TEST REPORT
FROM
RFI GLOBAL SERVICES LTD

Test of: Panasonic Mobile Comms Dev of Europe Ltd
NTT DoCoMo P905i

To: FCC Part 24: 2006 (Subpart E)

Test Report Serial No:
RFI/RPTE3/RP49463JD09A

Supersedes Test Report Serial No:
RFI/RPTE2/RP49463JD09A

This Test Report Is Issued Under The Authority Of Brian Watson, Operations Director: 	
Checked By: Steven Wong  **pp**	**Report Copy No: PDF01**
Issue Date: 18 October 2007	**Test Dates: 20 September 2007 to 24 September 2007**

This report is issued in Adobe Acrobat portable document format (PDF). It is only a valid copy of the report if it is being viewed in PDF format with the following security options not allowed: Changing the document, Selecting text and graphics, Adding or changing notes and form fields.
This report may be copied in full. The results in this report apply only to the sample(s) tested.

RFI Global Services Ltd
Pavilion A, Ashwood Park, Ashwood Way, Basingstoke, Hampshire RG23 8BG
Telephone: +44 (0)1256 312000 Facsimile: +44 (0)1256 312001
Email: info@rfi-global.com Website: www.rfi-global.com

Registered in England and Wales. Company number:2117901

This page has been left intentionally blank.

Test of: Panasonic Mobile Comms Dev of Europe Ltd
NTT DoCoMo P905i
To: FCC Part 24: 2006 (Subpart E)

Table of Contents

1. Client Information

Company Name:	Panasonic Mobile Comms Dev of Europe Ltd
Address:	2 Gables Way Colthrop Thatcham Berkshire RG19 4ZB UK
Contact Name:	Mr M Hargreaves

2. Equipment Under Test (EUT)

The following information (with the exception of the date of receipt) has been supplied by the customer:

2.1. Description of EUT

The equipment under test is a dual mode (W-CDMA/GSM) cellular mobile telephone with Bluetooth and RFID technology.

This report covers the RFID Part only. The other modes of operation are covered by other test reports.

2.2. Identification of Equipment Under Test (EUT)

Description:	Mobile Handset
Brand Name:	NTT DoCoMo
Model Name or Number:	P905i
Serial Number:	None stated
IMEI Number:	355282010026081 and 355282010026107 (Conducted Sample)
Hardware Version Number:	Rev C
Software Version Number:	APCU: B-WN905A-01.05.002 CCPU: P7Cv01.01.06.00
FCC ID Number:	UCE207002A
Country of Manufacture:	Japan
Date of Receipt:	17 September 2007

2.3. Modifications Incorporated in the EUT

During the course of testing the EUT was not modified.

2.4. Accessories

The following accessories were supplied with the EUT during testing.

Description:	AC Charger
Brand Name:	JET Kyushu Mitsumi
Model Name or Number:	MAS-BH0008-A-001
Serial Number:	Not Supplied
Cable Length and Type:	1.5 m, twin core
Connected to Port	Charge/Data port

Accessories (Continued)

Description:	DC Charger
Brand Name:	NTT DoCoMo
Model Name or Number:	FOMA DC Adapter 01
Serial Number:	Not applicable
Cable Length:	80 cm
Connected to Port:	Charge/Data port

Description:	Personal Hands Free (Stereo)
Brand Name:	NTT DoCoMo
Model Name or Number:	Stereo Earphone Set P001
Serial Number:	Not applicable
Cable Length:	80 cm
Connected to Port:	Audio PHF

Description:	USB Charge Data Cable
Brand Name:	NTT DoCoMo
Model Name or Number:	FOMA USB Cable with charge function 01
Serial Number:	Not applicable
Cable Length:	50 cm
Connected to Port:	Charge/Data port

Description:	Micro SD Memory Card
Brand Name:	None stated
Model Name or Number:	Not applicable
Serial Number:	Not applicable
Cable Length:	Not applicable
Connected to Port:	Dedicated micro-SD

2.5. Support Equipment

No support equipment was used to exercise the EUT during testing.

2.6. Additional Information Related to Testing

Intended Operating Environment:	Within GSM coverage		
Equipment Category:	*Bluetooth*, GSM/GPRS, Short Range Device and UMTS FDD I		
Type of Unit:	Portable (standalone battery powered transceiver)		
Power Supply Requirement:	Nominal 110 V, 60 Hz AC Mains Supply DC Supply of 12/24V Internal Battery Supply of 3.7 V (nominal)		
Maximum Power Output (EIRP):	27.8 dBm (maximum measured)		
Occupied Bandwidth:	310.621 kHz (measured worse case)		
Transmit Frequency Range:	1850 MHz to 1910 MHz		
Transmit Channels Tested:	**Channel ID**	**Channel Number**	**Channel Frequency (MHz)**
	Bottom	512	1850.2
	Middle	660	1879.8
	Top	810	1909.8
Receive Frequency Range:	1930 MHz to 1990 MHz		
Receive Channels Tested:	**Channel ID**	**Channel Number**	**Channel Frequency (MHz)**
	Bottom	512	1930.2
	Middle	660	1959.8
	Top	810	1989.8

2.7. Port Identification

Port	Description
1.	Charge/Data
2.	Audio PHF
3.	USIM
4.	Micro-SD

3. Test Specification, Methods and Procedures

3.1. Test Specification

Reference:	FCC Part 24 Subpart E: 2006 (Broadband PCS)
Title:	Code of Federal Regulations, Part 24 (47CFR24) Personal Communication Services.

3.2. Methods and Procedures

The methods and procedures used were as detailed in:

ANSI/TIA-603-B-2003
Land Mobile Communications Equipment, Measurements and performance Standards

ANSI C63.2 (1987)
Title: American National Standard for Instrumentation - Electromagnetic noise and field strength.

ANSI C63.4 (2003)
Title: American National Standard Methods of Measurement of Electromagnetic Emissions from Low Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

ANSI C63.5 (1988)
Title: American National Standard for the Calibration of antennas used for Radiated Emission measurements in Electromagnetic Interference (EMI) control.

ANSI C63.7 (1988)
Title: American National Standard Guide for Construction of Open Area Test Sites for performing Radiated Emission Measurements.

CISPR 16-1: (1999)
Title: Specification For Radio Disturbance and Immunity Measuring Apparatus and Methods. Part 1: Radio Disturbance and Immunity Measuring Apparatus.

3.3. Definition of Measurement Equipment

The measurement equipment used complied with the requirements of the standards referenced in the methods & procedures section above. Appendix 1 contains a list of the test equipment used.

4. Deviations from the Test Specification

There were no deviations from the test specification.

5. Operation and Configuration of the EUT during Testing

5.1. Operating Modes

The EUT was tested in the following operating modes, unless otherwise stated.

The EUT was set to transmit in GSM mode, on the bottom, middle or top channel, as requested by each test case.

The EUT was set into a non-call Idle mode.

5.2. Configuration and Peripherals

The EUT was tested in the following configuration, unless otherwise stated.

Pre-scans were performed with each accessory connected to investigate the worst case condition. The investigation showed little variation in emissions per accessory.

The EUT was connected to the AC charger during the final measurements and a wireless link to a GSM test set was established.

6. Summary of Test Results

Devices with an External Antenna Connector

Range of Measurements	Specification Reference	Port Type	Compliancy Status
Idle Mode AC Conducted Spurious Emissions (150 kHz to 30 MHz)	Section 15.107	AC Mains Input	Complied
Idle Mode Radiated Spurious Emissions	Section 15.109	Enclosure	Complied
Transmitter Effective Isotropic Radiated Power (EIRP)	Section 24.232	Antenna	Complied
Transmitter Frequency Stability (Temperature Variation)	Section 24.235	Terminals	Complied
Transmitter Frequency Stability (Voltage Variation)	Section 24.235	Antenna	Complied
Transmitter Occupied Bandwidth	Section 2.1049	Antenna	Complied
Transmitter Out of Band Radiated Emissions	Section 2.1053/24.238	Antenna	Complied
Transmitter Band Edge Radiated Emissions	Section 2.1053/24.238	Antenna	Complied

6.1. Location of Tests

All the measurements described in this report were performed at the premises of
RFI Global Services Ltd, Ewhurst Park, Ramsdell, Basingstoke, Hampshire, RG26 5RQ

FCC Site Registration Number: 90895

IC Site Registration Number: 3485

7. Measurements, Examinations and Derived Results

7.1. General Comments

This section contains test results only.

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to section 8 for details of measurement uncertainties.

7.2. Test Results

7.2.1. Idle Mode AC Conducted Spurious Emissions

Tests were performed in accordance with C63.4 Section 7.

Results:

Quasi-Peak Detector Measurements on Live and Neutral Lines

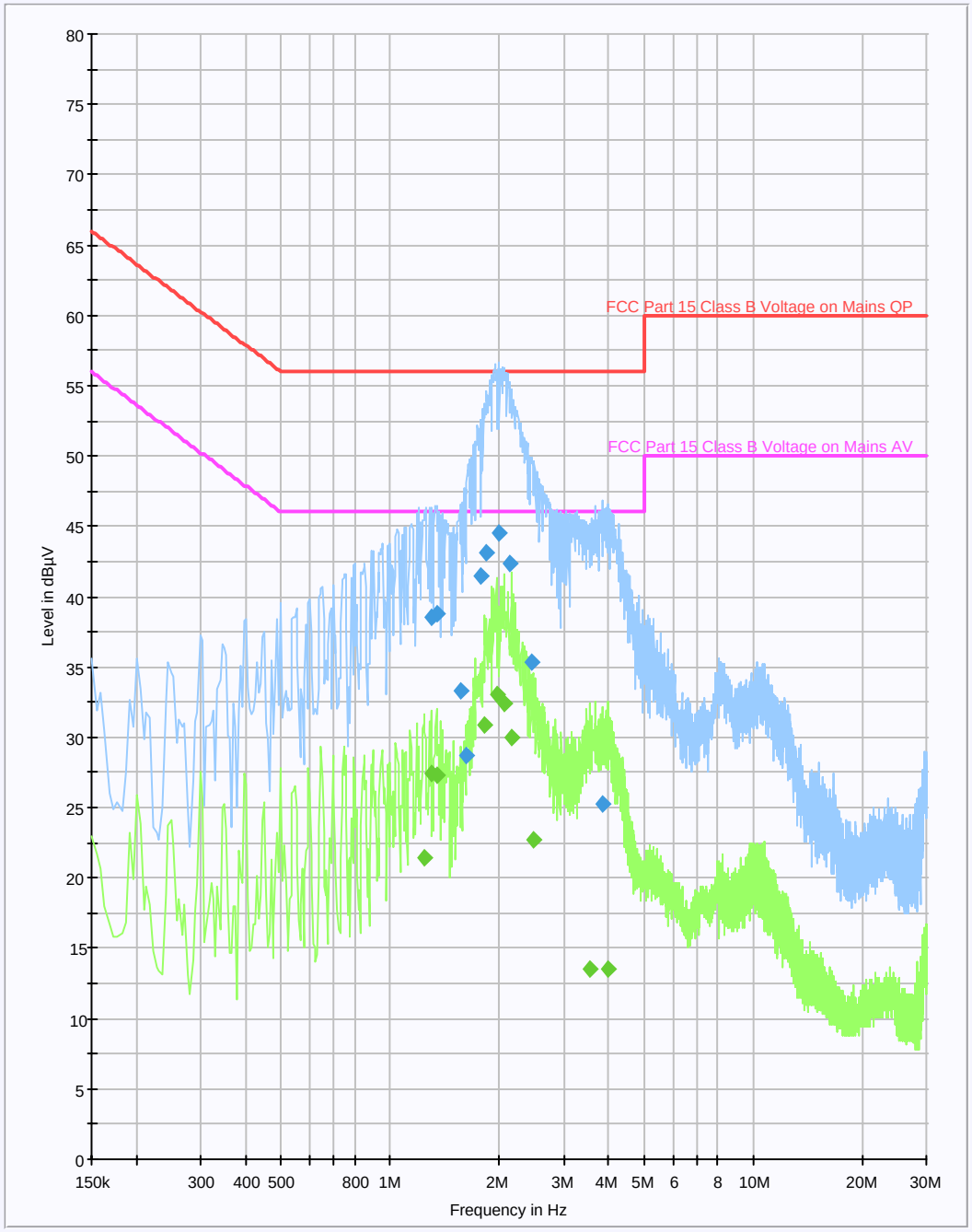
Frequency (MHz)	Line	Level (dBμV)	Limit (dBμV)	Margin (dB)
1.297500	Live	38.6	56.0	17.4
1.342500	Live	38.8	56.0	17.2
1.567500	Live	33.3	56.0	22.7
1.626000	Neutral	28.7	56.0	27.3
1.765500	Live	41.5	56.0	14.5
1.842000	Live	43.1	56.0	12.9
1.990500	Live	44.6	56.0	11.4
2.130000	Live	42.3	56.0	13.7
2.449500	Live	35.3	56.0	20.7
3.831000	Live	25.3	56.0	30.7

Average Detector Measurements on Live and Neutral Lines

Frequency (MHz)	Line	Level (dBμV)	Limit (dBμV)	Margin (dB)
1.239000	Neutral	21.5	46.0	24.5
1.293000	Live	27.5	46.0	18.5
1.338000	Live	27.3	46.0	18.7
1.819500	Live	30.8	46.0	15.2
1.959000	Live	33.0	46.0	13.0
2.058000	Live	32.4	46.0	13.6
2.161500	Live	30.0	46.0	16.0
2.467500	Live	22.7	46.0	23.3
3.534000	Live	13.5	46.0	32.5
3.993000	Live	13.5	46.0	32.5

Test of: Panasonic Mobile Comms Dev of Europe Ltd
NTT DoCoMo P905i
To: FCC Part 24: 2006 (Subpart E)

Idle Mode AC Conducted Spurious Emissions (Continued)



Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.

7.2.2. Idle Mode Radiated Spurious Emissions

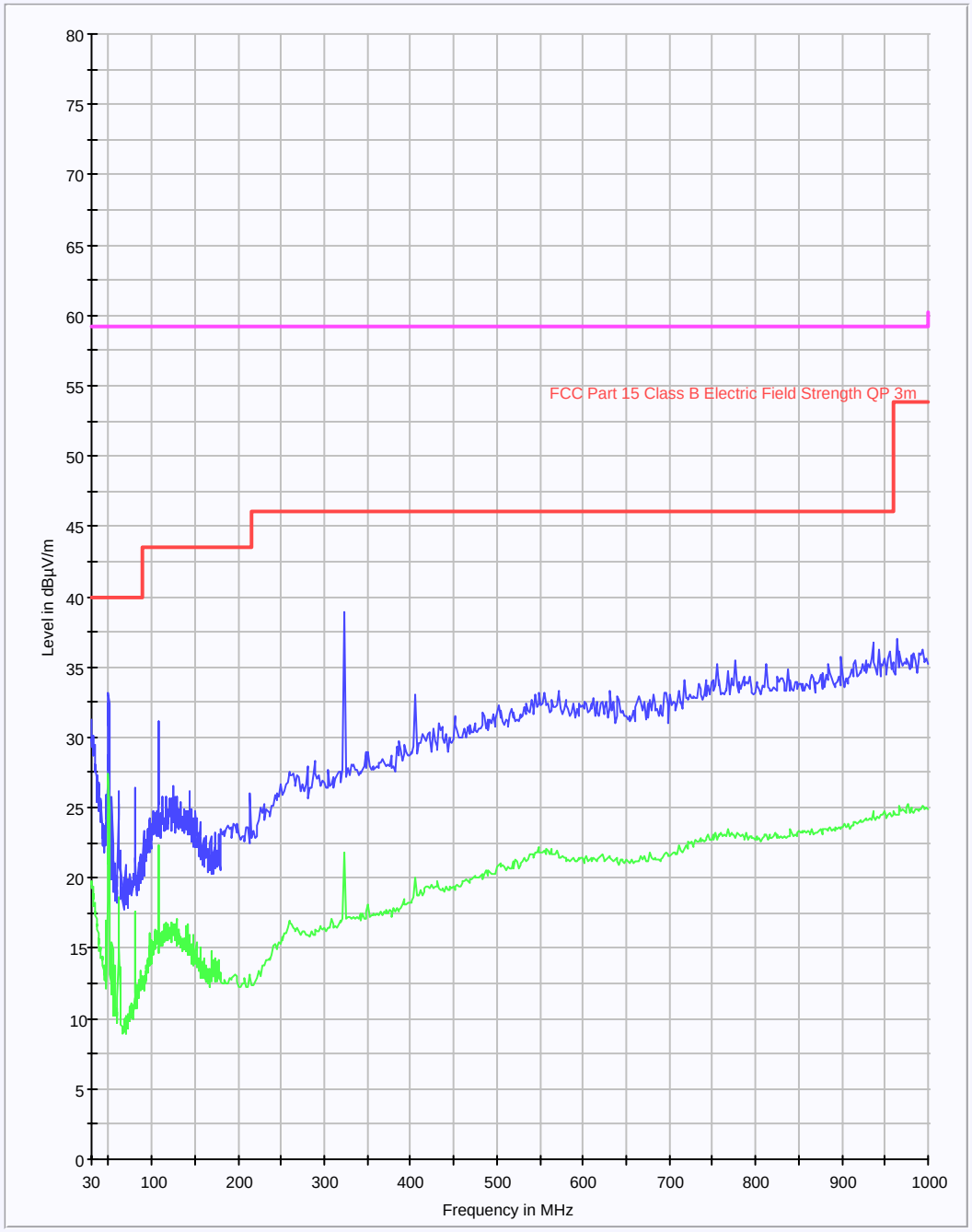
Tests were performed in accordance with C63.4 Section 8 and relevant annexes.

Results:

Electric Field Strength Measurements (Frequency Range: 30 to 1000 MHz)

Frequency (MHz)	Antenna Polarity	Quasi Peak Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
49.839	Horizontal	16.4	40.0	23.6
108.156	Horizontal	13.5	43.5	30.0
522.965	Horizontal	16.4	46.0	29.6

Idle Mode Radiated Spurious Emissions (Continued)



Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.

7.2.3. Idle Mode Radiated Spurious Emissions

Tests were performed in accordance with C63.4 Section 8 and relevant annexes.

Results:

Electric Field Strength Measurements (Frequency Range: 1 to 10 GHz)

Peak Level:

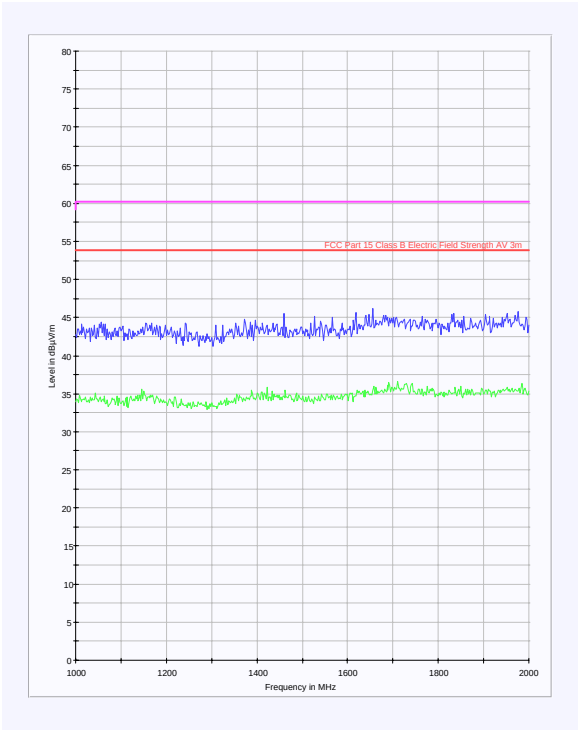
Frequency (GHz)	Antenna Polarity	Level (dBμV)	Limit (dBμV/m)	Margin (dB)
6.937876	Horizontal	42.4	54	11.6

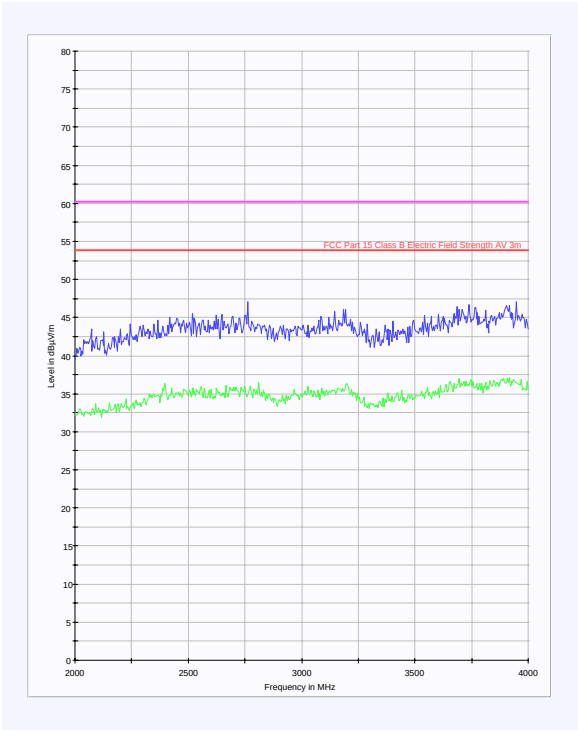
Note(s):

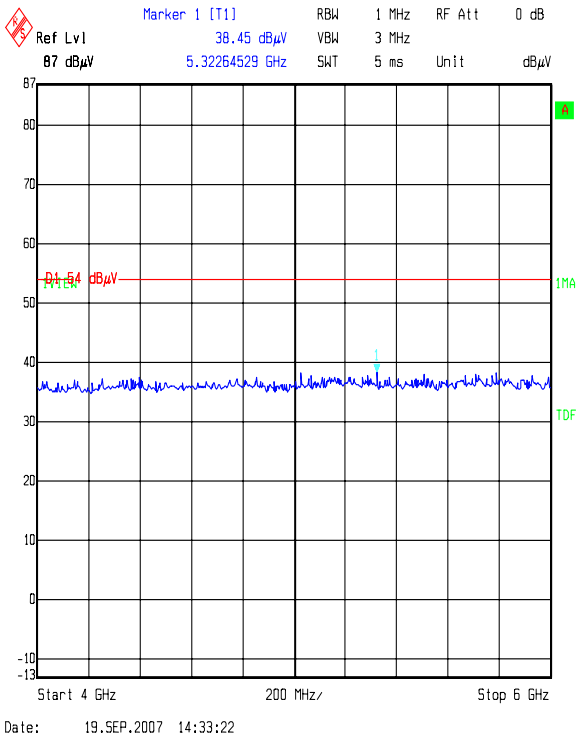
1. *There were no emissions above 1GHz, as such, the highest noise floor reading was reported with a peak detector and compared against the average limit to show compliance.*

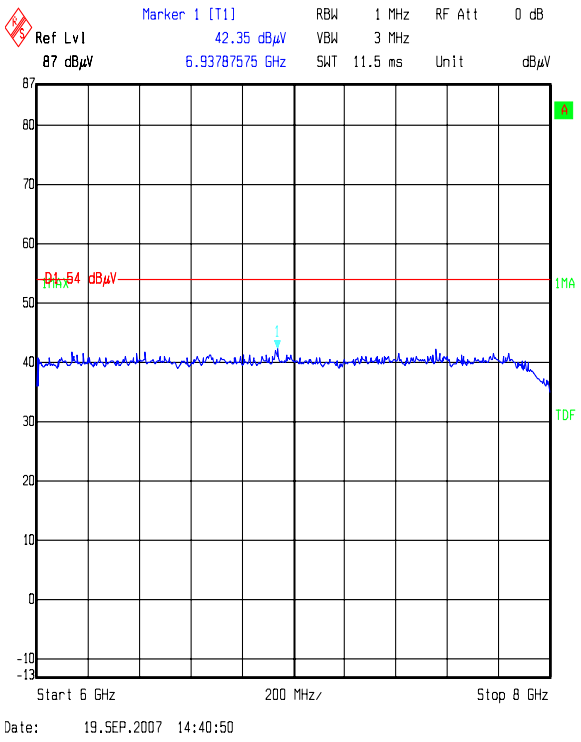
Test of: **Panasonic Mobile Comms Dev of Europe Ltd**
NTT DoCoMo P905i
To: **FCC Part 24: 2006 (Subpart E)**

Idle Mode Radiated Spurious Emissions (Continued)



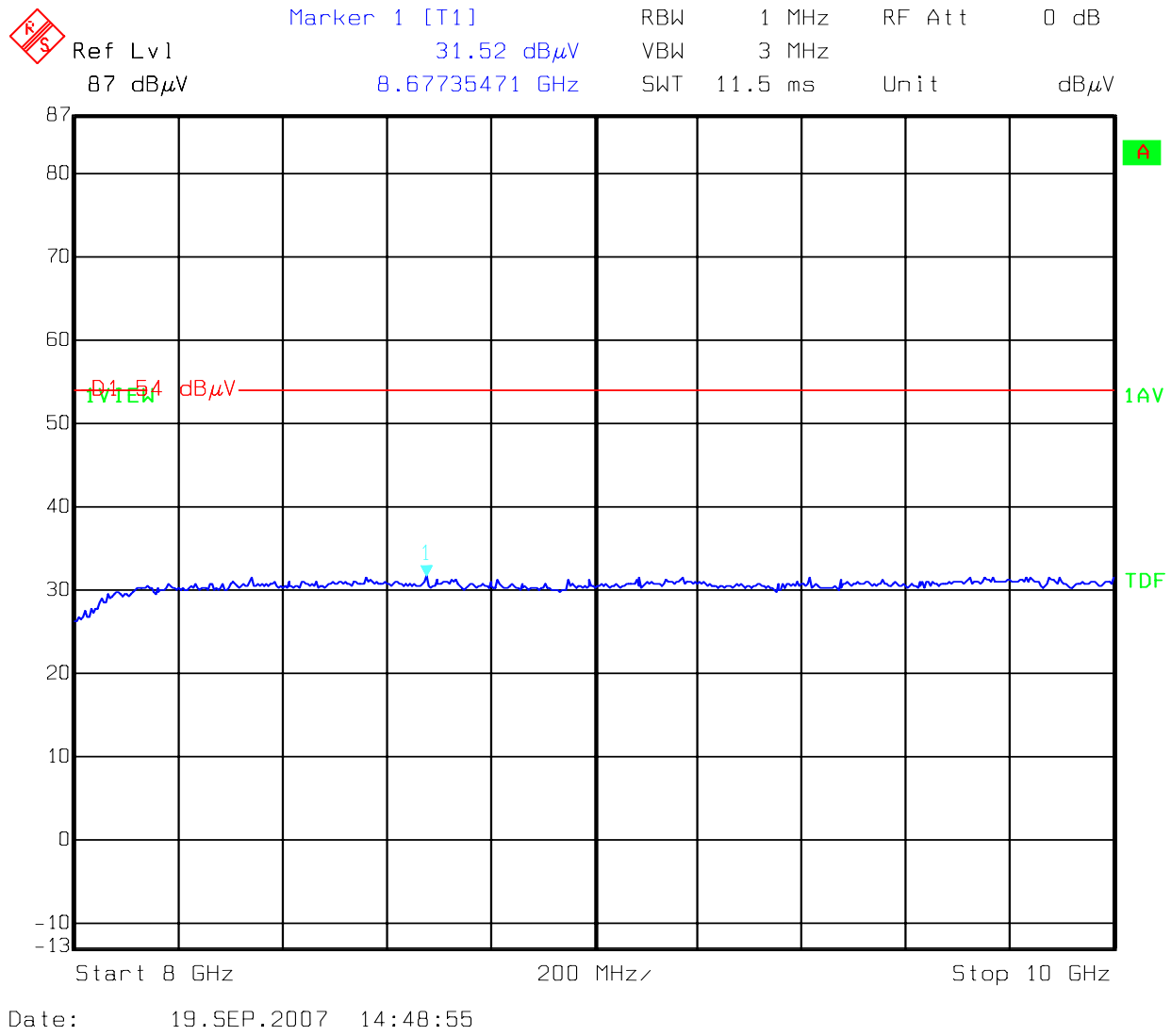






Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Idle Mode Radiated Spurious Emissions (Continued)



Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.

7.2.4. Transmitter Effective Isotropic Radiated Power (EIRP)

Tests were performed in accordance with EIA/TIA 603 C clause 2.2.17.2.

Results:

Channel	Measured Frequency (MHz)	Antenna Polarity	Maximum Transmitter EIRP (dBm)	Limit EIRP (dBm)	Margin (dB)
Bottom	1850.2	Horizontal	26.8	33.0	6.2
Middle	1879.8	Horizontal	26.5	33.0	6.5
Top	1909.8	Horizontal	27.8	33.0	5.2

7.2.5. Transmitter Frequency Stability (Temperature Variation)

Tests were performed in accordance with FCC Part 2.1055.

Results:

Bottom Channel (1850.2 MHz)

Temperature (ºC)	Frequency Error (Hz)	Measured Frequency (MHz)	Lower Band Edge Limit (MHz)	Margin (MHz)
-30	9.0	1850.199991	1850	0.199991
-20	11.0	1850.199989	1850	0.199989
-10	45.0	1850.199955	1850	0.199955
0	30.1	1850.199970	1850	0.199970
10	25.4	1850.199975	1850	0.199975
20	23.3	1850.199977	1850	0.199977
30	23.0	1850.199977	1850	0.199977
40	13.0	1850.199987	1850	0.199987
50	32.0	1850.199968	1850	0.199968

Transmitter Frequency Stability (Temperature Variation) (Continued)

Results:

Top Channel (1910.8 MHz)

Temperature (ºC)	Frequency Error (Hz)	Measured Frequency (MHz)	Upper Band Edge Limit (MHz)	Margin (MHz)
-30	12.0	1909.800012	1910	0.199988
-20	19.0	1909.800019	1910	0.199981
-10	57.0	1909.800057	1910	0.199943
0	50.0	1909.800050	1910	0.199950
10	25.4	1909.800025	1910	0.199975
20	14.7	1909.800015	1910	0.199985
30	17.0	1909.800017	1910	0.199983
40	23.0	1909.800023	1910	0.199977
50	40.0	1909.800040	1910	0.199960

7.2.6. Transmitter Frequency Stability (Voltage Variation)

Tests were performed in accordance with FCC Part 2.1055.

Results:

Bottom Channel (1850.2 MHz)

Supply Voltage (V)	Frequency Error (Hz)	Measured Frequency (MHz)	Lower Band Edge Limit (MHz)	Margin (MHz)
4.2	14.0	1850.199986	1850	0.199986
3.7	9.0	1850.199991	1850	0.199991
3.4	12.0	1850.199988	1850	0.199988

Top Channel (1909.8 MHz)

Supply Voltage (V)	Frequency Error (Hz)	Measured Frequency (MHz)	Lower Band Edge Limit (MHz)	Margin (MHz)
4.2	17.0	1909.800017	1910	0.199983
3.7	12.0	1909.800012	1910	0.199988
3.4	11.0	1909.800011	1910	0.199989

7.2.7. Transmitter Occupied Bandwidth

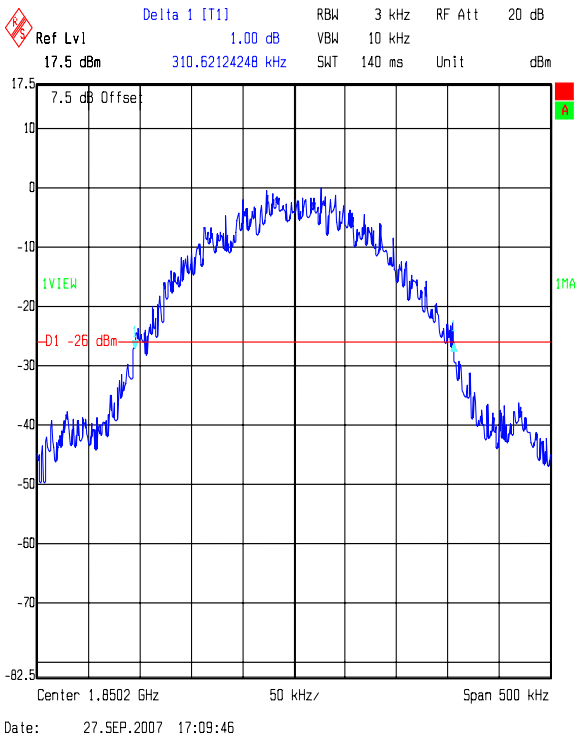
Tests were performed in accordance with FCC Part 24.238.

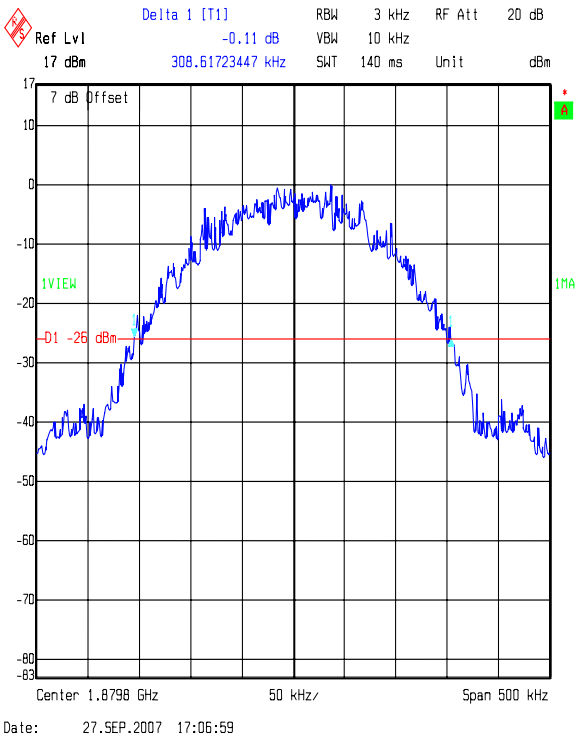
Results:

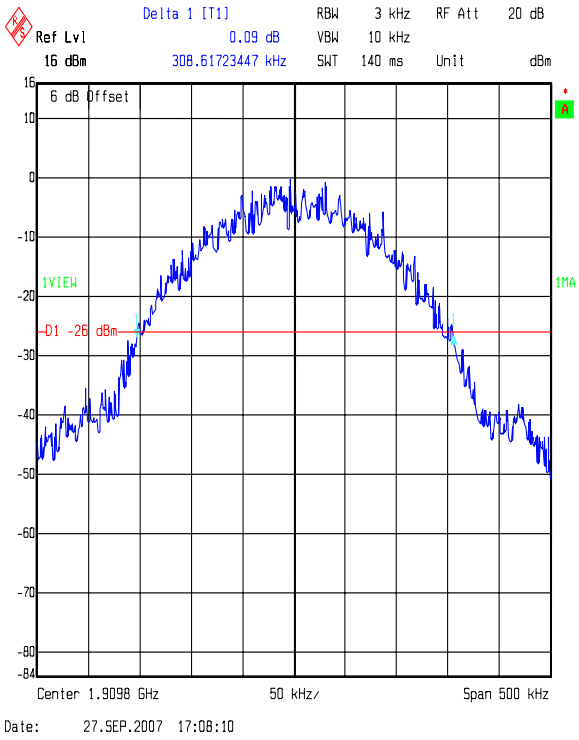
Channel	Frequency (MHz)	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	Occupied Bandwidth (kHz)
Bottom	1850.2	3.0	10.0	310.621
Middle	1879.8	3.0	10.0	308.617
Top	1909.8	3.0	10.0	308.617

Test of: Panasonic Mobile Comms Dev of Europe Ltd
NTT DoCoMo P905i
To: FCC Part 24: 2006 (Subpart E)

Transmitter Occupied Bandwidth (Continued)







7.2.8. Transmitter Out of Band Radiated Emissions

Results:

Bottom Channel

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)
3700.4	-54.1	-13.0	41.1

Middle Channel

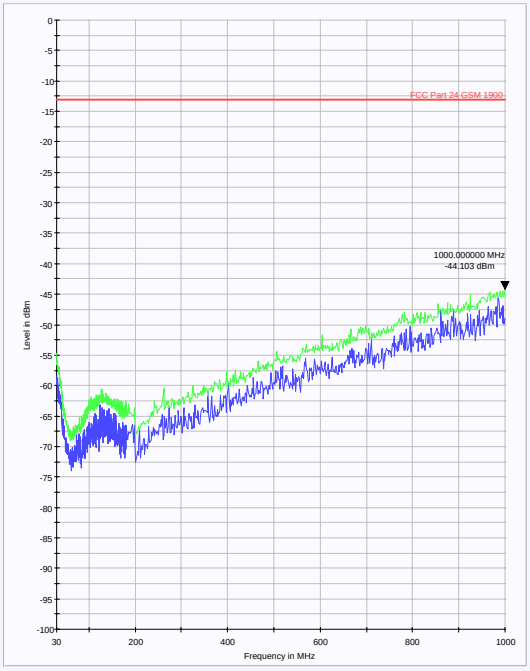
Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)
3759.6	-54.3	-13.0	41.3

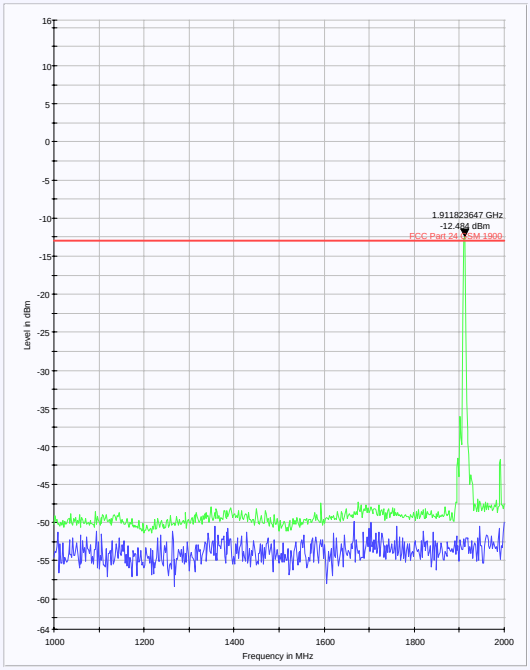
Top Channel

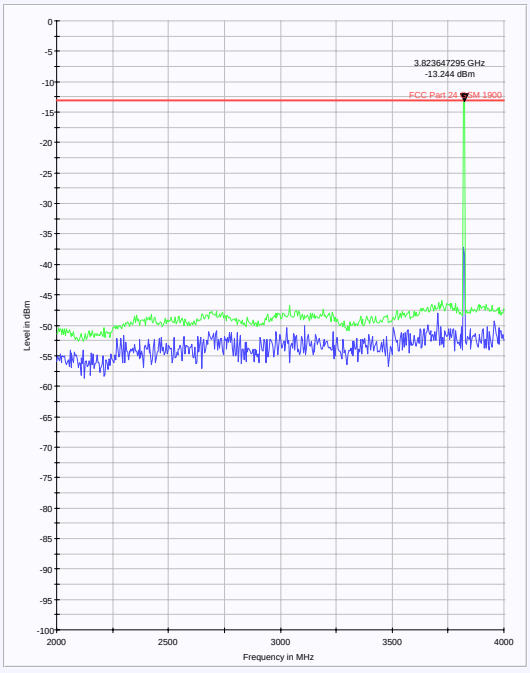
Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)
3819.6	-54.7	-13.0	41.7

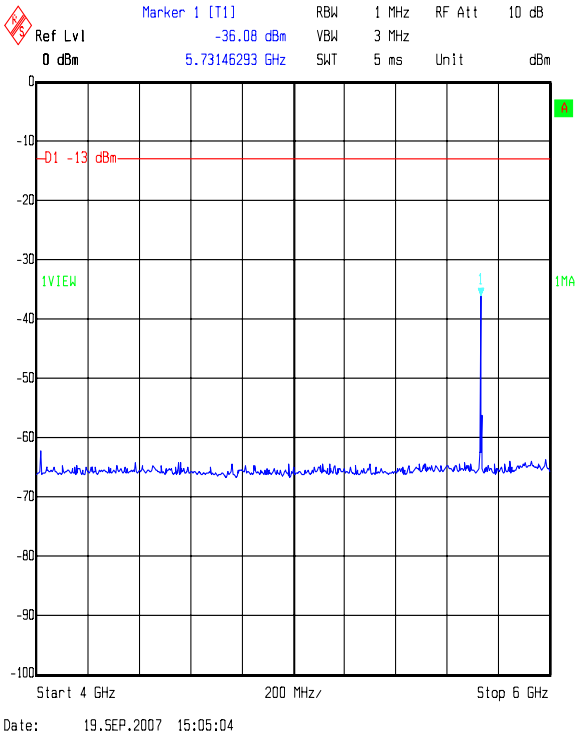
Test of: Panasonic Mobile Comms Dev of Europe Ltd
NTT DoCoMo P905i
To: FCC Part 24: 2006 (Subpart E)

Transmitter Out of Band Radiated Emissions (Continued)





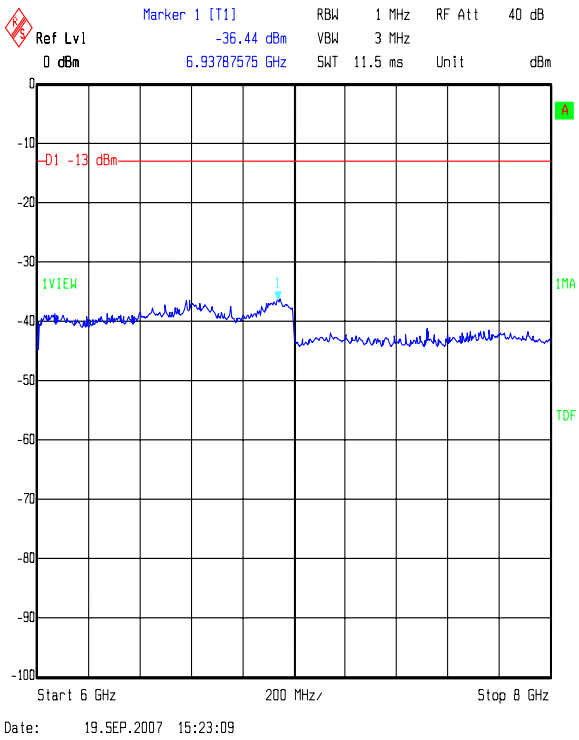


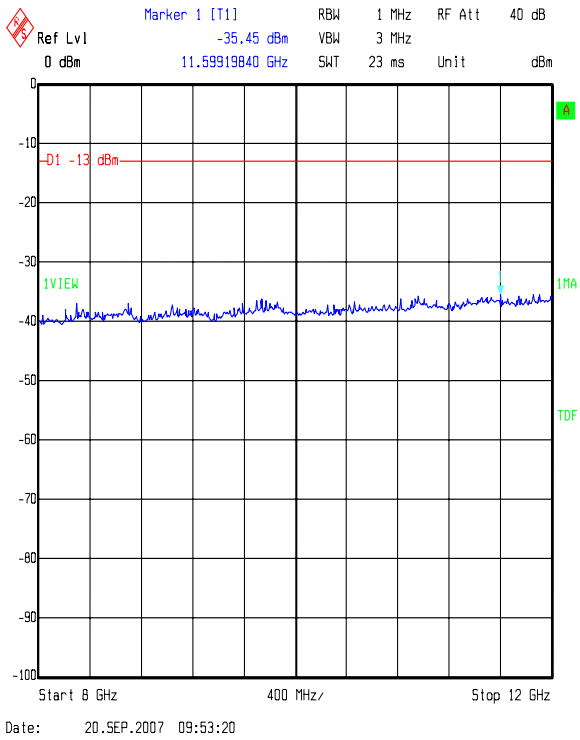


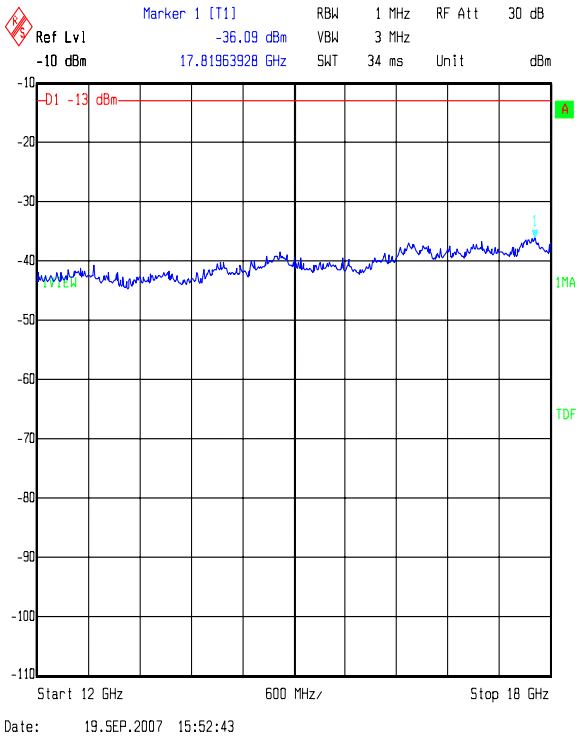
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

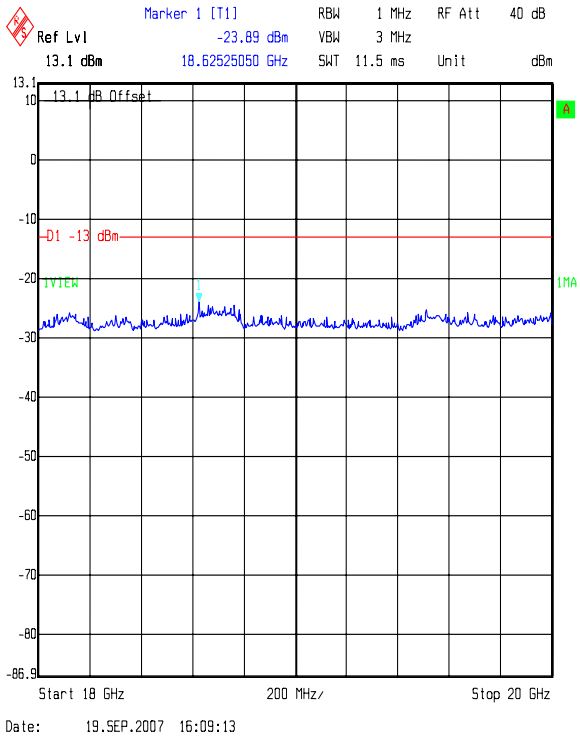
Test of: Panasonic Mobile Comms Dev of Europe Ltd
NTT DoCoMo P905i
To: FCC Part 24: 2006 (Subpart E)

Transmitter Out of Band Radiated Emissions (Continued)









Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

7.2.9. Transmitter Radiated Emissions at Band Edges

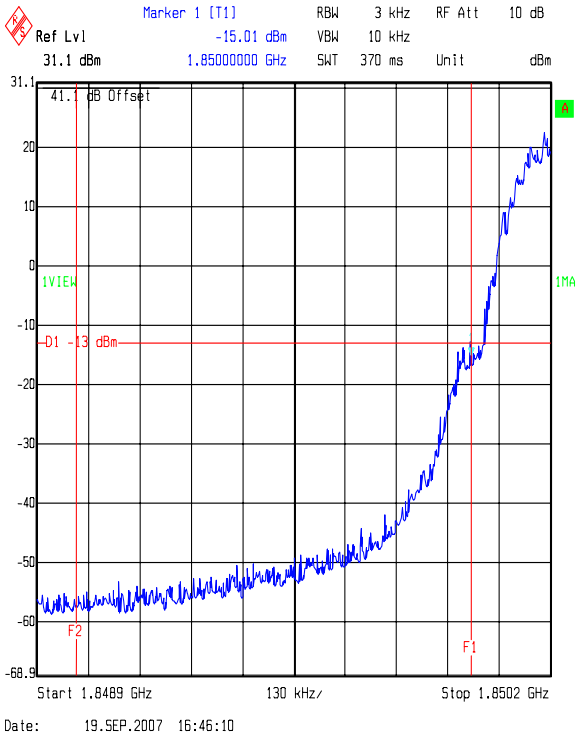
Results:

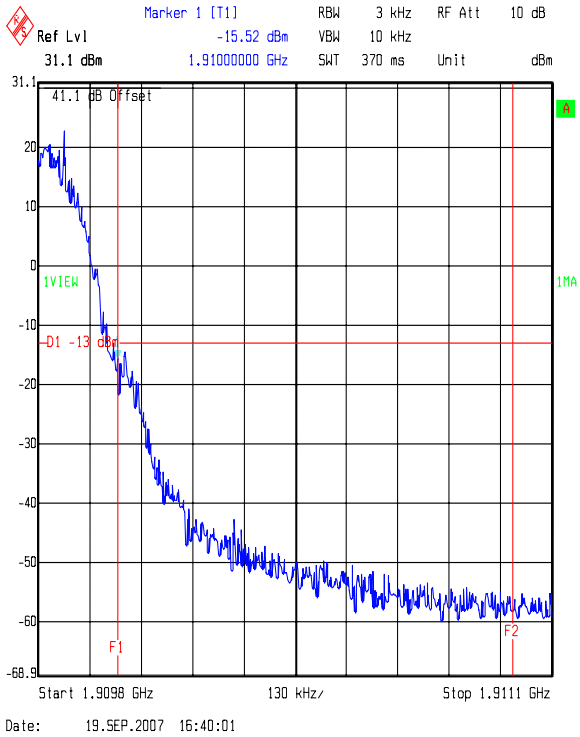
Bottom Band Edge

Frequency (MHz)	Spurious Emission (dBm)	Limit (dBm)	Margin (dB)
1850	-15.0	-13.0	2.0

Top Band Edge

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)
1910	-15.5	-13.0	2.5





8. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently, the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor, such that a confidence level of approximately 95% is maintained. For the purposes of this document “approximately” is interpreted as meaning “effectively” or “for most practical purposes”.

Measurement Type	Range	Confidence Level (%)	Calculated Uncertainty
AC Conducted Spurious Emissions	0.15 MHz to 30 MHz	95%	±3.72 dB
Effective Isotropic Radiated Power (EIRP)	Not applicable	95%	±2.54 dB
Frequency Stability	Not applicable	95%	±11.4 ppm
Occupied Bandwidth	824 to 849 MHz	95%	±11.4 ppm
Radiated Spurious Emissions	30 MHz to 1000 MHz	95%	±4.64 dB
Radiated Spurious Emissions	1 GHz to 26 GHz	95%	±2.94 dB

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty, the published guidance of the appropriate accreditation body is followed.

Appendix 1. Test Equipment Used

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Last Calibrated	Cal. Interval (Months)
A028	Horn Antenna	Eaton	91888-2	304	08 Jun 2006	36
A031	Horn Antenna	Eaton	91889-2	557	08 Jun 2006	36
A1037	Bilog Antenna	Chase EMC Ltd	CBL6112B	2413	20 Sep 2006	12 (Note 1)
A1069	LISN	Rohde & Schwarz	ESH3-Z5	837469/012	09 Feb 2007	12
A1100	Directional Coupler	Hewlett Packard	HP87300C	3239A01058	Calibrated before use	12
A1491	Attenuator	M/A	FSC 96341	2082-6173-10	Calibrated before use	12
A1534	Preamplifier	Hewlett Packard	8449B OPT H02	3008A00405	Calibrated before use	12
A1830	Pulse Limiter	Rhode & Schwarz	ESH3-Z2	100668	08 Jan 2007	12
A253	Horn Antenna	Flann Microwave	12240-20	128	17 Nov 2006	36
A254	Horn Antenna	Flann Microwave	14240-20	139	17 Nov 2006	36
A255	Horn Antenna	Flann Microwave	16240-20	519	17 Nov 2006	36
A256	Horn Antenna	Flann Microwave	18240-20	400	17 Nov 2006	36
A259	Bilog Antenna	Chase	CBL6111	1513	13 Mar 2007	12
A276	OATS Positioning Controller	Rohde & Schwarz	HCC		Calibration not required	12
A436	Horn Antenna	Flann	20240-20	330	24 Apr 2006	36
C1152	Cable	The Workhorse	WHU26-3636-036	None	05 Jun 2007	12
C1153	Cable	The Workhorse	WHU26-3636-060	None	05 Jun 2007	12
C1154	Cable	The Workhorse	WHU26-3636-060	None	05 Jun 2007	12
C1165	Cable	Rosenberger	FA210A1020007070	43189-1	05 Jun 2007	12
C1167	Cable	Rosenberger	FA210A1030007070	43190-01	05 Jun 2007	12
C1268	Cable	Rosenberger	FA210A0075008080	49356-1	Calibrated before use	-
C151	Cable	Rosenberger	UFA210A-1-1181-70x70	None	Calibrated before use	-

Test of: **Panasonic Mobile Comms Dev of Europe Ltd**
NTT DoCoMo P905i
To: **FCC Part 24: 2006 (Subpart E)**

Test Equipment Used (Continued)

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Last Calibrated	Cal. Interval (Months)
C160	Cable	Rosenberger	UFA210A-1-1181-70x70	None	Calibrated before use	-
C340	Cable	Andrews	None	None	Calibrated before use	-
C348	Cable	Rosenberger	UFA210A-1-1181-70x70	2993	Calibrated before use	-
C363	Cable	Rosenberger	RG142	None	Calibrated before use	-
C460	Cable	Rosenberger	UFA210A-1-1182-704704	98H0304	Calibrated before use	-
C468	Cable	Rosenberger	UFA210A-1-3937-504504	98L0440	Calibrated before use	-
E013	Environmental chamber	Sanyo	ATMOS chamber	None	Calibration not required	-
M024	Spectrum Monitor	Rohde & Schwarz	EZM	873 952/006	Calibrated before use	12
M044	ESVP Receiver	Rohde & Schwarz	ESVP	891 845/026	06 Mar 2007	12
M1242	Spectrum Analyser	Rohde & Schwarz,	FSEM30	845986/022	08 Sep 2006	12 (Note 1)
M1263	Test Receiver	Rohde & Schwarz	ESIB7	100265	25 Jan 2007	12
M1269	Multimeter	Fluke	179	90250210	05 Mar 2007	12
M127	Spectrum Analyser	Rohde & Schwarz	FSEB 30	842 659/016	15 Aug 2007	12
M173	Controller for site 1	R.H.Electrical Services	RH351	3510020	Calibration not required	-
S021	Power Supply	Thurlby Thandar Instruments	CPX200	061034	Calibration not required	-
S201	Open Area Test Site	RFI	1	None	25 May 2007	12
S202	Open Area Test Site	RFI	2	S202-15011990	17 Nov 2006	12
S212	Screened Room	RFI	12	None	Calibrated before use	-

Note 1: The calibration for this item was extended for an additional month; therefore the calibration was still valid at the time of testing.

NB In accordance with UKAS requirements, all the measurement equipment is on a calibration schedule.