

Federal Communications Commission 7435 Oakland Mills Road Columbia MD 21046

Attention:Tim HarringtonFCC ID:CJ6UPA3418BTApplicant:Toshiba Corporation

Application: Class II permissive change

Dear Tim:

Below is the statement from Compliance Certification Services (agent authorization is on file with FCC) to address the technical review questions that you had :

1) Please provide summary list/table of FCC IDs and respective frequencies and output powers for devices presently intended for colocated/cotransmitting use with this Bluetooth module.

CCS Reply:

When this Bluetooth module installed in the Toshiba Notebook Computers, this Bluetooth module will be co-located with the following alternate WLAN modules as well. They are :

Type of Device	FCC ID	Frequency	Max. Conducted	Remark
		Range (MHz)	output power	
802.11 a/b/g Mini-	CJ6UPA3374WL	2412-2462	0.279W	Tested
PCI module		5180-5320	0.063W	Tested
(Ameros empset)		5745-5825	0.375W	Tested
802.11 b/g Mini-	CJ6UPA3373WL	2412-2462	0.291W	Not Tested
PCI module				
(Atheros Chipset)				
802.11 b/g Mini-	CJ6UPA3272WL	2412-2462	0.047W	Not Tested
PCI Module (Intel				
Chipset)				
802.11 a/b/g Mini-	CJ6UPA3375WL	2412-2462	0.257W	Tested
PCI Module (Intel		5180-5320	0.0381W	Tested
Chipset)		5745-5825	0.125W	Tested



2) Please provide brief description with photos or sketchs of antenna/module relative locations in presently intended host-product configuration(s).

CCS Reply :

The configuration photo listed below is the typical installation location of WLAN (Main/Aux) Antennas and Bluetooth Antenna. WLAN antennas and Bluetooth Antenna will be installed on the top of LCD panel.





3) Feb04 TCB training notes and other FCC/OET documents have said tests for simultaneous transmission are required, if applicable, and if simultaneous transmission results were no worse compared to the individual transmitter tests, then a statement shall be submitted that simultaneous transmission was investigated and no degraded results were found. For this specific filing with colocated devices listed so far, cotransmitting test data is not requested to be submitted, but grantee is still responsible for compliance. Based on these considerations, please submit statement/letter concerning presently intended colocated cotransmitting operations of this device.

CCS Reply:

When WLAN module and Bluetooth module installed in the standard notebook computer. The WLAN antennas and Bluetooth antenna will always install on the top edge of LCD panel, the transmitting antennas will be separated by more than 20 cm to the body of user during the normal operation.

When WLAN module and Bluetooth module installed in the Toshiba Tablet PC, by rotating the LCD panel 180 degree and cover on the top of keyboard section, the transmitting antenna will be within 20 cm separation distance to the body of user.

Based upon above understanding, CCS has performed the radiated collocated tests and SAR collocated tests with FCC ID:CJ6UPA3374WL (Atheros 802.11 a/b/g module) and FCC ID: CJ6UPA3375WL (Intel 802.11 a/b/g module).

Based upon the test result, spurious emissions and highest SAR value are below the original application on file under WLAN modules.

Below is the test summary collocation test result table for Bluetooth Module FCC ID:CJ6UPA3418 transmit simultaneously with WLAN FCC ID:CJ6UPA3374WL.

Dominant Transmitter: 802.11 a/b/g mini-PCI module, FCC ID: CJ6UPA3374WL #1Non-Dominant Transmitter: Bluetooth module, FCC ID: CJ6UPA3232BT #2Non-Dominant Transmitter : Bluetooth module, FCC ID:CJ6UPA3418BT

Dominant Transmitter (Emission Portion)							
FCC ID	Output	Highest	Output	Highest	Output	Highest Spurious	
	Power	Spurious	Power	Spurious	Power	Emission @5.8GHz	
	@2.4GHz	Emission	@5GHz	Emission	@5.8GHz		
		@2.4GHz		@5Hz			
	.279W	72.57dBuV/	.063W	73.03dBu	.375W	65.0dBuV/m/P&52.3	
		m/P		V/m/P &		dBuV/m/A	
CJ6UPA33		&53.71dBu		53.83dBu			
74WL		V/m/A		V/m/A			



		~ ^				
		C0-located				
		with #1				
		non-				
		dominant				
		TX				
		73.56dBuV/				
		m/P &				
		53.7dBuV/				
		m/A				
		Co-located				
		with #2				
		non-				
		dominant				
		TX				
		62.7dBuV/				
		m/P &				
		47.11dBuV/				
		m/A				
	Dominant Transmitter (RF Exposure Portion)					
Body	SAR	Body SAR	Body	Body SAR	Body SAR	Body SAR lap held
sic	le	lap held	SAR side	lapheld@5	side	@5.8GHz
touc	hed	@2.4GHz	touched	GHz	touched	
person	@2.4		person@		person@5.	
GH	Ιz		¹ 5GHz		8GHz	
0.691	W/kg	0.026W/kg	1.08W/kg	0.05W/kg	1.21W/kg	0.081W/kg
Co-lo	cated		U	U	Co-located	
with	#1				with #1	
no	n-				non-	
domi	nant				dominant	
TX/0.7	758W				TX/	
/k	g				1.31W/kg	
0.473	e W/kg				0.408W/kg	
					Co. lo sete d	
	. 1				Co-located	
					with #2	
with	#2				non-	
no	n-				dominant	
domi	nant				1X/0.412	
TX/0.4	197W				w/kg	
/k	g	.		T •		
Non-Dominant Transmitter						
FCC ID	O Output Power					
CJ6UPA3232BT	2BT .0014W					
CJ6UPA3418BT	.0014W					



Best Regards

Mike Kuo/ Compliance Certification Services April 06, 2005