 1682.50 1897.00 1988.00 2787.50	35.32 44.89 32.72 40.38	24.87 24.72 25.35 25.80	34.22 34.05 33.97	3.72 3.90 4.14 4.25	-6.39 -5.74 -5.60 -4.56 -3.92 -1.18	29.58 39.29 28.16 36.46	54.00 54.00 54.00 54.00	-24.42 -14.71 -25.84 -17.54	Peak <mark>Peak</mark> Peak Peak	

### Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

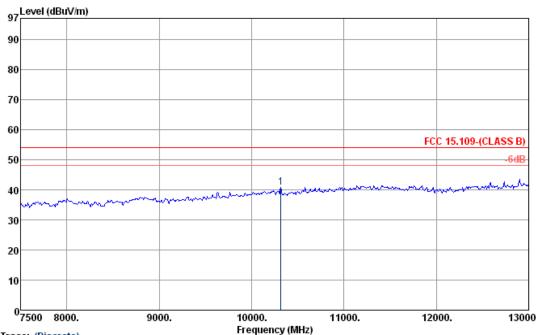


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Test Mode: Config 1 Test Date: Sep. 20, 2010

Frequency Range: 7.5GHz – 13GHz Test By: Nick



Trace: (Discrete)

: RF site 3 Site

: FCC 15.109-(CLASS B) BBHA9120D(966) VERTICAL Condition

: (EI-2010-80005-6)Toshiba TG03 Project No.

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

Test Mode : Charge mode \_config1

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

> ReadAntenna Preamp Cable Limit Over Freq Level Factor Factor Loss Factor Level Line Limit Remark dΒ MHz dBu∀ dB/m dΒ dB7m dBuV7m dBuV7m

1 p 10316.00 25.29 38.67 33.82 10.66 15.51 40.80 54.00 -13.20 Peak

## Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

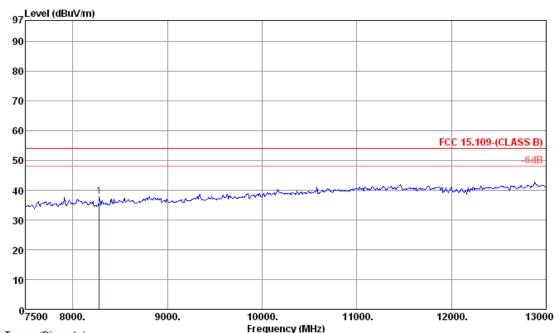


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Test Mode: Config 1 Test Date: Sep. 20, 2010

Frequency Range: 7.5GHz – 13GHz Test By: Nick



Trace: (Discrete)

Site : RF site 3

Condition : FCC 15.109-(CLASS B) BBHA9120D(966) HORIZONTAL

Project No. : (EI-2010-80005-6)Toshiba\_TG03

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

: Charge mode \_config1 Test Mode

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

ReadAntenna Preamp Cable Limit Loss Factor Level Limit Remark Freq Level Factor Factor Line MHz dBuV dB/m dB dB/m dBuV/m dBuV/m ďΒ dB

1 p 8281.00 26.46 36.68 34.80 9.40 11.28 37.74 54.00 -16.26 Peak

### Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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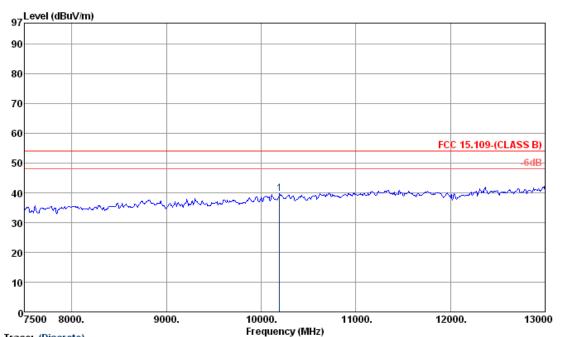


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Test Mode: Config 2 Test Date: Sep. 20, 2010

Frequency Range: 7.5GHz – 13GHz Test By: Nick



Trace: (Discrete)

Site : RF site 3

: FCC 15.109-(CLASS B) BBHA9120D(966) VERTICAL Condition

: (EI-2010-80005-6)Toshiba\_TG03 Project No.

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

Test Mode : Charge + Camera mode config2

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

> ReadAntenna Preamp Cable Limit 0ver Freq Level Factor Factor Loss Factor Level Line Limit Remark dB dB/m dBuV/m dBuV/m ----dB dB/m dBuV

1 p 10195.00 24.67 38.47 33.94 10.58 15.11 39.78 54.00 -14.22 Peak

## Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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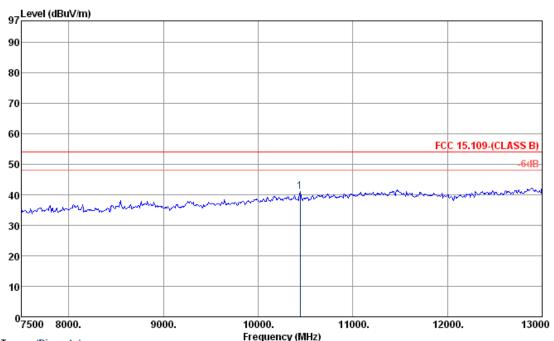


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Test Mode: Config 2 Test Date: Sep. 20, 2010

Frequency Range: 7.5GHz – 13GHz Test By: Nick



Trace: (Discrete)

Site : RF site 3

: FCC 15.109-(CLASS B) BBHA9120D(966) HORIZONTAL Condition

: (EI-2010-80005-6)Toshiba TG03 Project No.

: Toshiba Information Systems (UK) Ltd. Applicant

EUT Description: TG03 : TU12-J01 EUT Model

Test Mode : Charge + Camera mode \_config2

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

> ReadAntenna Preamp Cable Limit 0ver Limit Remark Freq Level Factor Factor Loss Factor Level Line

dB/m dB dB/m dBuV/m dBuV/m MHz dBuV dΒ

1 p 10442.50 25.00 38.88 33.66 10.75 15.97 40.97 54.00 -13.03 Peak

# Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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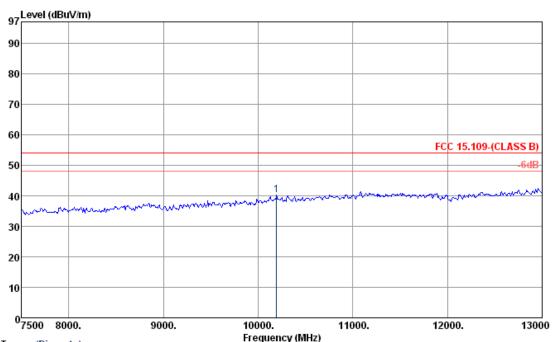


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Sep. 20, 2010 Test Mode: Config 3 Test Date:

Frequency Range: 7.5GHz – 13GHz Test By: Nick



Trace: (Discrete)

: RF site 3 Site

: FCC 15.109-(CLASS B) BBHA9120D(966) VERTICAL Condition

: (EI-2010-80005-6)Toshiba\_TG03 Project No.

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 : TU12-J01 EUT Model

Test Mode : Charge + play mode \_config3

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

ReadAntenna Preamp Cable Freq Level Factor Factor Loss Factor Level Line Limit Remark MHz dBuV dB/m dB dB dB/m dBuV/m dBuV/m dΒ

1 p 10195.00 25.25 38.47 33.94 10.58 15.11 40.36 54.00 -13.64 Peak

#### Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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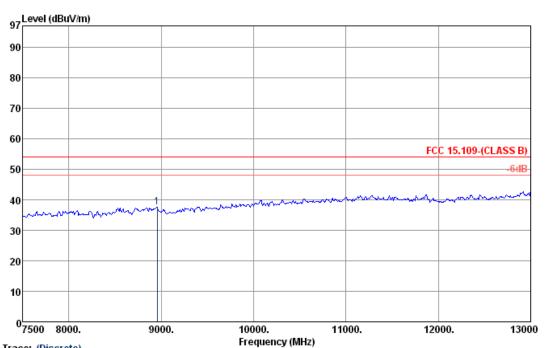


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Test Mode: Config 3 Test Date: Sep. 20, 2010

Frequency Range: 7.5GHz – 13GHz Test By: Nick



Trace: (Discrete)

Site : RF site 3

: FCC 15.109-(CLASS B) BBHA9120D(966) HORIZONTAL Condition

: (EI-2010-80005-6)Toshiba TG03 Project No.

: Toshiba Information Systems (UK) Ltd. Applicant

EUT Description: TG03 : TU12-J01 EUT Model

Test Mode : Charge + play mode \_config3

: 24/60 Temp./Humid. Operator : Nick

IMEI : 353861040004374

> ReadAntenna Preamp Cable Limit Over Freq Level Factor Factor Loss Factor Level Line Limit Remark dB/m dBuV/m dBuV/m MHz dBuV dB/m dΒ dΒ

1 p 8957.50 24.86 37.44 34.54 9.90 12.80 37.66 54.00 -16.34 Peak

# Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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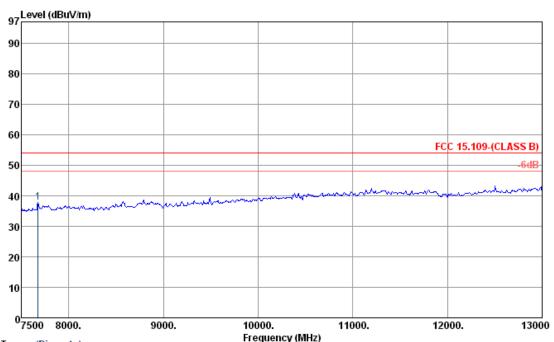


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Sep. 20, 2010 Test Mode: Config 4 Test Date:

Frequency Range: 7.5GHz – 13GHz Test By: Nick



Trace: (Discrete)

: RF site 3 Site

: FCC 15.109-(CLASS B) BBHA9120D(966) VERTICAL Condition

: (EI-2010-80005-6)Toshiba\_TG03 Project No.

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 : TU12-J01 EUT Model

Test Mode : Data link \_config4

: 24/60 Temp./Humid. Operator : Nick

IMEI : 353861040004374

> ReadAntenna Preamp Cable Loss Factor Level Freq Level Factor Factor Line Limit Remark

MHz dBuV dB/m dB dB dB/m dBuV/m dBuV/m dΒ

9.00 10.64 37.80 54.00 -16.20 Peak 1 p 7676.00 27.16 36.48 34.84

#### Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

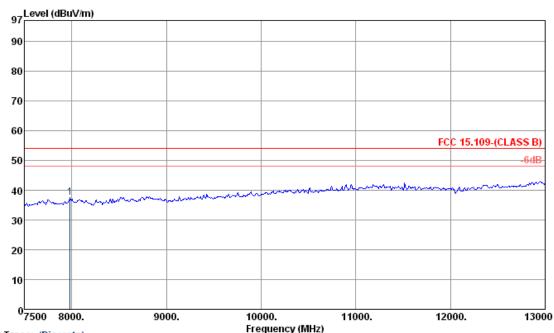


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Test Mode: Config 4 Test Date: Sep. 120, 2010

Frequency Range: 7.5GHz – 13GHz Test By: Nick



Trace: (Discrete)

: RF site 3 Site

Condition : FCC 15.109-(CLASS B) BBHA9120D(966) HORIZONTAL

Project No. : (EI-2010-80005-6)Toshiba\_TG03

Applicant : Toshiba Information Systems (UK) Ltd.

EUT Description: TG03 EUT Model : TU12-J01

: Data link \_config4 Test Mode

Temp./Humid. : 24/60 Operator : Nick

IMEI : 353861040004374

ReadAntenna Preamp Cable Limit Loss Factor Level Limit Remark Freq Level Factor Factor Line MHz dBuV dB/m dB dB/m dBuV/m dBuV/m ďΒ dB

1 p 7984.00 26.16 36.99 34.90 9.21 11.30 37.46 54.00 -16.54 Peak

### Remark:

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 13GHz was 1MHz

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