

## **Turbo-Mode Band Edge Measurements (Revised)**

The attached data represents revised measurement data for the Atheros application under FCC ID PPD-AR5BCB-00012. The data originally submitted for the band edge measurement data is incorrect as it used the field strength data for the normal mode fundamental signals and not the fundamental field strength data for the turbo mode

This data should be used to replace pages 21 – 23 of the pdf file *Atheros Radio Report Test log.PDF*.



## EMC Test Data

Client: Atheros	Job Number: J44394
Model: AR5BCB-00012	T-Log Number: T45028
	Proj Eng: Mark Briggs
Contact: Eric Dukatz	
Emissions Spec: FCC Part 15 Subpart E	Class: N/A
Immunity Spec: N/A	Environment: -

# EMC Test Data

For The

**Atheros**

Model

**AR5BCB-00012**



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		Proj Eng:	Mark Briggs
Contact:	Eric Dukatz		
Spec:	FCC Part 15 Subpart E	Class:	N/A

## FCC Part 15 Subpart E Tests

### Test Specifics

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 10/12/2001

Config. Used:

Test Engineer: Jmartinez

Config Change:

Test Location: SVOATS# 4

Host Unit Voltage 120Vac, 60Hz

### General Test Configuration

The EUT was located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT unless stated otherwise.

When measuring the conducted emissions from the EUT's antenna port, the antenna port of the EUT was connected to the spectrum analyzer or power meter via a suitable attenuator to prevent overloading the measurement system. All measurements are corrected to allow for the external attenuators and cables used.

### Ambient Conditions:

Temperature: 24°C

Rel. Humidity: 80%

### Summary of Results

Run #	Test Performed	Limit	Result	Comments
1	RE, 1000 - 40000 MHz - Spurious Emissions	15.407(b)(6)	Pass	-3.62dB @ 5350 MHz

### Modifications Made During Testing:

No modifications were made to the EUT during testing

### Deviations From The Standard

No deviations were made from the requirements of the standard.



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### Run #1: Radiated Spurious Emissions, 5.15 - 5.35 GHz Band Edge Measurements

Limit for emissions in restricted bands:	54dBuV/m (Average)	74dBuV/m (Peak)
Limit for emissions outside of restricted bands:	EIRP < -27dBm/MHz	(68dBuV/m)

Fundamental signal measurements (to calculate the band edge field strengths): Power= 13.3 dBm @ 5290 MHz, 13.8 dBm @ 5210 MHz.

Frequency	Level	Pol	15.209 / 15.407		Detector	Azimuth	Height	Comments
MHz	dB $\mu$ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5210.0	104.8	v	-	-	Pk	234	1.5	RBW = VBW = 1 MHz
5210.0	94.9	v	-	-	Avg	234	1.5	RBW = 1MHz, VBW = 10Hz
5210.0	95.0	h	-	-	Pk	264	1.6	RBW = VBW = 1 MHz
5210.0	85.1	h	-	-	Avg	264	1.6	RBW = 1MHz, VBW = 10Hz
5290.0	104.4	v	-	-	Pk	215	1.5	RBW = VBW = 1 MHz
5290.0	93.0	v	-	-	Avg	215	1.5	RBW = 1MHz, VBW = 10Hz
5290.0	99.5	h	-	-	Pk	162	1.6	RBW = VBW = 1 MHz
5290.0	88.8	h	-	-	Avg	162	1.6	RBW = 1MHz, VBW = 10Hz

### Band Edge Field Strength Calculations

Frequency	Level	Pol	15.209 / 15.407		Detector	Azimuth	Height	Comments
MHz	dB $\mu$ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5150.0	69.1	v	74.0	-4.9	Pk			Note 1
5150.0	50.3	v	54.0	-3.7	Avg			Note 1
5350.0	68.9	v	74.0	-5.1	Pk			Note 2
5350.0	50.4	v	54.0	-3.6	Avg			Note 2

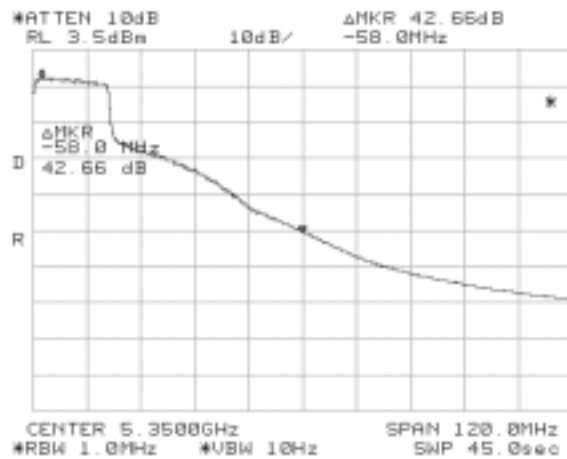
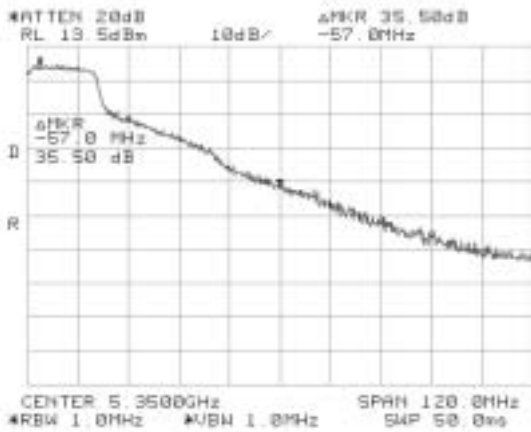
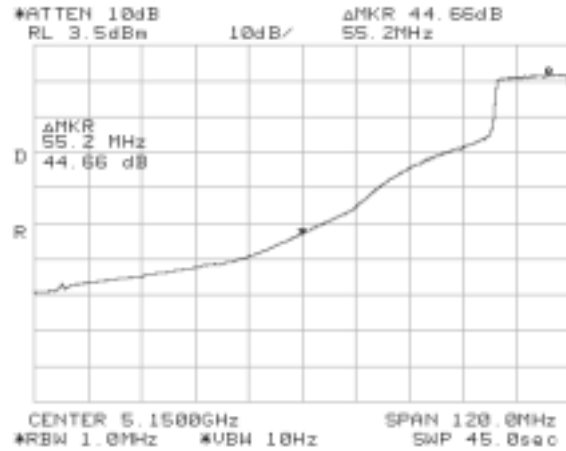
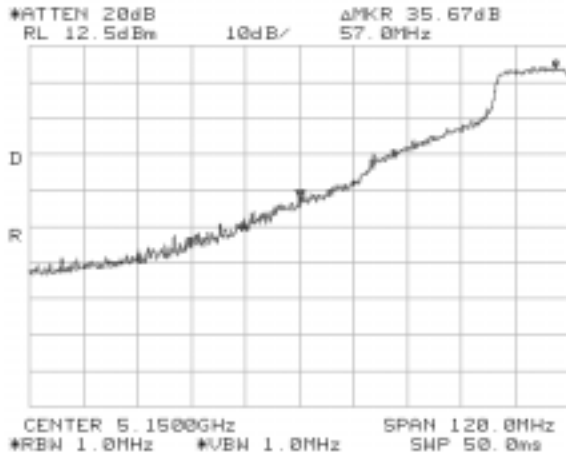
Note 1: EUT operating on the lowest channel available in the 5.15 - 5.25 MHz band. Signal level calculated using the relative measurements in run #5 (-35.7dBc for peak and -44.6dBc for average) applied to the highest peak and average field strength measurements of the fundamental signal level. See graphs on following page.

Note 2: EUT operating on highest channel available in the 5.25 - 5.35 MHz band. Signal level calculated using the relative measurements in run #5 (-35.5 dBc for peak and -42.6dBc for average) applied to the highest peak and average field strength measurements of the fundamental signal level. See graphs on following page.



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**Antenna Conducted and Radiated Emissions, 12-Oct-01 08:59 PM**

**Engineer: jmartinez**

<u>Manufacturer</u>	<u>Description</u>	<u>Model #</u>	<u>Assett #</u>	<u>Cal interval</u>	<u>Last Calibrated</u>	<u>Cal Due</u>
Hewlett Packard	Microwave EMI test system (SA40, 30Hz - 40GHz)	84125C	1149	12	2/5/2001	2/5/2002
Hewlett Packard	Spectrum Analyzer, 9KHz - 22GHz	8593EM	1319	12	5/31/2001	5/31/2002