

# Electromagnetic Compatibility Test Report

Amendment to Test Report No: MOT 091106

Issued on: December 14, 2006

## Product Name HC700L - Handheld Computer Model: F3129AG FCC ID: AZ489FT7028 IC: 109U-89FT7028

## Tested According to FCC 47 CFR Part 15, Subparts B & C

### **Tests Performed for Motorola Israel Ltd.** 3, Kremenitski Street, Tel Aviv, Israel Tel: (972) 3-565 9581

## QualiTech EMC Laboratory

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## **Test personnel**

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Report Reviewed By	Y. Zucker QA and Lab. Mana QualiTech EMC La	ger aboratory	



#### **Bluetooth:**

#### **Spurious Radiated Emissions, Restricted Bands**

Reference document:	47 CFR §15.205 & DA 00-705					
Test Requirements:	Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in section 15.209(a) (See section 15.205(c).					
Test setup:	See Sec. 2.2					
Operating conditions:	Under normal test conditions	Pass				
Method of testing:	Radiated					
S.A. Settings:	f <1GHz: RBW: 120kHz,VBW: 1MHz f>1GHz: RBW: 1MHz, VBW: 3MHz					
Hopping function:	Disabled					
Environment conditions:	Ambient Temperature:22°cRelative Humidity:Atmosphe 101		Atmospheric Pressure: 1011.4 hPa			
Test Result:	See below					

#### Test results:

All measurements were done in horizontal and vertical polarizations; the results show the worst case

Middle channel, 2443 MHz								
Spurious Frequency [MHz]	Detector type	Spurious level [dBµV/m]	Limit [dBµV/m]	Reference Plot	Result			
4886	Peak	39.02	74	Plot 2	Pass			
4886	Average	25.23	54	Plot 2	Pass			



### WLAN 802.11b/g:

#### **Spurious Radiated Emissions, Restricted Bands**

Reference document:	47 CFR §15.247 (d) & §15.205					
Test Requirements:	Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in section 15.209(a) (See section 15.205(c)).					
Test setup:	See Sec. 2.2					
Method of testing:	Radiated	Pass				
Operating conditions:	Under normal test conditions					
S.A. Settings:	RBW: 1MHz, VBW: 3MHz, Average: VBW: 10Hz					
Environment conditions:	Ambient Temperature: 22°c	Relative Humidity: 48%	Atmospheric Pressure: 1011.4 hPa			
Test Result:	See below					

#### Test results:

Frequency [MHz]	Data Rate [Mbps]	Emission Frequency [MHz]	Detector Type	Emission Level [dBµV/m]	Limit [dBµV/m]	Test results		
802.11b Mode								
All readings were at least 15 db below the limit								
802.11g Mode								
All readings were at least 15 db below the limit								

Note: Spurious Emission  $[dB\mu V/m]$  = measured  $[dB\mu V]$  + Correction-factor [dB (1/m)]Correction Factor = Antenna factor + Cable Loss





#### Simultaneously Operated: Bluetooth (2443 MHz) & WLAN 802.1 b 11 Mbps channel 6

#### Middle frequency **Horizontal & Vertical Polarization** Plot 1



MKR 4.876 GHz







#### Horizontal & Vertical Polarization Plot 3

19:31:20 30 OCT 2006 Ø 09:31:34 OCT 18, 2002 08:47:29 DEC 06, 2002 ACTV DET: PEAK MEAS DET: PEAK QP AVG MKR 13.94 GHz 45.12 dB<sub>µ</sub>V/m



#### Horizontal & Vertical Polarization Plot 4

A Chi	IGIN							Λ	Akr4 24 4	575 CH-
Ref 81.9	99 dBµV/	/m	# <b>A</b>	Atten 5 dE	3				46.85 c	<b>575 Gнz</b> <b>IB</b> µV/m
Peak										
Log 10										
dB/										
									a man	\$ mon
DI 54.0	Marke	€k~∿∿~∧		MMM	mm	million	- Arrow A	www.w		
<b>dB</b> μV/m	24.45	75000	000 G	HZ						
	46.8	5 dBμ	V/m							
V1 S2										
S3 FC										
PA										
Start 18	8 GHz								Stop	o 25 GHz
Res BW	V 1 MHz				VBW 3 M	IHz		Sweer	o 70 ms (4	401 pts)



#### Simultaneously Operated: Bluetooth (2443 MHz) & WLAN 802.1 g 54 Mbps channel 6

#### Middle frequency Horizontal & Vertical Polarization Plot 5



#### Horizontal & Vertical Polarization Plot 6

12:18:18 01 NOV 2006 Ø 09:31:34 OCT 18, 2002 08:47:29 DEC 06, 2002 ACTV DET: PEAK MEAS DET: PEAK QP AVG MKR 4.887 GHz 37.83 dB<sub>µ</sub>V/m





#### Horizontal & Vertical Polarization Plot 7

12:21:03 01 NOV 2006 ☆ 09:31:34 OCT 18, 2002 08:47:29 DEC 06, 2002 ACTV DET: PEAK MEAS DET: PEAK QP AVG MKR 14.05 GHz 45.44 dB<sub>µ</sub>V/m



#### Horizontal & Vertical Polarization Plot 8





#### Horizontal & Vertical Polarization 3 channels simultaneously Plot 9



#### Horizontal & Vertical Polarization 3 channels simultaneously Plot 10

[33] 12:22:27 NOV 01, 2006 RE CLASS B 16:00:35 JAN 16, 2002 ACIV DEI: PEAK MEAS DEI: PEAK OP AVC MKR 1.0000 GHz 41.56 dBµV/m





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