GRANT OF EQUIPMENT AUTHORIZATION

TCB

Certification

Issued Under the Authority of the Federal Communications Commission

By:

UL Verification Services Inc. (formerly UL CCS) 47173 Benicia Street Fremont, CA 94538

Date of Grant: 05/29/2015

Application Dated: 05/29/2015

Qualcomm Atheros, Inc. 1700 Technology Dr San Jose, CA 95110

Attention: Paul Guckian, Vice President, Regulatory Engineering

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: PPD-QCNFA324

Name of Grantee: Qualcomm Atheros, Inc.

Equipment Class: Part 15 Spread Spectrum Transmitter

Notes: 2x2 802.11A/B/G/N/AC WiFi +

Bluetooth Module

Modular Type: Single Modular

Frequency Output Frequency Emission

Grant Notes FCC Rule Parts Range (MHZ) Watts Tolerance Designator

CC 15C 2402.0 - 2480.0 0.015

Class II permissive change filing for minor PCB layout, chip version and BOM change as documented in this filing.

Modular Approval. Output power is conducted. This module may be installed only by the OEM or an OEM integrator. This module may be installed only by the OEM or an OEM integrator. This transmitter has been approved for use in mobile RF exposure category configurations with the antenna(s) installed to provide a separation distance of at least 20 cm from all persons. The antenna(s) used for this transmitter must not be collocated or operating in conjunction with any other antenna or transmitter within a host device, except in accordance with FCC multitransmitter product procedures. Grantee must coordinate with OEM integrators to determine applicable host configurations to ensure RF exposure compliance, including simultaneous transmission.

CC: This device is certified pursuant to two different Part 15 rules sections.

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EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: PPD-OCNFA324

Name of Grantee: Qualcomm Atheros, Inc.

Equipment Class: Digital Transmission System
Notes: 2x2 802.11A/B/G/N/AC WiFi +

Bluetooth Module

Modular Type: Single Modular

Grant Notes	FCC Rule Parts	Frequency <u>Range (MHZ)</u>	Output <u>Watts</u>	Frequency Emission <u>Tolerance</u> <u>Designator</u>
CC MO	15C	2402.0 - 2480.0	0.002	
CC MO	15C	2412.0 - 2462.0	0.485	3 3 4
CC MO	15C	2422.0 - 2452.0	0.205	1304

Class II permissive change filing for minor PCB layout, chip version and BOM change as documented in this filing.

Modular Approval. Output power listed is maximum combined conducted. This device supports 20, and 40 MHz bandwidths. This module may be installed only by the OEM or an OEM integrator. This transmitter has been approved for use in mobile RF exposure category configurations with the antenna(s) installed to provide a separation distance of at least 20 cm from all persons. The antenna(s) used for this transmitter must not be collocated or operating in conjunction with any other antenna or transmitter within a host device, except in accordance with FCC multi-transmitter product procedures. Grantee must coordinate with OEM integrators to determine applicable host configurations to ensure RF exposure compliance, including simultaneous transmission.

CC: This device is certified pursuant to two different Part 15 rules sections.

MO: This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.

GRANT OF EQUIPMENT AUTHORIZATION

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Certification

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By:

UL Verification Services Inc. (formerly UL CCS) 47173 Benicia Street Fremont, CA 94538

Date of Grant: 05/29/2015

Application Dated: 05/29/2015

Qualcomm Atheros, Inc. 1700 Technology Dr San Jose, CA 95110

Attention: Paul Guckian, Vice President, Regulatory Engineering

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: PPD-QCNFA324

Name of Grantee: Qualcomm Atheros, Inc.

Equipment Class: Part 15 Class B Computing Device

Peripheral

Notes: 2x2 802.11A/B/G/N/AC WiFi +

Bluetooth Module

Modular Type: Single Modular

Frequency Output Frequency Emission

Grant Notes FCC Rule Parts Range (MHZ) Watts Tolerance Designator

CC 15B

Class II permissive change filing for minor PCB layout, chip version and BOM change as documented in this filing.

CC: This device is certified pursuant to two different Part 15 rules sections.

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Date of Grant: 05/29/2015

Application Dated: 05/29/2015

Qualcomm Atheros, Inc. 1700 Technology Dr San Jose, CA 95110

Attention: Paul Guckian, Vice President, Regulatory Engineering

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: PPD-OCNFA324

Name of Grantee: Qualcomm Atheros, Inc.

Equipment Class: Unlicensed National Information

Infrastructure TX

Notes: 2x2 802.11A/B/G/N/AC WiFi +

Bluetooth Module

Modular Type: Single Modular

Grant Notes	FCC Rule Parts	Frequency Range (MHZ)	Output <u>Watts</u>	Frequency Tolerance	Emission <u>Designator</u>
38 CC MO	15E	5180.0 - 5240.0	0.08	3 7 1	h
38 CC MO	15 E	5260.0 - 5320.0	0.0749	1130	₩
38 CC MO	15 E	5500.0 - 5720.0	0.0501	1 12	V)
38 CC MO	15 E	5745.0 - 5825.0	0.0674	A E CO	WA.

Class II permissive change filing for minor PCB layout, chip version and BOM change as documented in this filing.

Modular Approval. Output power listed is maximum combined conducted. This device supports 20, 40, and 80 MHz bandwidths. This module may be installed only by the OEM or an OEM integrator. This transmitter has been approved for use in mobile RF exposure category configurations with the antenna(s) installed to provide a separation distance of at least 20 cm from all persons. This device supports client-only operating modes in the 5150-5350 MHz, 5470-5725, and 5825-5850 MHz bands. The antenna(s) used for this transmitter must not be collocated or operating in conjunction with any other antenna or transmitter within a host device, except in accordance with FCC multi-transmitter product procedures. Grantee must coordinate with OEM integrators to determine applicable host configurations to ensure RF exposure compliance, including simultaneous transmission.

38: This device has shown compliance, in all grant-listed U-NII sub-bands, with the new rules for U-NII devices adopted under Docket No. 13-49 and may be marketed, manufactured, installed or imported after the June 1, 2016 transition deadline.

- CC: This device is certified pursuant to two different Part 15 rules sections.
- MO: This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.

