

Electromagnetic Compatibility Test Report

Amendment to Test Report No: MOT 181006

Issued on: December 14, 2006

Product Name

HC700-iDen

Model: F3130A, F3162A

FCC ID: AZ489FT7017

IC: 109U-89FT7017

Tested According to

FCC 47 CFR Part 15, Subparts B & C

FCC 47 CFR, Part 90 & Part 15.247

Industry Canada ICES-003, RSS-119, and RSS-210

Tests Performed for

Motorola Israel Ltd.

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Test personnel


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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	Pass	
Operating conditions:	Under normal test conditions		
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°C	Relative Humidity: 48%	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
4887	Peak	38.19	74	Plot 10	Pass
4887	Average	23.58	54	Plot 10	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	Pass	
Method of testing:	Radiated		
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:

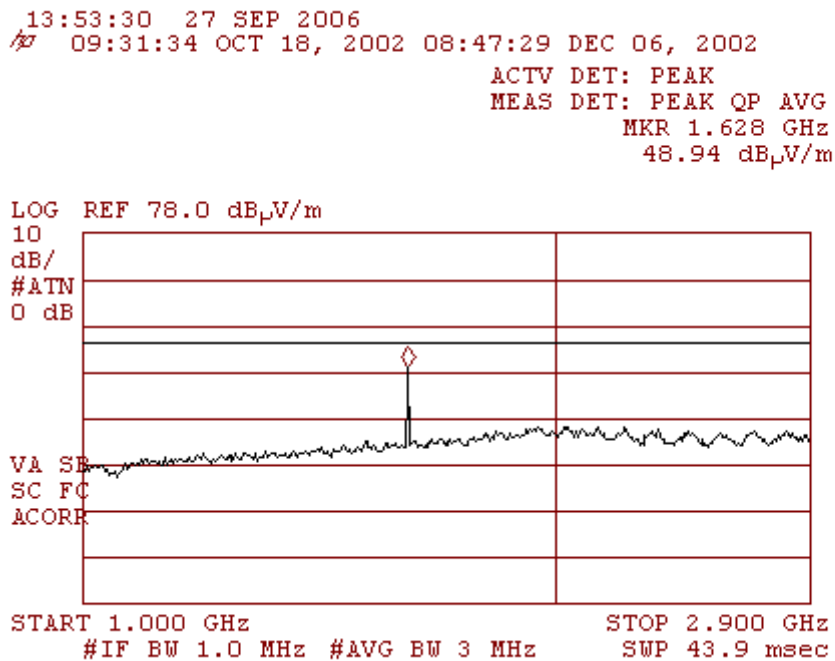
Frequency [MHz]	Data Rate [Mbps]	Emission Frequency [MHz]	Detector Type	Pol. V/H	Emission Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]
802.11b Mode							
2437	All readings were at least 15 db below the limit						
802.11g Mode							
2437	All readings were at least 15 db below the limit						

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

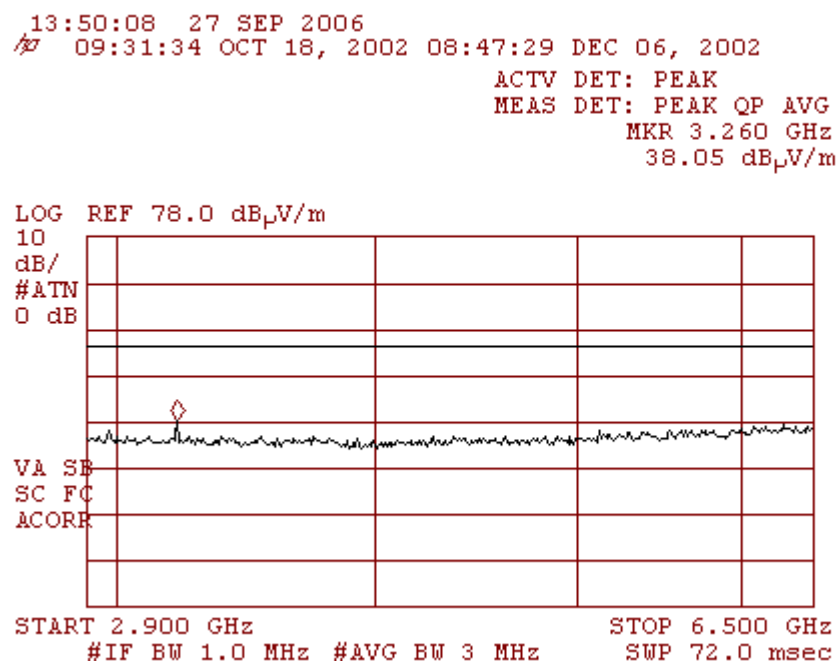
Test Plots

Simultaneously Operated: Bluetooth (2443 MHz) +iDen 800(806.0625MHz)

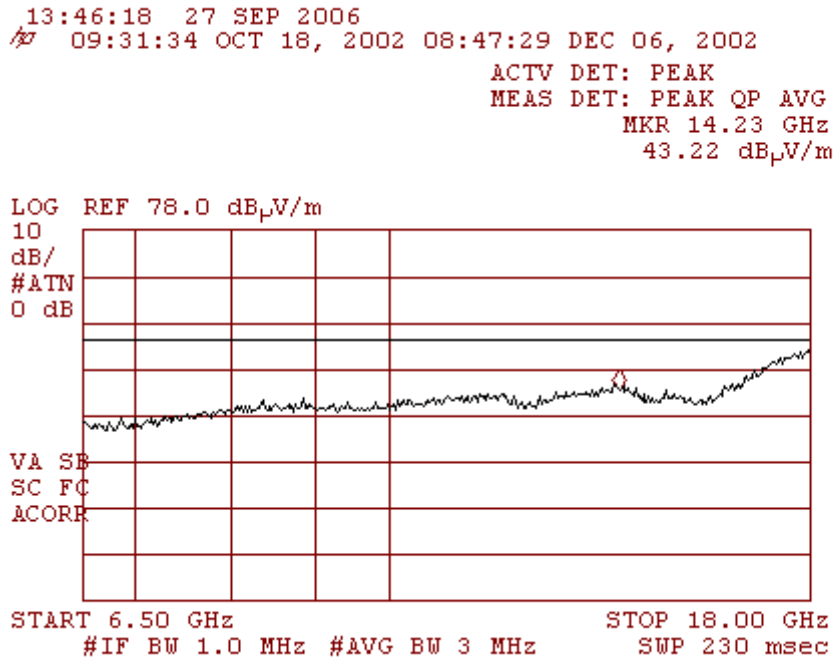
Middle frequency Horizontal & Vertical Polarization Plot 1



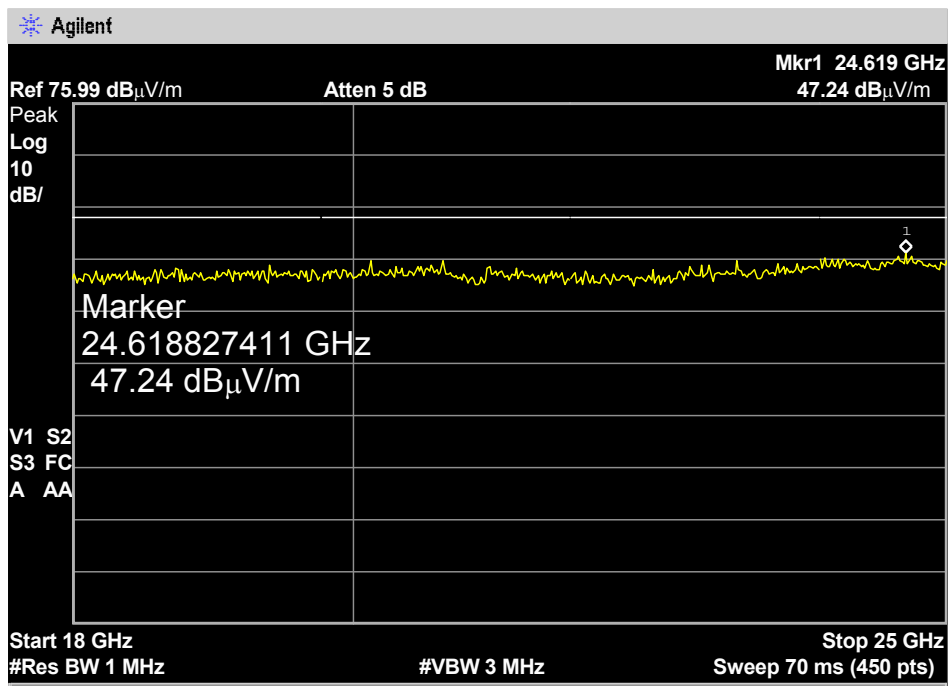
Horizontal & Vertical Polarization Plot 2



Horizontal & Vertical Polarization Plot 3

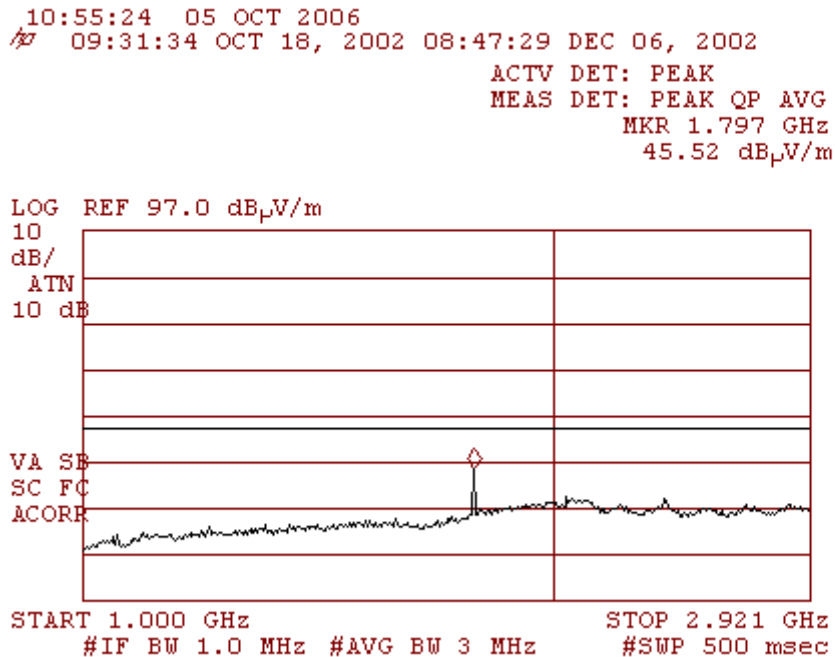


Horizontal & Vertical Polarization Plot 4

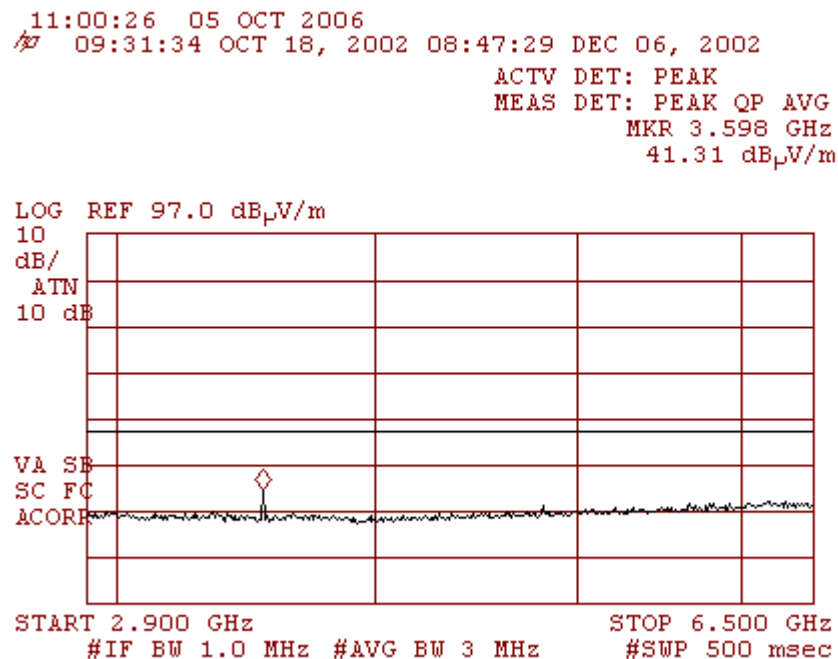


Simultaneously Operated: Bluetooth (2443 MHz) +iDen 900 (896.01875 MHz)

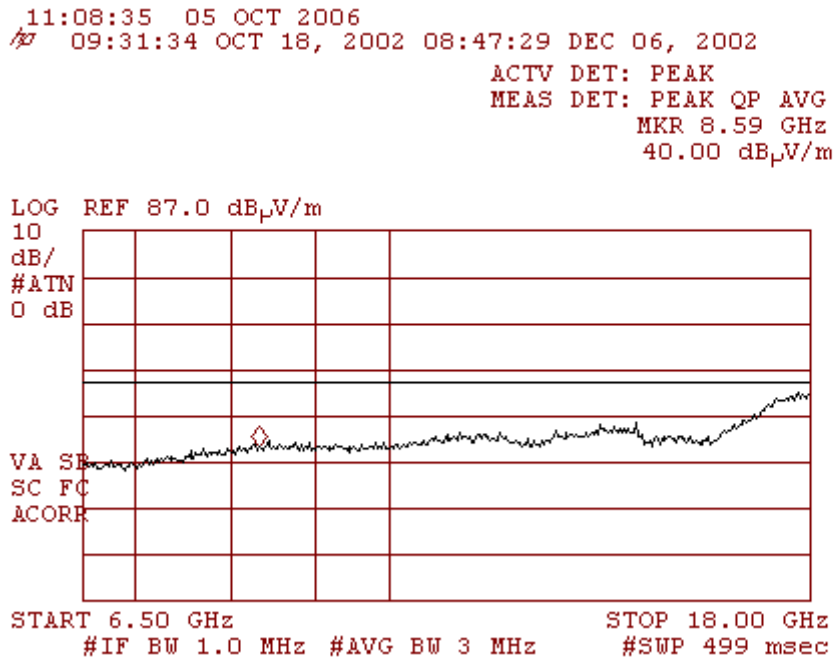
**Middle frequency
Horizontal & Vertical Polarization
Plot 5**



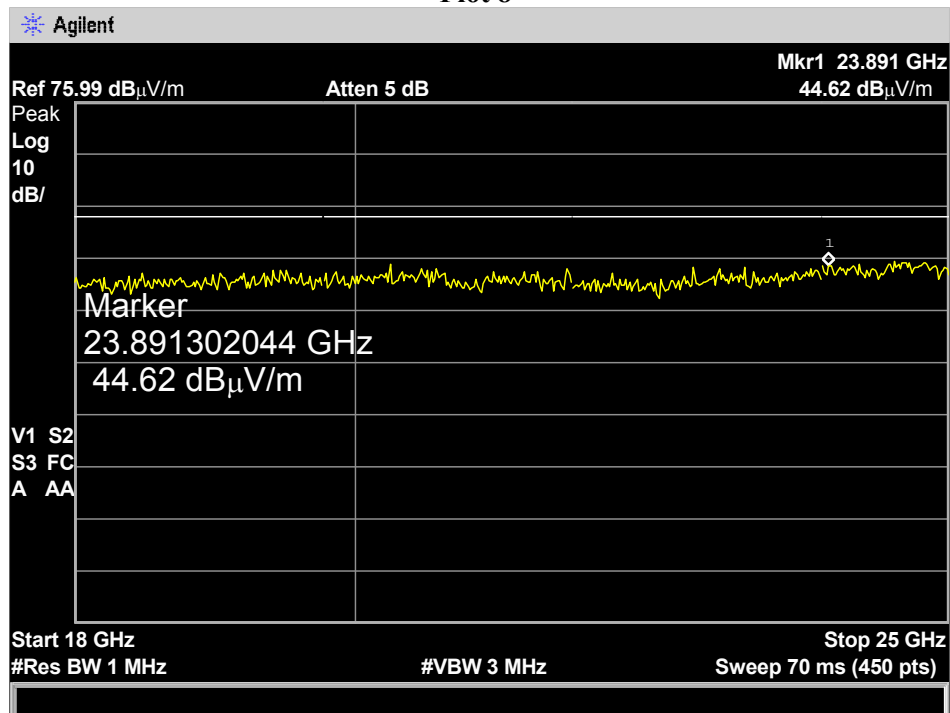
**Horizontal & Vertical Polarization
Plot 6**



Horizontal & Vertical Polarization Plot 7

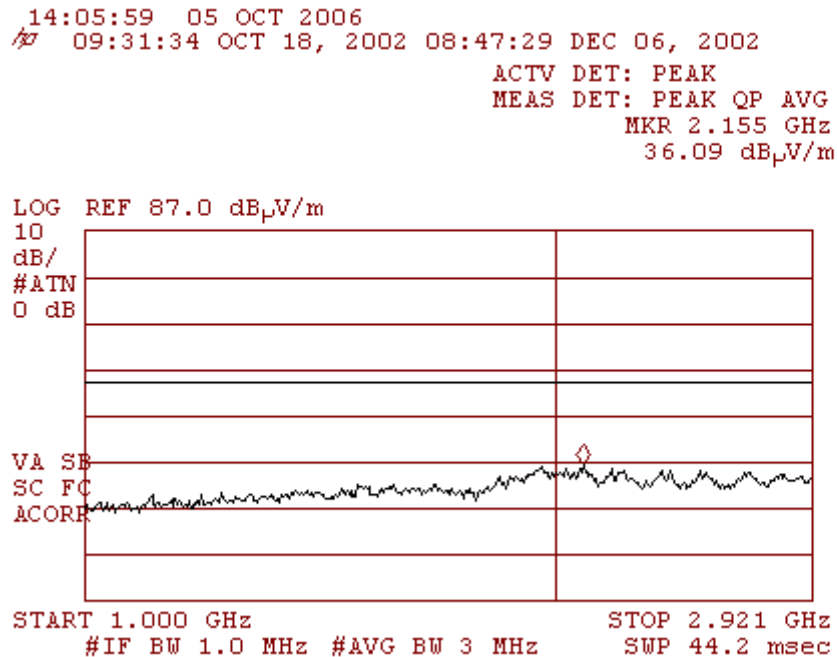


Horizontal & Vertical Polarization Plot 8

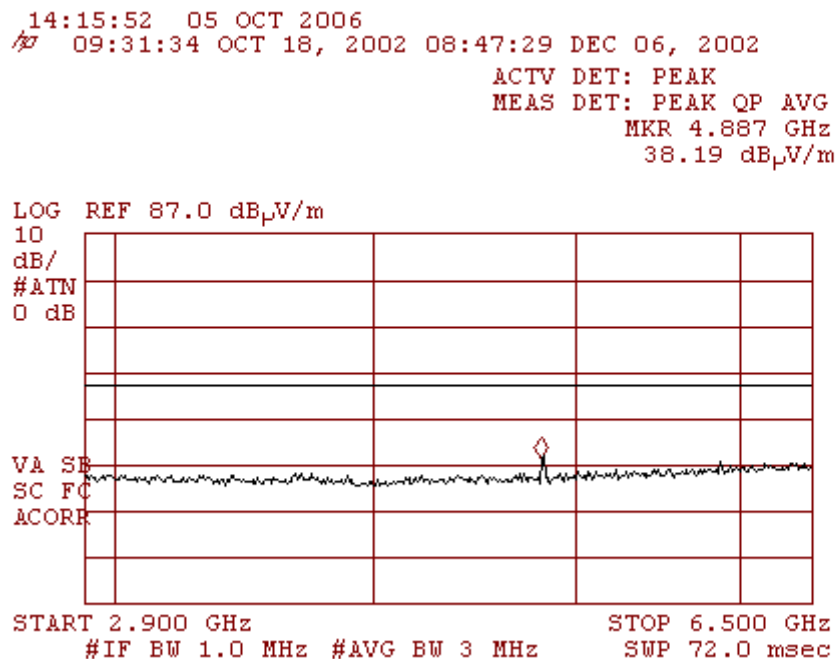


Simultaneously Operated: Bluetooth (2443 MHz) & WLAN 802.11 b 11 Mbps channel 6

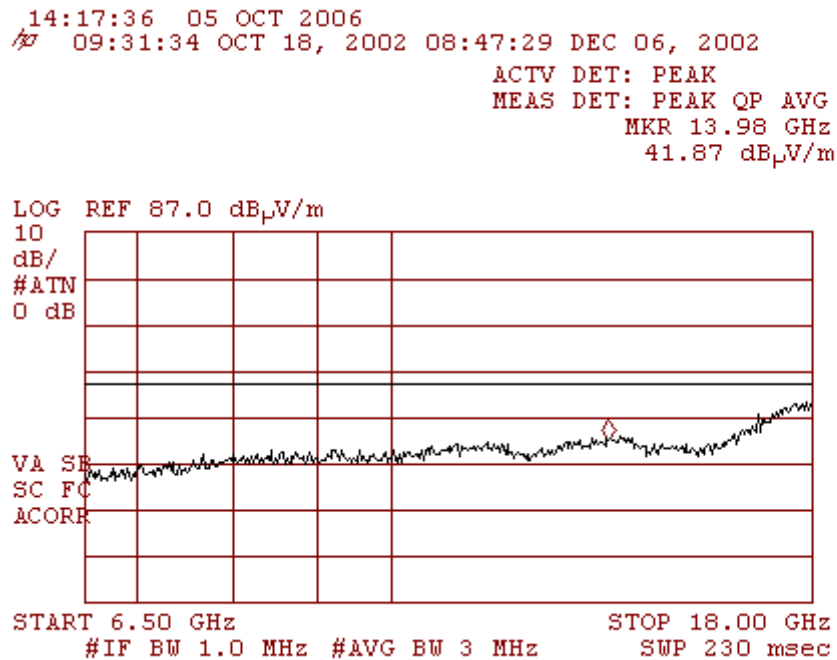
**Middle frequency
Horizontal & Vertical Polarization
Plot 9**



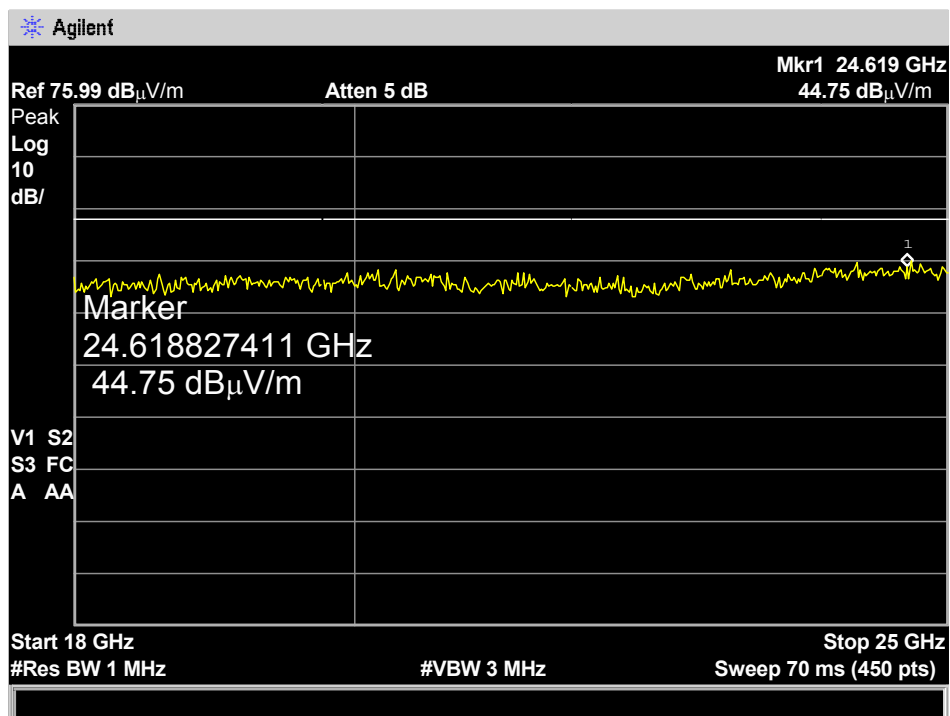
**Horizontal & Vertical Polarization
Plot 10**



Horizontal & Vertical Polarization Plot 11

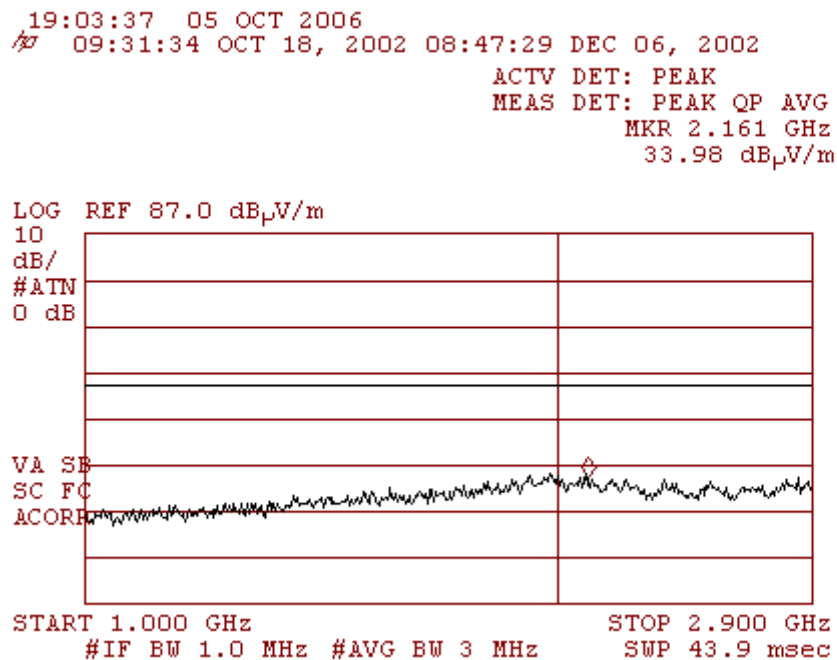


Horizontal & Vertical Polarization Plot 12

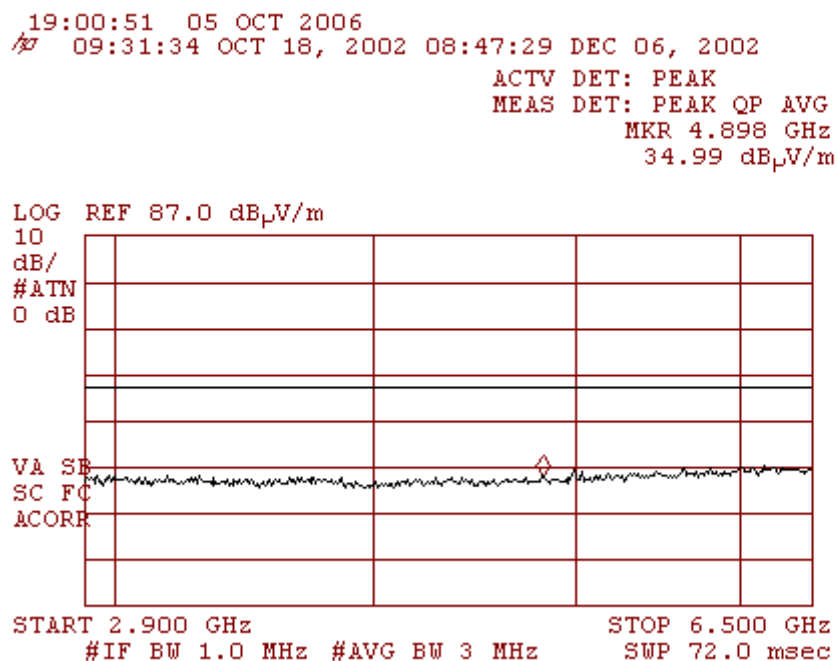


Simultaneously Operated: Bluetooth (2443 MHz) & WLAN 802.11b 54 Mbps channel 6

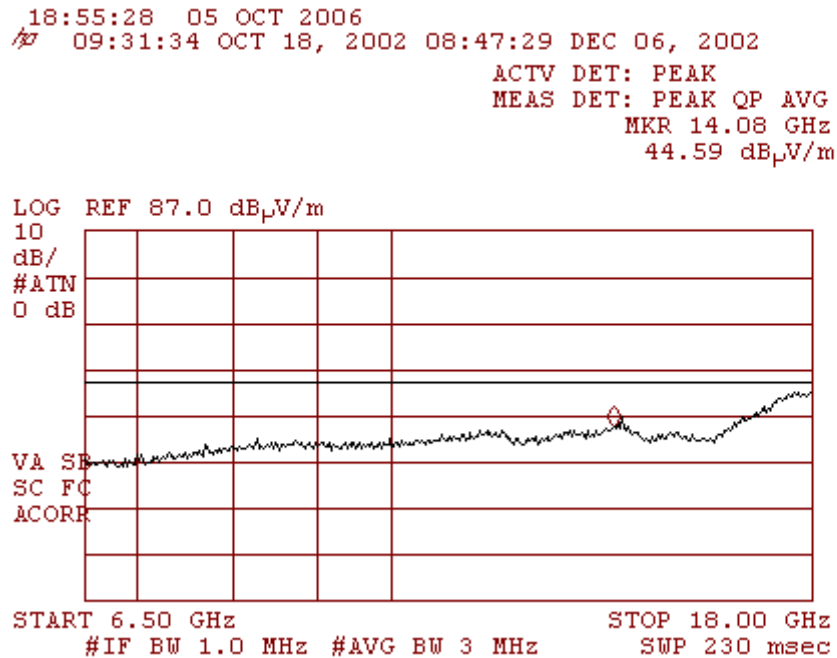
**Middle frequency
Horizontal & Vertical Polarization
Plot 13**



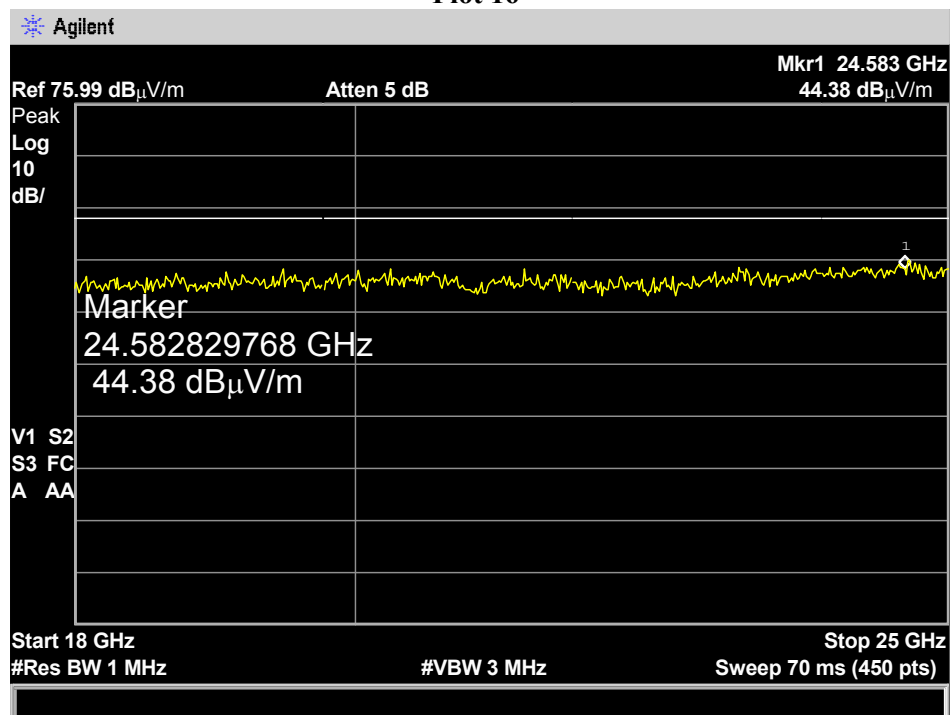
**Horizontal & Vertical Polarization
Plot 14**



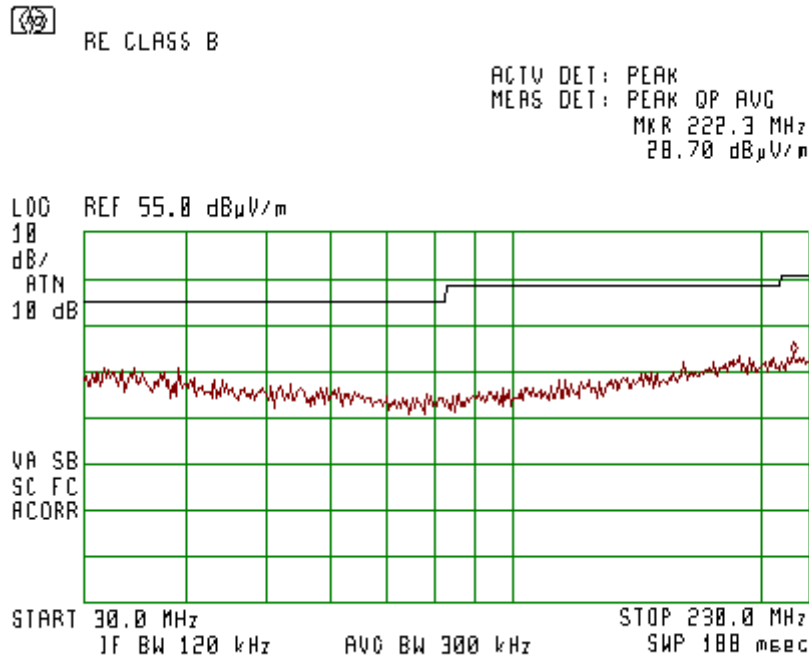
Horizontal & Vertical Polarization Plot 15



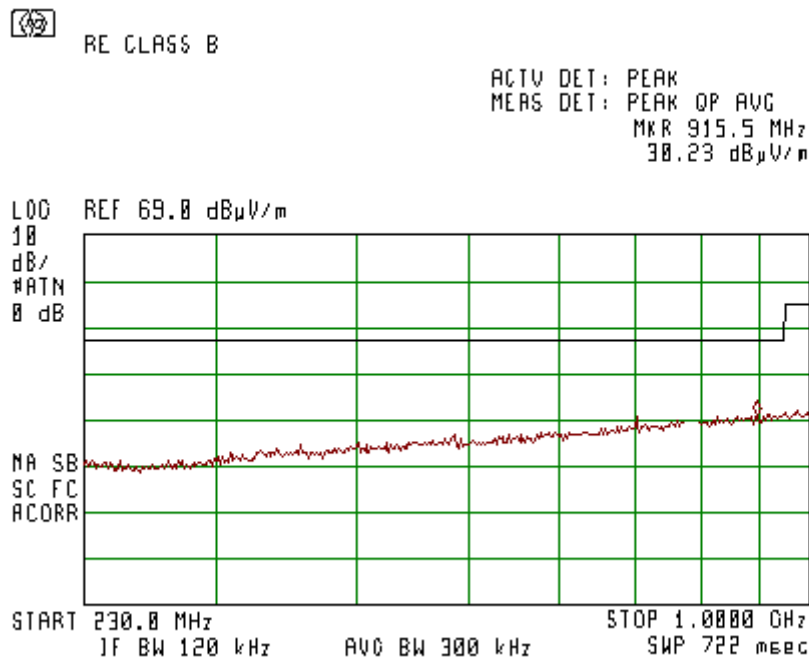
Horizontal & Vertical Polarization Plot 16



Horizontal & Vertical Polarization 3 channels simultaneously
Plot 17



Horizontal & Vertical Polarization
(Vertical Polarization +Horizontal Polarization 3 channels simultaneously)
Plot 18



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