



**FCC CFR47 PART 22H AND PART 24E
CERTIFICATION TEST REPORT**

FOR

DUAL BAND 1XR TT CDMA PHONE WITH BLUETOOTH

MODEL NUMBER: K38-01

FCC ID: OVFKWC-K3801

REPORT NUMBER: 08U11977-1

ISSUE DATE: AUGUST 6, 2008

Prepared for
**KYOCERA WIRELESS
10300 CAMPUS POINT DRIVE
SAN DIEGO, CA 92121, U.S.A.**

Prepared by
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	08/06/08	Initial Issue	T. Chan

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: KYOCERA WIRELESS
10300 CAMPUS POINT DRIVE
SAN DIEGO, CA 92121, U.S.A.

EUT DESCRIPTION: DUAL BAND 1XR TT CDMA PHONE WITH BLUETOOTH

MODEL: K38-01

SERIAL NUMBER: FFLM0000003277

DATE TESTED: JULY 30 -31, 2008

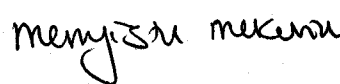
APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 22 SUBPART H	PASS
FCC PART 24 SUBPART E	PASS

Compliance Certification Services, Inc. (CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All expressions of Pass/Fail in this report are opinions expressed by CCS based on interpretations of the test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document. No part of this report may be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any government agency.

Approved & Released For CCS By:

Tested By:



THU CHAN
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

MENGISTU MEKURIA
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA/EIA 603C (2004), FCC CFR 47 Part 2, FCC CFR 47 Part 22H, 24E.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA. The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Radiated Emission, 30 to 200 MHz	+/- 3.3 dB
Radiated Emission, 200 to 1000 MHz	+4.5 / -2.9 dB
Radiated Emission, 1000 to 2000 MHz	+4.5 / -2.9 dB
Radiated Emission, Above 2000 MHz	+/- 4.3 dB
Power Line Conducted Emission	+/- 2.9 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Bluetooth featured Dual band 1xRTT CDMA Phone that manufactured by Kyocera Wireless Corporations.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak ERP and EIRP output powers as follows:

824 to 849 MHz Authorized Band

Frequency Range (MHz)	Modulation	ERP Peak Power (dBm)	ERP Peak Power (mW)
Low CH - 824.70	CDMA2000	29.4	871.0
Mid CH - 836.52		30.5	1122.0
High CH - 848.31		29.4	871.0

1850 to 1910 MHz Authorized Band

Frequency Range (MHz)	Modulation	EIRP Peak Power (dBm)	EIRP Peak Power (mW)
Low CH - 1851.25	CDMA2000	30.6	1148.2
Mid CH - 1880.00		31.4	1380.4
High CH - 1908.75		29.9	977.2

5.3. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent Communication Test Set.

5.4. WORST-CASE CONFIGURATION AND MODE

The worst-position was the EUT with highest emissions. To determine the worst-case, the EUT was investigated for X, Y, and Z-Positions, and the worst position among X, Y, and Z with battery charger. After the investigations, the worst-position was turned out to be an X-position with Battery Charger and Y-position with Battery Charger for Cell and PCS bands respectively.

PROCEDURE USED TO ESTABLISH TEST SIGNAL

3G-CDMA2000 1xRTT

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

<u>Application</u>	<u>Rev, License</u>
CDMA2000 Mobil Test	B.10.11, L

1xRTT

- Call Setup > Shift & Preset
- Protocol Rev > 6 (IS-2000-0)
- Radio Config (RC) > RC3 (Fwd3, Rvs3)
- FCH Service Option (SO) Setup > 55
- Traffic Data Rate > Full
- TDSO SCH Info > F-SCH Parameters > F-SCH Data Rate > 153.6 kbps
> R-SCH Parameters > R-SCH Data Rate > 153.6 kbps
- Cell Info > Cell Parameters > System ID (SID) > 6503
> Network ID (NID) > 0

Once "Active Cell" show "Connected" then change "Rvs Power Ctrl" from "Active bits" to "**All Up bits**" to get the maximum power.

Worst-case Measurement Result @ Low, Middle and High Channel

Worst-case Measurement Result for Low, Middle and High Channel under Radio Configuration RC3 and Service Option 55.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
AC/DC Adapter	Kyocera	TXTVL10128	8125-002	DoC

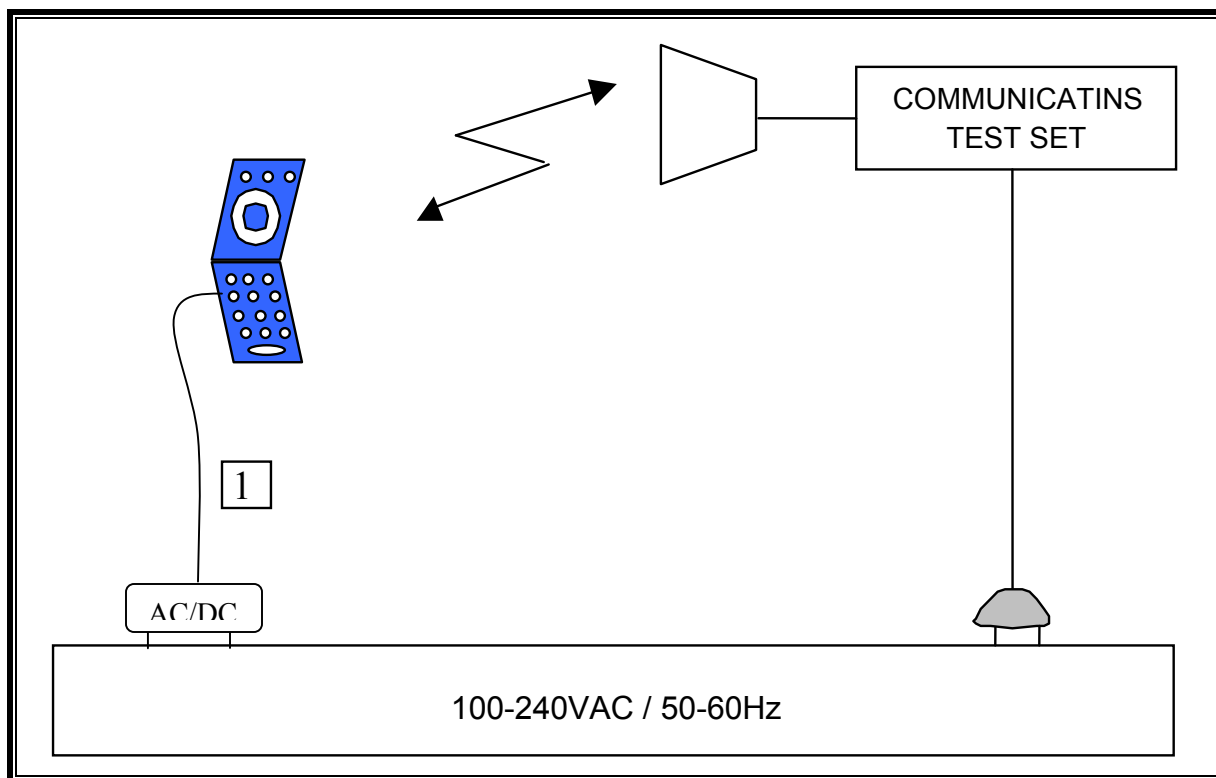
I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	DC Input	1	Mini-USB	Un-Shielded	2.0 m	N/A

TEST SETUP

The EUT is a CDMA phone and is tested as a standalone configuration. Communications Test Set is used to link the device under test.

RADIATED TEST SETUP DIAGRAM



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset	Cal Due
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	08/05/09
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	09/29/08
Antenna, Horn, 18 GHz	ETS	3117	C01005	04/22/09
Horn	EMCO	3115	C00872	04/22/09
Dipole	Speag	D900V2	NA	11/16/08
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00945	05/30/09
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02689	CNR
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR
Signal Generator	R & S	SMP04	C00953	02/16/09
Communications Test Set	R & S	CMU200	C001131	04/16/09
Communications Test Set	Agilent / HP	E5515C	C01086	06/16/09

7. LIMITS AND RESULTS

7.1. RADIATED OUTPUT POWER

LIMIT

22.913(a) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(b) Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 2.2.17

824 to 849 MHz Authorized Band

Frequency Range (MHz)	Modulation	ERP Peak Power (dBm)	ERP Peak Power (mW)
Low CH - 824.70	CDMA2000	29.4	871.0
Mid CH - 836.52		30.5	1122.0
High CH - 848.31		29.4	871.0

1850 to 1910 MHz Authorized Band

Frequency Range (MHz)	Modulation	EIRP Peak Power (dBm)	EIRP Peak Power (mW)
Low CH - 1851.25	CDMA2000	30.6	1148.2
Mid CH - 1880.00		31.4	1380.4
High CH - 1908.75		29.9	977.2

RESULTS

CELL BAND CDMA OUTPUT POWER (ERP)

High Frequency Substitution Measurement									
Compliance Certification Services, Fremont 5m Chamber A									
Company:		KYOCERA WIRELESS							
Project #:		08U11977							
Date:		7/30/2008							
Test Engineer:		MENGISTU MEKURIA							
Configuration:		EUT(K38-01) ALONE							
Mode:		TX CDMA CELL BAND							
Test Equipment:									
Receiving: Sumol T130, and 5m Chamber N-type Cable (Setup this one for testing EUT)									
Substitution: Dipole S/N: 00022117, and 4ft SMA Cable Warehouse S/N: 187208002.									
f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.70	98.4	V	23.9	0.5	0.0	23.4	38.5	-15.0	
824.70	106.1	H	29.9	0.5	0.0	29.4	38.5	-9.0	
836.52	98.4	V	23.7	0.6	0.0	23.1	38.5	-15.4	
836.52	106.6	H	31.1	0.6	0.0	30.5	38.5	-8.0	
848.31	97.3	V	23.3	0.7	0.0	22.6	38.5	-15.9	
848.31	105.9	H	30.1	0.7	0.0	29.4	38.5	-9.0	
Rev. 1.24.7									

PCS BAND CDMA OUTPUT POWER (EIRP)

High Frequency Fundamental Measurement									
Compliance Certification Services, Fremont 5m Chamber C									
Company:		KYOCERA WIRELESS							
Project #:		08U11977							
Date:		7/31/2008							
Test Engineer:		MENGISTU MEKURIA							
Configuration:		EUT(K38-01) ALONE							
Mode:		TX CDMA PCS BAND							
Test Equipment:									
Receiving: Horn T60, and 12ft S/N: 197209005 (Setup this one for testing EUT) Thanh Cable									
Substitution: Horn T73 Substitution, 4ft SMA Cable Warehouse S/N: 177081002, Thanh cable									
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch									
1.851	100.2	V	23.2	0.9	8.3	30.6	33.0	-2.5	
1.851	94.9	H	17.9	0.9	8.3	25.3	33.0	-7.7	
1.880									
1.880	100.4	V	23.9	0.9	8.3	31.4	33.0	-1.6	
1.880	95.9	H	20.3	0.9	8.3	27.7	33.0	-5.3	
High Ch									
1.909	98.3	V	22.4	0.9	8.4	29.9	33.0	-3.1	
1.909	95.2	H	19.2	0.9	8.4	26.7	33.0	-6.4	
Rev. 1.24.7									

7.2. FIELD STRENGTH OF SPURIOUS EMISSION

LIMIT

§22.917 (e) and §24.238(a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

§24.238 (a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 3.2.12 & FCC 22.917 (b), FCC 24.238 (b)

RESULTS

Note: No emissions were found within 30-1000MHz & after the seventh harmonic for CELL and fifth for harmonic PCS bands of 20dB below the system noise.

CELL BAND CDMA SPURIOUS & HARMONIC (ERP)

High Frequency Substitution Measurement
 Compliance Certification Services, Fremont 5m A-Chamber

Company: KYOCERA WIRELESS
 Project #: 08U11977
 Date: 7/31/2008
 Test Engineer: MENGISTU MEKURIA
 Configuration: EUT(K38-01) ALONE
 Mode: TX CDMA CELL BAND

Test Equipment:

EMCO Horn 1-18GHz Horn > 18GHz Limit High Pass Filter

T60; S/N: 2238 @3m FCC 22

Hi Frequency Cables

(2 ft) (2~3 ft) (4~6 ft) (12 ft)

Pre-amplifier 1-26GHz Pre-amplifier 26-40GHz

T144 Miteq 3008A01

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch. (824.7 MHz)										
1.649	74.0	V	-33.1	3.8	7.1	4.9	-32.0	-13.0	-19.0	
2.474	64.0	V	-40.3	4.9	9.3	7.1	-38.0	-13.0	-25.0	
3.299	53.9	V	-46.5	5.6	9.4	7.3	-44.8	-13.0	-31.8	
4.124	54.8	V	-42.6	6.3	10.0	7.8	-41.1	-13.0	-28.1	
4.948	58.5	V	-37.8	7.0	11.0	8.8	-36.0	-13.0	-23.0	
5.773	44.3	V	-49.3	7.5	11.4	9.2	-47.5	-13.0	-34.5	
1.649	67.7	H	-38.6	3.8	7.1	4.9	-37.6	-13.0	-24.6	
2.474	56.4	H	-47.7	4.9	9.3	7.1	-45.4	-13.0	-32.4	
3.299	55.7	H	-44.6	5.6	9.4	7.3	-42.9	-13.0	-29.9	
4.124	50.6	H	-46.5	6.3	10.0	7.8	-44.9	-13.0	-31.9	
4.948	56.3	H	-39.8	7.0	11.0	8.8	-37.9	-13.0	-24.9	
5.773	45.9	H	-46.7	7.5	11.4	9.2	-45.0	-13.0	-32.0	
Mid Ch. (836.52 MHz)										
1.670	72.5	V	-34.6	3.9	7.1	5.0	-33.4	-13.0	-20.4	
2.506	60.5	V	-43.6	4.9	9.3	7.1	-41.4	-13.0	-28.4	
3.346	54.2	V	-46.0	5.6	9.5	7.3	-44.3	-13.0	-31.3	
4.183	50.3	V	-47.0	6.3	10.0	7.9	-45.5	-13.0	-32.5	
5.019	57.0	V	-38.0	7.1	11.0	8.9	-36.1	-13.0	-23.1	
5.857	45.4	V	-48.2	7.5	11.5	9.4	-46.4	-13.0	-33.4	
1.670	65.0	H	-41.3	3.9	7.1	5.0	-40.2	-13.0	-27.2	
2.506	51.0	H	-52.9	4.9	9.3	7.1	-50.7	-13.0	-37.7	
3.346	55.5	H	-44.7	5.6	9.5	7.3	-43.0	-13.0	-30.0	
4.183	46.0	H	-51.1	6.3	10.0	7.9	-49.5	-13.0	-36.5	
5.019	54.7	H	-39.3	7.1	11.0	8.9	-37.4	-13.0	-24.4	
5.857	44.4	H	-48.2	7.5	11.5	9.4	-46.4	-13.0	-33.4	
Hi Ch. (848.31 MHz)										
1.697	73.5	V	-33.4	3.9	7.2	5.1	-32.3	-13.0	-19.3	
2.545	61.5	V	-42.4	4.9	9.3	7.1	-40.2	-13.0	-27.2	
3.393	55.1	V	-44.9	5.7	9.5	7.3	-43.3	-13.0	-30.3	
4.242	51.8	V	-45.5	6.4	10.1	8.0	-44.0	-13.0	-31.0	
5.090	55.7	V	-38.9	7.1	11.0	8.9	-37.1	-13.0	-24.1	
5.938	45.7	V	-47.9	7.6	11.6	9.5	-46.0	-13.0	-33.0	
1.697	65.9	H	-40.4	3.9	7.2	5.1	-39.2	-13.0	-26.2	
2.545	51.5	H	-52.2	4.9	9.3	7.1	-50.0	-13.0	-37.0	
3.393	53.7	H	-46.3	5.7	9.5	7.3	-44.6	-13.0	-31.6	
4.242	45.1	H	-51.8	6.4	10.1	8.0	-50.3	-13.0	-37.3	
5.090	51.1	H	-42.5	7.1	11.0	8.9	-40.7	-13.0	-27.7	
5.938	44.2	H	-48.3	7.6	11.6	9.5	-46.4	-13.0	-33.4	

Rev. 4.12.7

PCS BAND CDMA SPURIOUS & HARMONIC (EIRP)

High Frequency Substitution Measurement											
Compliance Certification Services, Fremont 5m A-Chamber											
Company:		KYOCERA WIRELESS									
Project #:		08U11977									
Date:		7/31/2008									
Test Engineer:		MENGISTU MEKURIA									
Configuration:		EUT(K38-01) ALONE									
Mode:		TX CDMA PCS BAND									
Test Equipment:											
EMCO Horn 1-18GHz			Horn > 18GHz				Limit		<input checked="" type="checkbox"/> High Pass Filter		
T60; S/N: 2238 @3m							FCC 24				
Hi Frequency Cables											
<input type="checkbox"/> (2 ft)			<input type="checkbox"/> (2~3 ft)		<input type="checkbox"/> (4~6 ft)		<input checked="" type="checkbox"/> (12 ft)				
Pre-amplifier 1-26GHz						Pre-amplifier 26-40GHz					
T144 Miteq 3008A01											
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes	
Low Ch. (1851.25 MHz)											
3.703	44.5	V	-54.4	5.9	9.7	7.5	-50.7	-13.0	-37.7		
5.554	47.7	V	-45.7	7.4	11.0	8.9	-42.1	-13.0	-29.1		
7.405	47.5	V	-43.3	8.3	12.0	9.8	-39.6	-13.0	-26.6		
9.256	48.7	V	-41.0	9.3	12.7	10.6	-37.6	-13.0	-24.6		
3.703	44.8	H	-54.0	5.9	9.7	7.5	-50.3	-13.0	-37.3		
5.554	48.5	H	-43.8	7.4	11.0	8.9	-40.2	-13.0	-27.2		
7.405	48.7	H	-41.2	8.3	12.0	9.8	-37.5	-13.0	-24.5		
9.256	48.8	H	-40.9	9.3	12.7	10.6	-37.5	-13.0	-24.5		
Mid Ch. (1880 MHz)											
3.760	45.1	V	-53.5	6.0	9.7	7.5	-49.8	-13.0	-36.8		
5.640	45.3	V	-48.1	7.4	11.2	9.0	-44.4	-13.0	-31.4		
7.520	45.3	V	-45.2	8.3	12.0	9.8	-41.5	-13.0	-28.5		
9.400	48.4	V	-41.0	9.4	12.7	10.6	-37.7	-13.0	-24.7		
3.760	45.2	H	-53.4	6.0	9.7	7.5	-49.7	-13.0	-36.7		
5.640	45.3	H	-47.2	7.4	11.2	9.0	-43.4	-13.0	-30.4		
7.520	45.5	H	-44.2	8.3	12.0	9.8	-40.5	-13.0	-27.5		
9.400	45.1	H	-44.3	9.4	12.7	10.6	-41.0	-13.0	-28.0		
Hi Ch. (1908.75 MHz)											
3.818	45.8	V	-52.7	6.0	9.7	7.6	-49.0	-13.0	-36.0		
5.726	47.9	V	-45.7	7.5	11.3	9.2	-41.9	-13.0	-28.9		
7.635	45.6	V	-44.7	8.4	12.0	9.8	-41.1	-13.0	-28.1		
9.544	48.6	V	-40.5	9.6	12.7	10.6	-37.3	-13.0	-24.3		
3.818	46.2	H	-52.1	6.0	9.7	7.6	-48.4	-13.0	-35.4		
5.726	48.2	H	-44.3	7.5	11.3	9.2	-40.5	-13.0	-27.5		
7.635	46.4	H	-43.1	8.4	12.0	9.8	-39.5	-13.0	-26.5		
9.544	47.8	H	-41.3	9.6	12.7	10.6	-38.2	-13.0	-25.2		
Rev. 4.12.7											