

**REPORT ON THE CERTIFICATION TESTING OF A
TEKELEK EUROPE
TEK 561
WITH RESPECT TO
THE FCC RULES CFR 47, PART 15.249 July 2008
INTENTIONAL RADIATOR SPECIFICATION**

TEST REPORT NO: 9F2412WUS1
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TEKELEK EUROPE
TEK 561
WITH RESPECT TO
THE FCC RULES CFR 47, PART 15.249 July 2008
INTENTIONAL RADIATOR SPECIFICATION**

TRaC
testing regulatory and compliance

TEST DATE: 18th – 19th August 2009



TESTED BY: _____ D WINSTANLEY

APPROVED BY: _____ J CHARTERS
RADIO PRODUCT
MANAGER

DATE: 7th September 2009 _____

Distribution:

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1. TEKELEK EUROPE
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The results herein relate only to the sample tested. Full results are contained in the relevant works order file.

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 Notes:			
1. Component failure during test	YES NO	[] [X]	
2. If Yes, details of failure:			
3. The facilities used for the testing of the product contain in this report are FCC Listed.			
4. The contents of the attached applicants declarations and other supplied information are not covered by the scope of this laboratory's UKAS or FCC accreditations' and is provided in good faith.			

CERTIFICATE OF CONFORMITY & COMPLIANCE

FCC IDENTITY: S6T-561

PURPOSE OF TEST: Certification

TEST SPECIFICATION: FCC RULES CFR 47, Part 15.249 July 2008

TEST RESULT: Compliant to Specification

EQUIPMENT UNDER TEST: TEK 561

ITU: EMISSION CODE: 509k6F1D

EQUIPMENT TYPE: Short Range Device

PRODUCT USE: Liquid Level Gauge

CARRIER EMISSION: 26.9 mV/m @ 3m

ANTENNA TYPE: Integral

ALTERNATIVE ANTENNA: Not Applicable

FREQUENCY OF OPERATION: 914.5MHz

CHANNEL SPACING: Not Applicable, Wideband

NUMBER OF CHANNELS: 1

FREQUENCY GENERATION: SAW Resonator Crystal Synthesiser

MODULATION METHOD: Amplitude Digital Angle

POWER SOURCE(s): 3.6Vdc

TEST DATE(s): 18th - 19th August 2009

APPLICANT: Tekelek Europe

ADDRESS: Unit 118
Shannon
Co Clare
Ireland

TESTED BY: _____ D WINSTANLEY

APPROVED BY: _____ J CHARTERS
RADIO
PRODUCT
MANAGER

APPLICANT'S SUMMARY

EQUIPMENT UNDER TEST (EUT): TEK 561

EQUIPMENT TYPE: Short Range Device

PURPOSE OF TEST: Certification

TEST SPECIFICATION(s): FCC RULES CFR 47, Part 15.249 July 2008

TEST RESULT: COMPLIANT Yes
No

APPLICANT'S CATEGORY: MANUFACTURER
IMPORTER
DISTRIBUTOR
TEST HOUSE
AGENT

APPLICANT'S CONTACT PERSON(s): Mr M Callanan

E-mail address: martin.callanan@tekelek.ie

APPLICANT: Tekelek Europe

ADDRESS: Unit 118
Shannon
Co Clare
Ireland

TEL: +365 (0) 61 471 511

EUT(s) COUNTRY OF ORIGIN: Ireland

TEST LABORATORY: TRaC Telecoms & Radio, Up Holland

UKAS ACCREDITATION No: 0971

TEST DATE(s) 18th – 19th August 2009

TEST REPORT No: 9F2412WUS1

EQUIPMENT TEST / EXAMINATIONS REQUIRED

1.	TEST/EXAMINATION	RULE PART	DETECTOR	APPLICABILITY
	Intentional Emission Frequency:	15.249(a)	Peak	Yes
	Intentional Emission Field Strength:	15.249(a)	Quasi Peak	Yes
	Intentional Emission Band Occupancy:	15.249(a)	Peak	Yes
	Intentional Emission ERP (mW):	N/A	-	-
	Spurious Emissions – Conducted:	N/A	-	-
	Spurious Emissions – Radiated <1000MHz:	15.209	Quasi Peak	Yes
	Spurious Emissions – Radiated >1000MHz:	15.209 15.249(d)	Average	Yes
	Maximum Frequency of Search:	15.33	-	Yes
	Antenna Arrangements Integral:	15.203	-	Yes
	Antenna Arrangements External Connector:	15.204	-	Yes
	Restricted Bands	15.205	-	Yes
	Extrapolation Factor	15.31(f)	-	Yes

- 2. Product Use: Liquid Level Gauge
- 3. Emission Designator: 509k9F1D
- 4. Duty Cycle: 15%
- 5. Transmitter bit or pulse rate and level: bps
- 6. Temperatures: Ambient (Tnom) 24°C
- 7. Supply Voltages: Vnom +3.6Vdc
 Note: Vnom voltages are as stated above unless otherwise shown on the test report page
- 8. Equipment Category:

Single channel	<input checked="" type="checkbox"/>
Two channel	<input type="checkbox"/>
Multi-channel	<input type="checkbox"/>
- 9. Channel spacing:

Narrowband	<input type="checkbox"/>
Wideband	<input checked="" type="checkbox"/>

TRANSMITTER TESTS

TRANSMITTER SPURIOUS EMISSIONS – RADIATED – PART 15.209

Ambient temperature = 23°C(<1GHz) 3m measurements <1GHz [X]
 Relative humidity = 48% (<1GHz), 3m measurements >1GHz [X]
 Conditions = Open Area Test Site (OATS) 3m extrapolated from 1m []
 Supply voltage = +3.6Vdc

Bottom Channel	FREQ. (MHz)	MEAS Rx (dBµV)	CABLE LOSS (dB)	ANT FACT. (dB/m)	PRE AMP (dB)	FIELD ST'GH (dBµV/m)	EXTRAP FACT (dB)	FIELD ST'GH (µV/m)	LIMIT (µV/m)
0.009MHz - 0.49MHz									Note 8
0.49MHz - 1.705MHz									Note 8
1.705MHz - 30MHz									Note 8
30MHz - 88MHz									Note 8
88MHz - 216MHz									Note 8
216MHz - 960MHz									Note 8
960MHz - 1GHz									Note 8
1GHz - 25GHz	2743.435	52.99	1.8	29.1	36.3	47.59	-	239.60	500
	4572.596	53.04	2.2	32.8	36.3	51.74	-	386.36	500
	5487.064	40.04	2.4	34.7	36.0	41.14	-	114.02	500
	6401.660	48.60	2.4	35.0	36.3	49.70	-	305.49	500
	8230.596	41.33	3.0	37.0	36.5	44.83	-	174.98	500
Limits	0.009 MHz to 0.49 MHz		2400/f(kHz) µV/m @ 300m						
	0.49 MHz to 1.705 MHz		24000/f(kHz) µV/m @ 30m						
	1.705MHz to 30MHz		30µV/m @ 30m						
	30MHz to 88MHz		100µV/m @ 3m						
	88MHz to 216MHz		150µV/m @ 3m						
	216MHz to 960MHz		200µV/m @ 3m						
	960MHz to 1GHz		500µV/m @ 3m						
	1GHz to 25GHz		500µV/m @ 3m						

- Notes:**
- Results quoted are extrapolated as indicated.
 - Emissions were searched to: (x) 1000MHz inclusive, as per Part 15.33a.
 - Receiver detector >1GHz = CISPR, Quasi-Peak, 120kHz bandwidth.
 - Receiver detector >1GHz = Average, 1MHz resolution bandwidth.
 - New batteries used for battery powered products.
 - See Annex E for Emissions Graph(s).
 - EUT Pulsed at maximum rate in normal operation, Ton 75ms, Tframe 500 ms.
 - Emissions not within 20 dB of the limit are not recorded.

- Test Method:**
- As per Radio – Noise Emissions, ANSI C63.4: 2003.
 - Measuring distances as Notes 1 to 4 above.
 - EUT 0.8 metre above ground plane.
 - Emissions maximised by rotation of EUT, on an automatic turntable.
 Raising and lowering the receiver antenna between 1m & 4m.
 Horizontal and vertical polarisations, of the receive antenna.
 EUT orientation in three orthogonal planes.
 Maximum results recorded.

The test equipment used for the Transmitter Spurious Emissions – Radiated – Part 15.209 tests is shown overleaf:

TYPE OF EQUIPMENT	MAKER/SUPPLIER	MODEL No	SERIAL No	TRL No	EQUIPMENT USED
RADIO COMMUNICATIONS ANALYSER	R & S	CMTA 52	894715 / 003	05	
LOOP ANTENNA	R & S	HFH2	881058-53	07	
ENVIRONMENTAL CHAMBER (temp)	SHARETREE	TCC125 - 815P	CS 203	11	
HORN ANTENNA	EMCO	3115	9010 - 3580	138	X
HORN ANTENNA	EMCO	3115	9010 - 3581	139	
RF SIGNAL GEN	MARCONI	2042	119388 / 080	176	
TEMPERATURE INDICATOR	FLUKE	52 Series II	74700044	426	
SPECTRUM ANALYSER	ANRITSU	MS2665C	MT26089	479	
RF SIGNAL GEN	AGILENT	8341B	2819A02239	552	
PRE AMPLIFIER	AGILENT	8449B	3008A016	572	X
RECEIVER	R & S	ESHS 10	830051/001	UH03	
RECEIVER	R & S	ESVS 10	825892/003	UH04	
RANGE 1	TRL	3 METRE	N/A	UH06	X
MULTIMETER	AVOmeter	M3004	M3270006	UH41	
BILOG ANTENNA	CHASE	CBL6112	2129	UH93	X
POWER SUPPLY	THANDOR	PL320QMD	044749	UH100	
OSCILLOSCOPE	TEKTRONIX	TDS520B	B020491	UH122	
POWER METER	MARCONI	6960B	237036/001	UH132	
RECEIVER	R & S	ESVS 10	841431/014	UH186	X
RECEIVER	R & S	ESHS 10	841429/012	UH187	
BILOG ANTENNA	YORK	CBL611/A	1618	UH191	
500W AUDIO AMPLIFIER	PRO POWER	STA-162	688200474	UH196	
POWER SENSOR	MARCONI	6920	1564	UH228	
SPECTRUM ANALYSER	R & S	FSU	200034	UH281	X
RF SIGNAL GEN	HP	83630B	3722A00588	UH340	

TRANSMITTER TESTS

TRANSMITTER INTENTIONAL EMISSION – RADIATED – Part 15.249 July 2008

Ambient temperature	=	23°C(<1GHz),	3m measurements @ fc	[X]
Relative humidity	=	48%(<1GHz),	10m measurements @ fc	[]
Conditions	=	Open Area Test Site (OATS)	30m measurements @ fc	[]
Supply voltage	=	+3.6Vdc	30m extrapolated from 3m	[]
Channel number	=	1	30m extrapolated from 10m	[]

FREQ. (MHz)	MEASUREMENT Rx. READING (dBµV)	CABLE LOSS (dB)	ANT FACTOR (dB/m)	PRE AMP (dB)	FIELD STRENGTH (dBµV/m)	FIELD STRENGTH (mV/m)
914.5	63.6	4.7	20.3	-	88.6	26.9
Limit value @ fc			50 (mV/m)			
Band occupancy @ -20 dBc			f lower		f higher	
			914.2660256 MHz		914.775641 MHz	

See spectrum analyser plot – Annex F

- Notes:**
- 1 Results quoted are extrapolated as indicated
 - 2 Receiver detector @ fc = Quasi Peak 120kHz bandwidth
 - 3 When battery powered the EUT was powered with new batteries
 - 4 EUT Pulsed at maximum rate in normal operation, Ton 75ms, Tframe 500 ms.

- Test Method:**
- 1 As per Radio – Noise Emissions, ANSI C63.4: 2003
 - 2 Measuring distances 3m
 - 3 EUT 0.8 metre above ground plane
 - 4 Emissions maximised by rotation of EUT, on an automatic turntable.
Raising and lowering the receiver antenna between 1m & 4m.
Horizontal and vertical polarisations, of the receive antenna.
EUT orientation in three orthogonal planes.
Maximum results recorded

The test equipment used for the Transmitter Intentional Emission – Radiated – Part 15.249 July 2008 tests is shown overleaf:

TYPE OF EQUIPMENT	MAKER/SUPPLIER	MODEL No	SERIAL No	TRL No	EQUIPMENT USED
RADIO COMMUNICATIONS ANALYSER	R & S	CMTA 52	894715 / 003	05	
LOOP ANTENNA	R & S	HFH2	881058-53	07	
ENVIRONMENTAL CHAMBER (temp)	SHARETREE	TCC125 - 815P	CS 203	11	
AE, DRG HORN, 1GHz - 18GHz	EMCO	3115	9010 - 3580	138	
AE, DRG HORN, 1GHz - 18GHz	EMCO	3115	9010 - 3581	139	
RF SIGNAL GEN	MARCONI	2042	119388 / 080	176	
TEMPERATURE INDICATOR	FLUKE	52 Series II	74700044	426	
SPECTRUM ANALYSER	ANRITSU	MS2665C	MT26089	479	
RF SIGNAL GEN	AGILENT	8341B	2819A02239	552	
PRE AMPLIFIER	AGILENT	8449B	3008A016	572	
RECEIVER	R & S	ESHS 10	830051/001	UH03	
RECEIVER	R & S	ESVS 10	825892/003	UH04	
RANGE 1	TRL	3 METRE	N/A	UH06	X
MULTIMETER	AVOmeter	M3004	M3270006	UH41	
BILOG ANTENNA	CHASE	CBL6112	2129	UH93	X
POWER SUPPLY	THANDOR	PL320QMD	044749	UH100	
OSCILLOSCOPE	TEKTRONIX	TDS520B	B020491	UH122	
POWER METER	MARCONI	6960B	237036/001	UH132	
RECEIVER	R & S	ESVS 10	841431/014	UH186	X
RECEIVER	R & S	ESHS 10	841429/012	UH187	
BILOG ANTENNA	YORK	CBL611/A	1618	UH191	
500W AUDIO AMPLIFIER	PRO POWER	STA-162	688200474	UH196	
POWER SENSOR	MARCONI	6920	1564	UH228	
SPECTRUM ANALYSER	R & S	FSU	200034	UH281	
RF SIGNAL GEN	HP	83630B	3722A00588	UH340	

RECEIVER TESTS

RECEIVER SPURIOUS EMISSIONS – RADIATED – PART 15.109

Ambient temperature	=	24°C(<1GHz)	3m measurements <1GHz	[X]
Relative humidity	=	48 (<1GHz),	3m measurements >1GHz	[X]
Conditions	=	Open Area Test Site (OATS)	3m extrapolated from 1m	[]
Supply voltage	=	+3.6Vdc		

Bottom Channel	FREQ. (MHz)	MEAS Rx (dBμV)	CABLE LOSS (dB)	ANT FACT. (dB/m)	PRE AMP (dB)	FIELD ST'GH (dBμV/m)	EXTRAP FACT (dB)	FIELD ST'GH (μV/m)	LIMIT (μV/m)
0.009MHz - 0.49MHz									Note 7
0.49MHz - 1.705MHz									Note 7
1.705MHz - 30MHz									Note 7
30MHz - 88MHz									Note 7
88MHz - 216MHz									Note 7
216MHz - 960MHz									Note 7
960MHz - 1GHz									Note 7
1GHz - 16.3GHz									Note 7
Limits	0.009 MHz to 0.49 MHz		2400/f(kHz) μV/m @ 300m						
	0.49 MHz to 1.705 MHz		24000/f(kHz) μV/m @ 30m						
	1.705MHz to 30MHz		30μV/m @ 30m						
	30MHz to 88MHz		100μV/m @ 3m						
	88MHz to 216MHz		150μV/m @ 3m						
	216MHz to 960MHz		200μV/m @ 3m						
	960MHz to 1GHz		500μV/m @ 3m						
	1GHz to 16.3GHz		500μV/m @ 3m						

Notes:

- 1 Results quoted are extrapolated as indicated.
- 2 Emissions were searched to: (x) 1000MHz inclusive, as per Part 15.33a.
- 3 Receiver detector >1GHz = CISPR, Quasi-Peak, 120kHz bandwidth.
- 4 Receiver detector >1GHz = Average, 1MHz resolution bandwidth.
- 5 New batteries used for battery powered products.
- 6 See Annex G for Emissions Graph(s).
- 7 Emission not within 20 dB of the limit are not recorded.

Test Method:

- 1 As per Radio – Noise Emissions, ANSI C63.4: 2003
- 2 Measuring distances as Notes 1 to 4 above
- 3 EUT 0.8 metre above ground plane
- 4 Emissions maximised by rotation of EUT, on an automatic turntable.
Raising and lowering the receiver antenna between 1m & 4m.
Horizontal and vertical polarisations, of the receive antenna.
EUT orientation in three orthogonal planes.
Maximum results recorded.

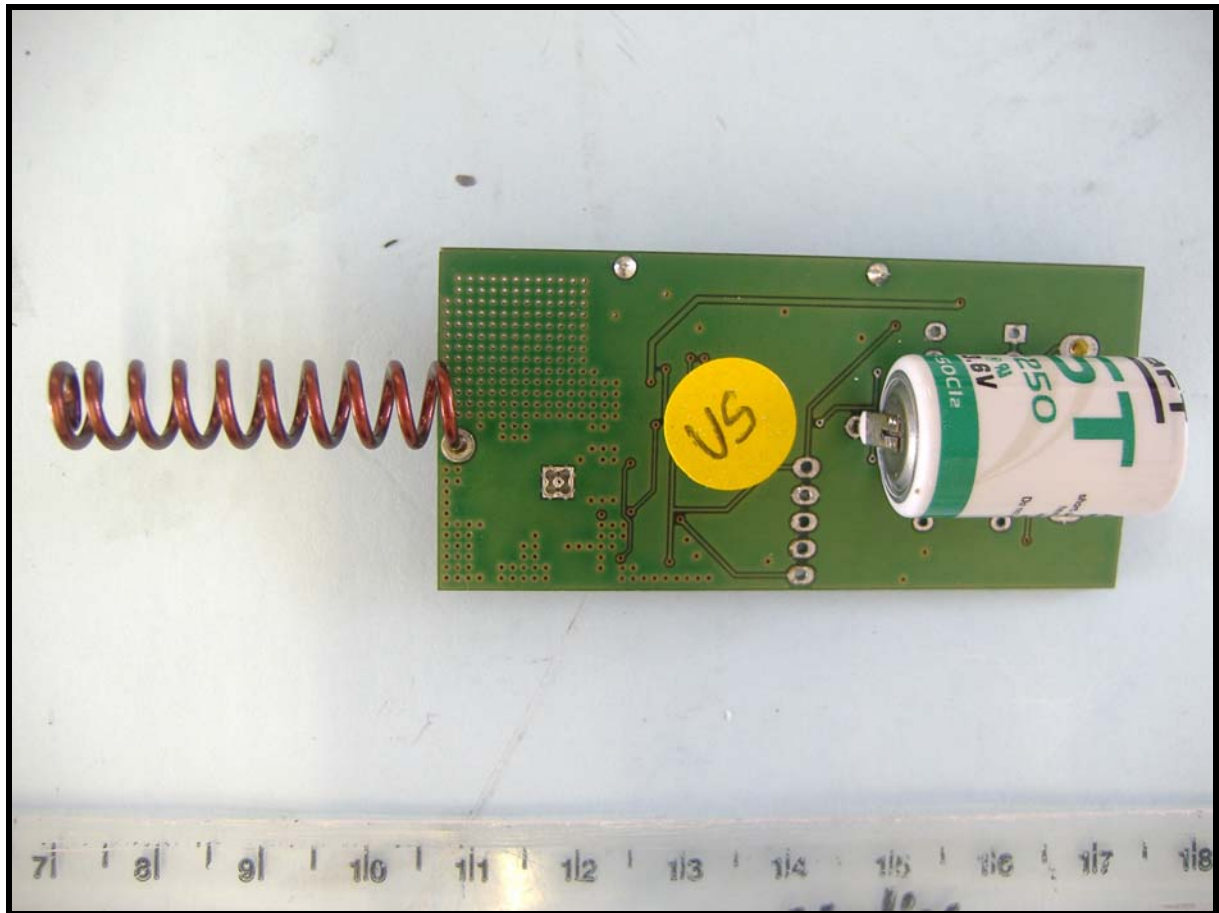
The test equipment used for the Transmitter Spurious Emissions – Radiated – Part 15.209 tests is shown overleaf:

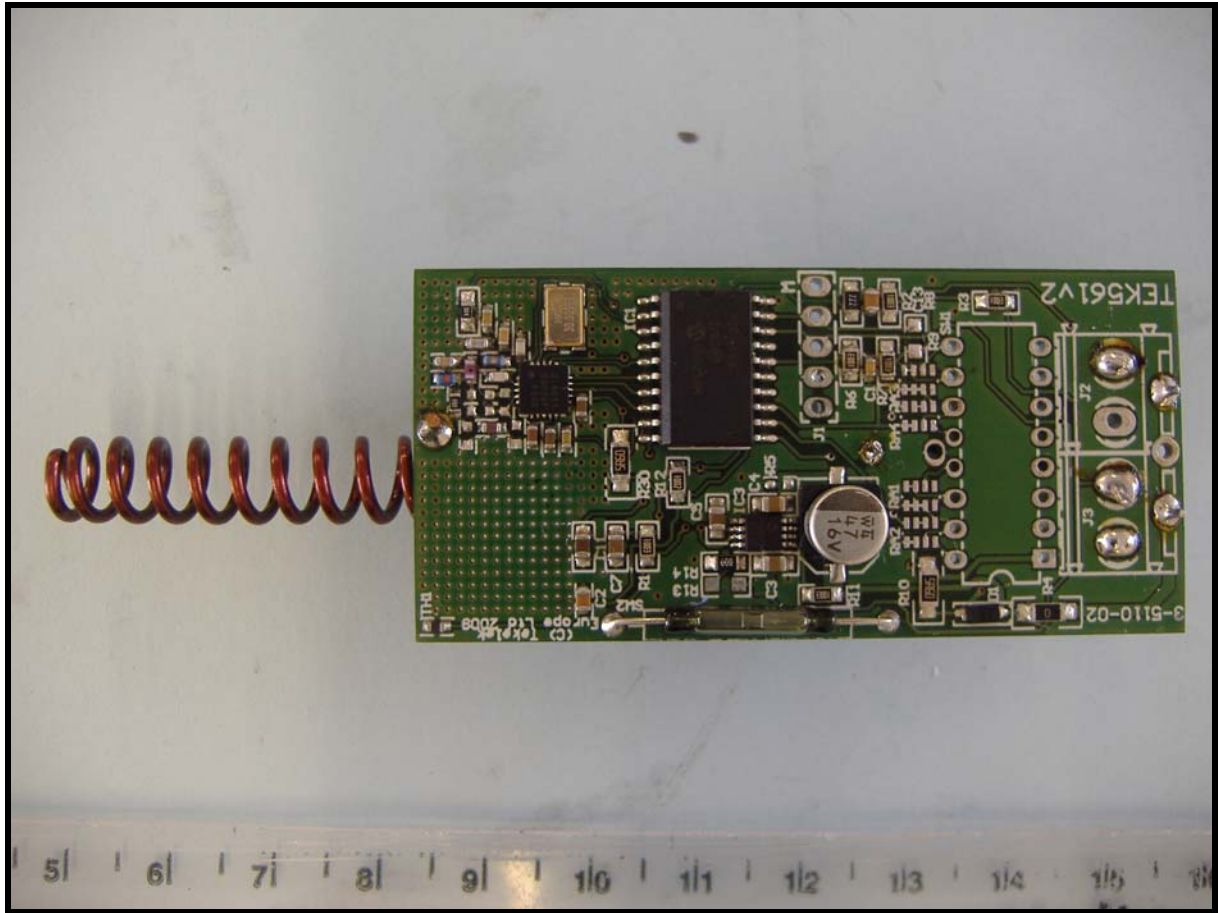
TYPE OF EQUIPMENT	MAKER/SUPPLIER	MODEL No	SERIAL No	TRL No	EQUIPMENT USED
RADIO COMMUNICATIONS ANALYSER	R & S	CMTA 52	894715 / 003	05	
LOOP ANTENNA	R & S	HFH2	881058-53	07	
ENVIRONMENTAL CHAMBER (temp)	SHARETREE	TCC125 - 815P	CS 203	11	
HORN ANTENNA	EMCO	3115	9010 - 3580	138	X
HORN ANTENNA	EMCO	3115	9010 - 3581	139	
RF SIGNAL GEN	MARCONI	2042	119388 / 080	176	
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PRE AMPLIFIER	AGILENT	8449B	3008A016	572	X
RECEIVER	R & S	ESHS 10	830051/001	UH03	
RECEIVER	R & S	ESVS 10	825892/003	UH04	
RANGE 1	TRL	3 METRE	N/A	UH06	X
MULTIMETER	AVOmeter	M3004	M3270006	UH41	
BILOG ANTENNA	CHASE	CBL6112	2129	UH93	X
POWER SUPPLY	THANDOR	PL320QMD	044749	UH100	
OSCILLOSCOPE	TEKTRONIX	TDS520B	B020491	UH122	
POWER METER	MARCONI	6960B	237036/001	UH132	
RECEIVER	R & S	ESVS 10	841431/014	UH186	X
RECEIVER	R & S	ESHS 10	841429/012	UH187	
BILOG ANTENNA	YORK	CBL611/A	1618	UH191	
500W AUDIO AMPLIFIER	PRO POWER	STA-162	688200474	UH196	
POWER SENSOR	MARCONI	6920	1564	UH228	
SPECTRUM ANALYSER	R & S	FSU	200034	UH281	X
RF SIGNAL GEN	HP	83630B	3722A00588	UH340	

ANNEX A
PHOTOGRAPHS









ANNEX B
APPLICANT'S SUBMISSION OF DOCUMENTATION LIST

APPLICANT'S SUBMISSION OF DOCUMENTATION LIST

a.	TCB	-	APPLICATION	[X]
		-	FEE	[X]
b.	AGENT'S LETTER OF AUTHORISATION	-		[X]
c.	MODEL(s) vs IDENTITY	-		[]
d.	ALTERNATIVE TRADE NAME DECLARATION(s)	-		[]
e.	LABELLING	-	PHOTOGRAPHS	[X]
		-	DECLARATION	[]
		-	DRAWINGS	[]
f.	TECHNICAL DESCRIPTION	-		[X]
g.	BLOCK DIAGRAMS	-	Tx	[X]
		-	Rx	[]
		-	PSU	[]
		-	AUX	[]
h.	CIRCUIT DIAGRAMS	-	Tx	[X]
		-	Rx	[]
		-	PSU	[]
		-	AUX	[]
i.	COMPONENT LOCATION	-	Tx	[X]
		-	Rx	[]
		-	PSU	[]
		-	AUX	[]
j.	PCB TRACK LAYOUT	-	Tx	[X]
		-	Rx	[]
		-	PSU	[]
		-	AUX	[]
k.	BILL OF MATERIALS	-	Tx	[X]
		-	Rx	[]
		-	PSU	[]
		-	AUX	[]
l.	USER INSTALLATION / OPERATING INSTRUCTIONS	-		[X]

ANNEX C
MEASUREMENT UNCERTAINTY

Radio Testing – General Uncertainty Schedule

All statements of uncertainty are expanded standard uncertainty using a coverage factor of 1.96 to give a 95% confidence where no required test level exists.

[1] Adjacent Channel Power

Uncertainty in test result = **1.86dB**

[2] Carrier Power

Uncertainty in test result (Equipment - TRLUH120) = **2.18dB**

Uncertainty in test result (Equipment – TRL05) = **1.08dB**

Uncertainty in test result (Equipment – TRL479) = **2.48dB**

[3] Effective Radiated Power

Uncertainty in test result = **4.71dB**

[4] Spurious Emissions

Uncertainty in test result = **4.75dB**

[5] Maximum frequency error

Uncertainty in test result (Equipment - TRLUH120) = **119ppm**

Uncertainty in test result (Equipment – TRL05) = **0.113ppm**

Uncertainty in test result (Equipment – TRL479) = **0.265ppm**

[6] Radiated Emissions, field strength OATS 14kHz-18GHz Electric Field

Uncertainty in test result (14kHz – 30MHz) = **4.8dB**, Uncertainty in test result (30MHz – 1GHz) = **4.6dB**,

Uncertainty in test result (1GHz-18GHz) = **4.7dB**

[7] Frequency deviation

Uncertainty in test result = **3.2%**

[8] Magnetic Field Emissions

Uncertainty in test result = **2.3dB**

[9] Conducted Spurious

Uncertainty in test result (Equipment TRL479) Up to 8.1GHz = **3.31dB**

Uncertainty in test result (Equipment TRL479) 8.1GHz – 15.3GHz = **4.43dB**

Uncertainty in test result (Equipment TRL479) 15.3GHz – 21GHz = **5.34dB**

Uncertainty in test result (Equipment TRLUH120) Up to 26GHz = **3.14dB**

[10] Channel Bandwidth

Uncertainty in test result = **15.5%**

[11] Amplitude and Time Measurement – Oscilloscope

Uncertainty in overall test level = **2.1dB**, Uncertainty in time measurement = **0.59%**, Uncertainty in Amplitude measurement = **0.82%**

[11] Power Line Conduction

Uncertainty in test result = **3.4dB**

[12] Spectrum Mask Measurements

Uncertainty in test result = **2.59% (frequency)**
Uncertainty in test result = **1.32dB (amplitude)**

[13] Adjacent Sub Band Selectivity

Uncertainty in test result = **1.24dB**

[14] Receiver Blocking – Listen Mode, Radiated

Uncertainty in test result = **3.42dB**

[15] Receiver Blocking – Talk Mode, Radiated

Uncertainty in test result = **3.36dB**

[16] Receiver Blocking – Talk Mode, Conducted

Uncertainty in test result = **1.24dB**

[17] Receiver Threshold

Uncertainty in test result = **3.23dB**

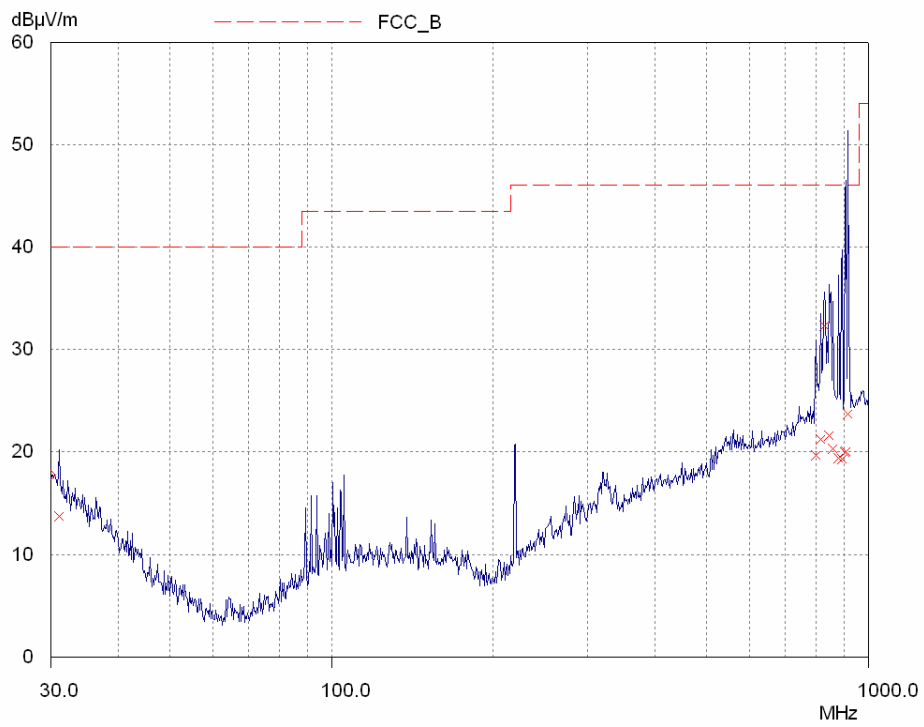
[18] Transmission Time Measurement

Uncertainty in test result = **7.98%**

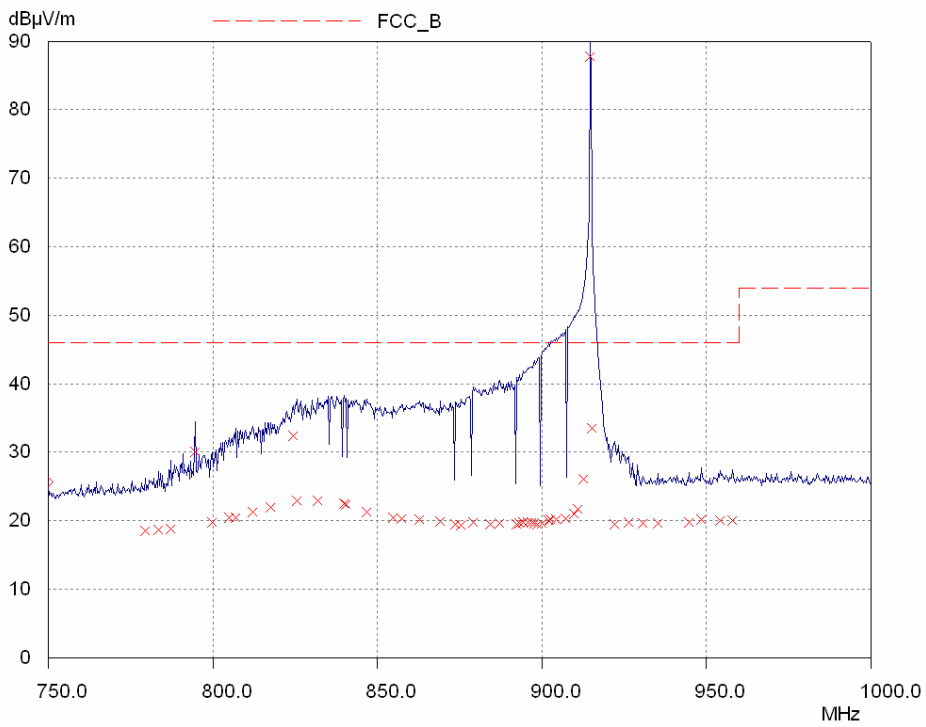
ANNEX D
TEST EQUIPMENT CALIBRATION

TRL Number	Equipment Type	Manufacturer	Last Cal Calibration	Calibration Period	Due For Calibration
UH06/07	IC OATS Submission	TRL	02/07/2009	24	02/07/2011
UH06/07	NSA Calibration	TRL	19/06/2009	12	19/06/2010
UH041	Multimeter	AVOmeter	21/01/2009	12	21/01/2010
UH093	Bilog	Chase	03/06/2009	24	03/06/2011
UH122	Oscilloscope	Tektronix	10/12/2007	24	10/12/2009
UH132	Power meter	Marconi	21/01/2009	12	21/01/2010
UH162	ERP Cable Cal	TRL	01/03/2009	12	01/03/2010
UH186	Receiver	R&S	09/12/2008	12	09/12/2009
UH228	Power Sensor	Marconi	22/01/2009	12	22/01/2010
UH253	1m Cable N type	TRL	15/07/2009	12	15/07/2010
UH254	1m Cable N type	TRL	15/07/2009	12	15/07/2010
UH269	1m Cable N type	TRL	15/07/2009	12	15/07/2010
UH270	1m Cable N type	TRL	15/07/2009	12	15/07/2010
UH271	1.5m Cable N type	TRL	15/07/2009	12	15/07/2010
UH272	1.5m Cable N type	TRL	15/07/2009	12	15/07/2010
UH273	2m Cable N type	TRL	15/07/2009	12	15/07/2010
UH274	2m Cable N type	TRL	15/07/2009	12	15/07/2010
UH281	Spectrum Analyser	R&S	28/10/2008	12	28/10/2009
UH288	1m Cable N type	N/A	15/07/2009	12	15/07/2010
UH291	K-Type Cable	Succoflex	15/07/2009	12	15/07/2010
UH293	K-Type Cable	Megaphase	15/07/2009	12	15/07/2010
UH330	K type transition	Maury M'wave	12/06/2008	24	12/06/2010
UH340	Signal Generator	HP	03/06/2009	12	03/06/2010
UH365	Harmonic Mixer (33-50)	Agilent	16/07/2008	24	16/07/2010
UH366	Harmonic Mixer (50-75)	Agilent	21/07/2008	24	21/07/2010
UH367	Harmonic Mixer (75-110)	Agilent	02/07/2008	24	02/07/2010
UH368	Horn (50-75)	Flann	02/07/2008	24	02/07/2010
UH369	Horn (75-110)	Flann	02/07/2008	24	02/07/2010
UH378	3M Cable	TRaC	15/07/2009	12	15/07/2010
UH379	High Pass Filter	Axell	15/07/2009	12	15/07/2010
L005	CMTA	R&S	29/10/2008	12	29/10/2009
L138	1-18GHz Horn	EMCO	31/08/2007	24	31/08/2009
L176	Signal Generator	Marconi	23/06/2009	12	23/06/2010
L254	Signal Generator	Marconi	25/02/2009	12	25/02/2010
L193	Bicone Antenna	Chase	06/05/2008	24	06/05/2010
L203	Log Periodic Ant	Chase	06/05/2008	24	06/05/2010
L263/A	Horn 18-26GHz	Flann	13/06/2008	24	13/06/2010
L300	Horn 18-26GHz (&UH330)	Flann	12/06/2008	24	12/06/2010
L309	SMA Transition	N/A	13/06/2008	24	13/06/2010
L426	Temperature Indicator	Fluke	21/01/2009	12	21/01/2010
L479	Analyser	Anritsu	22/09/2008	12	22/09/2009
L527	3M Cable	TRaC	15/07/2009	12	15/07/2010
L572	Pre Amp	Agilent	15/07/2009	12	15/07/2010
L664	3M Cable	TRaC	15/07/2009	12	15/07/2010

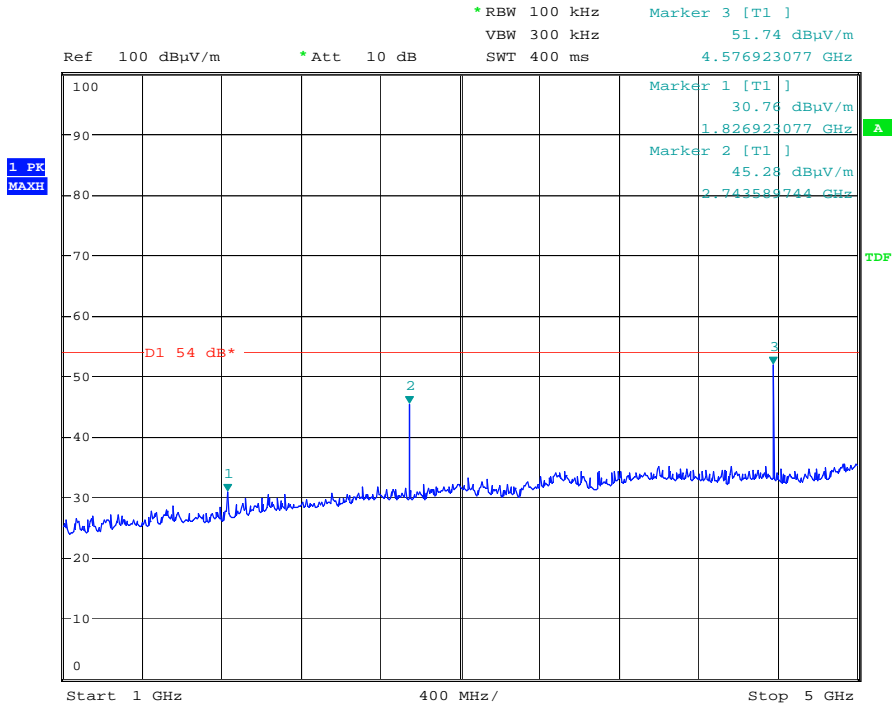
ANNEX E
EMISSIONS GRAPH(s)



30 MHz – 1GHz

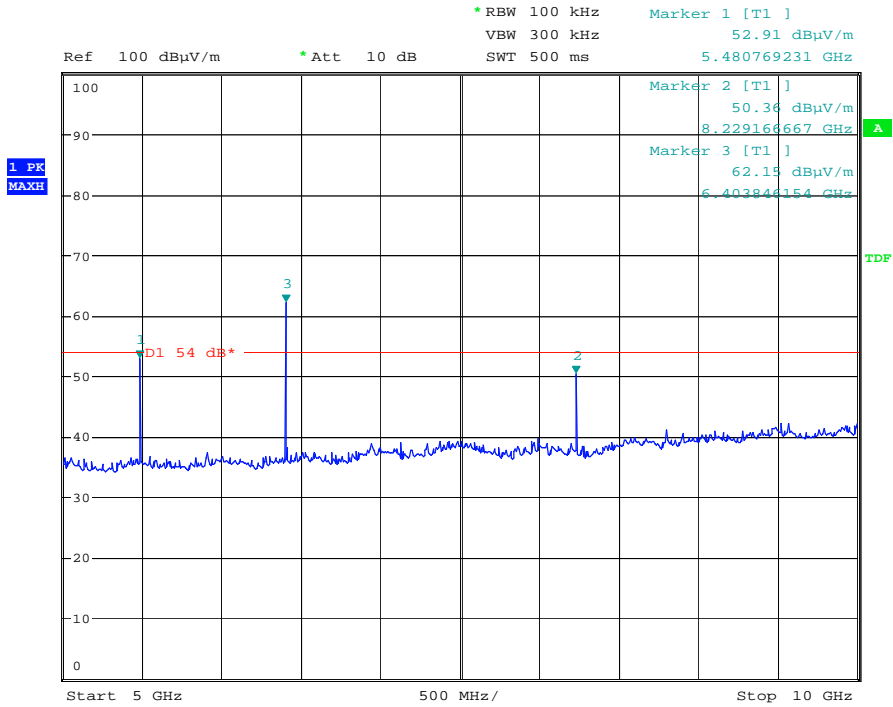


750MHz – 1GHz



Date: 18.AUG.2009 15:22:45

1GHz – 5 GHz

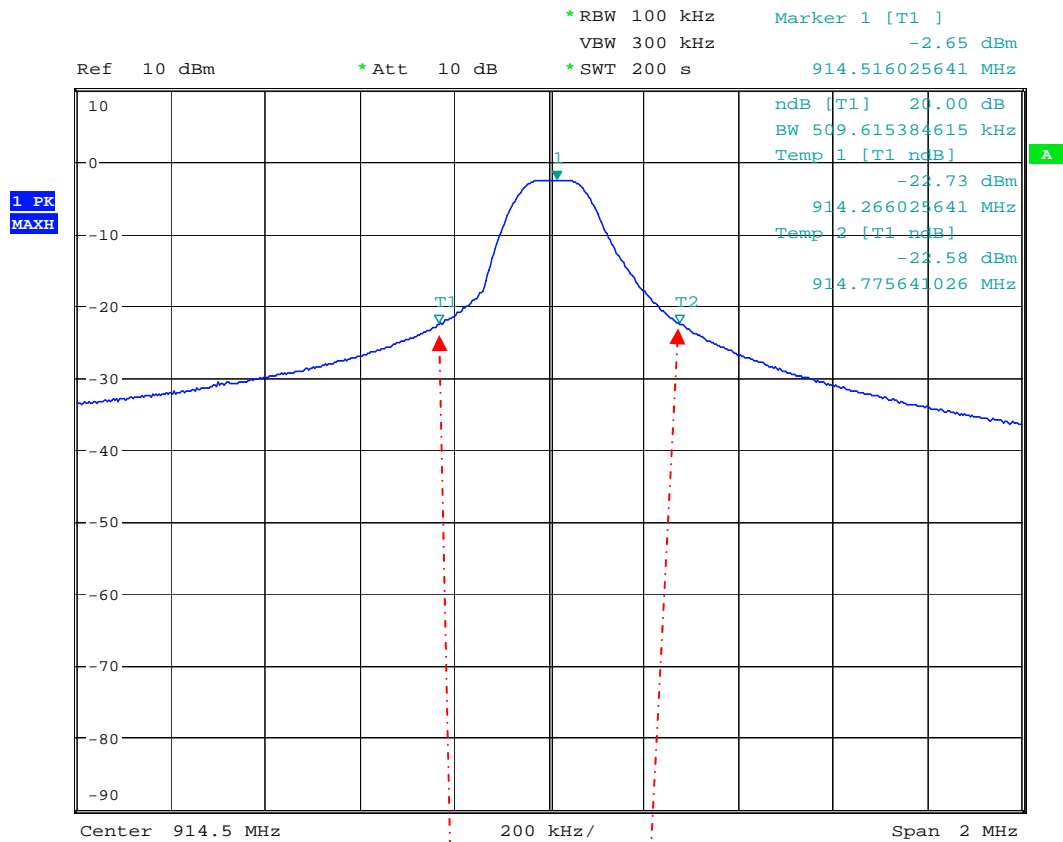


Date: 18.AUG.2009 15:22:00

5GHz – 10 GHz

ANNEX F
BANDWIDTH PLOT

BANDWIDTH PLOT

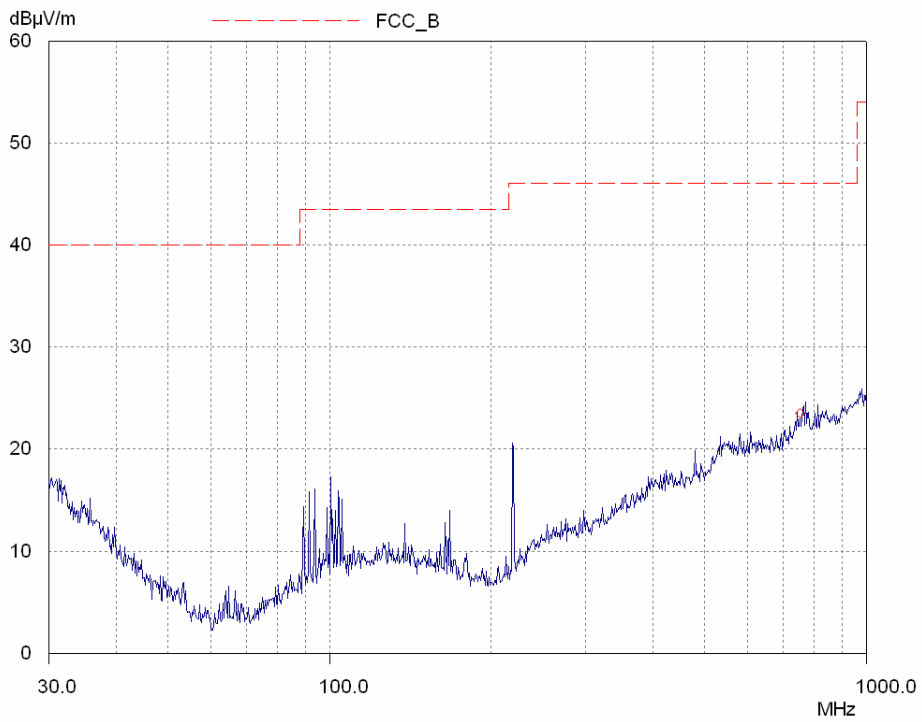


Date: 18.AUG.2009 16:12:24

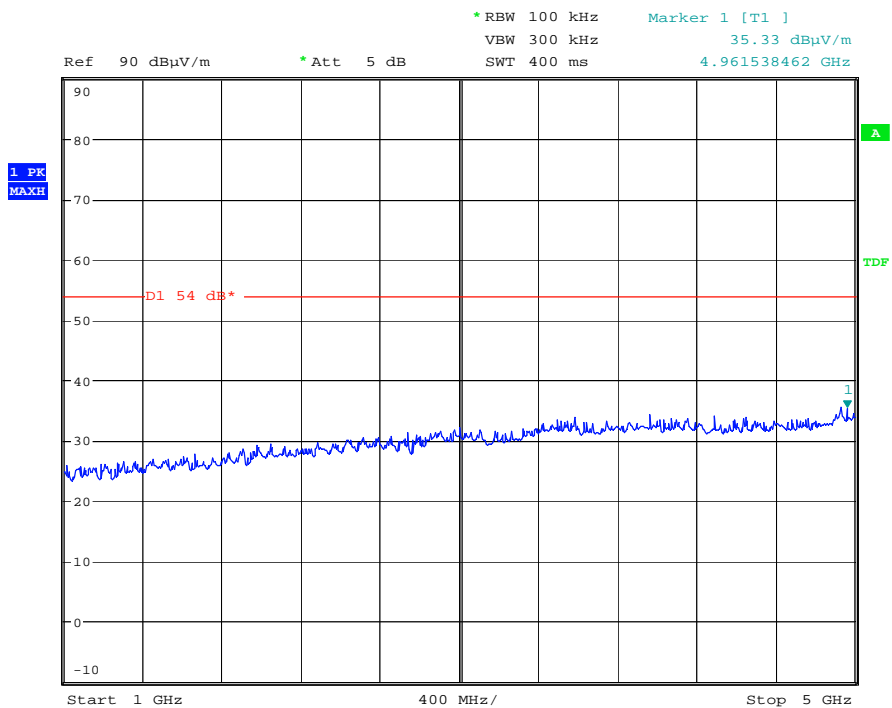
f_{Lower} f_{Higher}

f_{Lower} = 914.266025641 MHz
 f_{Higher} = 914.775641026 MHz
 Occupied Bandwidth = 509.615 kHz

ANNEX G
UNINTENTIONAL EMISSION GRAPH(s)

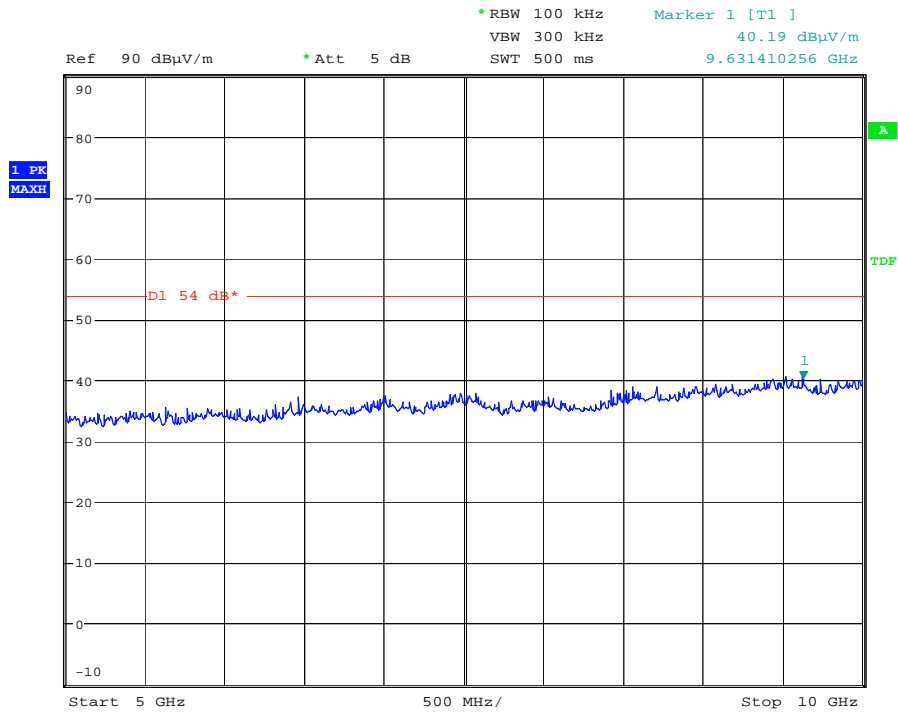


30MHz – 1GHz



Date: 18.AUG.2009 16:21:34

1GHz – 5GHz



Date: 18.AUG.2009 16:21:55

5GHz – 10GHz