

May 1, 2019

 Office of Engineering and Technology
 Laboratory Division
 Equipment Authorization Branch, FCC Laboratory
 7435 Oakland Mills Road
 Columbia, MD 21046

Subject: Extended Frequencies Justification for Certification of Transmitter with FCC ID: AZ489FT7119

Dear Sir/Madam:

This transmitter was designed to operate in the following frequency ranges:

Band / Mode	Frequency ranges	RF Power	FCC rule parts
VHF	136 – 174 MHz	6.0W nominal; 6.6W max	22, 74, 80, 90
UHF	380 – 520 MHz	5.0W nominal; 5.7W max	22, 74, 80, 90
700	762-776 MHz, 792-806 MHz	2.5W nominal; 2.99W max	90
800	806-825 MHz, 851-870 MHz	3.0W nominal; 3.6W max	90
Bluetooth (LE, 4.0, 5.0)	2402-2485 MHz	0.02W nominal; 0.115W max	15C
WiFi 2.4GHz	2412 – 2463 MHz	802.11b – 164mW conducted; 200mW max 802.11g – 133mW conducted; 158mW max 802.11n(HT20) – 125mW conducted; 158mW max 802.11n(HT40) – 139mW conducted; 158mW max	15C
WiFi 5 GHz	5180 – 5240 MHz	802.11a – 111.429mW conducted; 158mw max 802.11n(HT20) – 112.720mW conducted; 158mwW max 802.11n(HT40) – 116.145mW conducted; 158mW max 802.11ac(HT20) – not tested 802.11ac(HT40) – not tested 802.11ac(HT80) – 52.602mW conducted; 126mW max	15E
WiFi 5 GHz	5260 – 5320 MHz	802.11a – 110.154mW conducted; 158mw max 802.11n(HT20) – 108.643mW conducted; 158mwW max 802.11n(HT40) – 111.686mW conducted; 158mW max 802.11ac(HT20) – not tested 802.11ac(HT40) – not tested 802.11ac(HT80) – 82.985mW conducted; 126mW max	15E
WiFi 5 GHz	5500 – 5720 MHz	802.11a – 111.460mW conducted; 158mw max 802.11n(HT20) – 106.170mW conducted; 158mwW max 802.11n(HT40) – 110.154mW conducted; 158mW max 802.11ac(HT20) – not tested 802.11ac(HT40) – not tested 802.11ac(HT80) – 85.901mW conducted; 126mW max	15E
WiFi 5 GHz	5745 – 5825 MHz	802.11a – 112.980mW conducted; 158mw max 802.11n(HT20) – 108.893mW conducted; 158mwW max 802.11n(HT40) – 109.396mW conducted; 158mW max 802.11ac(HT20) – not tested 802.11ac(HT40) – not tested 802.11ac(HT80) – 109.901mW conducted; 126mW max	15E
LTE B2	1850 – 1910 MHz	158-194mW conducted; 250mW max	24E
LTE B4	1710 – 1755 MHz	138-193mW conducted; 250mW max	27
LTE B5	824 – 849 MHz	160-196mW conducted; 250mW max	22H
LTE B12	699 – 716 MHz	155-191mW conducted; 250mW max	27
LTE B13	777 – 787 MHz	163-194mW conducted; 250mW max	27
LTE B14	788 – 798 MHz	55-71mW conducted; 250mW max	90R
LTE B17	704 – 716 MHz	159-187mW conducted; 250mW max	27
NFC	13.56 MHz		15C

To aid equipment authorization in other countries which accept the United States FCC Grant for Certification, Motorola Solutions is requesting that the FCC lists the above applicable frequencies range under FCC Rule Parts 22, 74, 80, 90R and 90 on the FCC Grant.

For the FCC's Rule Parts 22, 74, 80, 90R and 90 applications, this radio is used in systems by Federal and Public Safety agencies including Police, Fire, and Emergency Medical Services, etc. as indicated in the table below. Equipment programming is the responsibility of Authorized Service Personnel.

Also, the radio complies with 47 CFR Part 90.203(e) and 80.203(b), in that the operator cannot directly program the transmit frequencies using the normally accessible external controls.

Per the FCC's KDB634817 guidance, as an alternative to listing the exact frequencies, we acknowledge that it's a violation of the FCC Rules if this device operates on unauthorized frequencies.

Frequency Range (MHz)	Part 22	Part 74	Part 80	Part 90	Part 90R	Federal	Other Regions
136-150.8*						X	X
150.8-152.855				X			
152.855-154		X		X			
154-156.2475			X	X			
156.2475-157.1875			X				
157.1875-157.45			X	X			
157.45-161.575	X	X	X	X			
161.575-161.625			X				
161.625-161-775		X					
161.775-161.9625			X	X			
161.9625-162.025			X				
162.025-162.0375*						X	X
162.0375-173.4		X		X			
173.4-174*							X
380-406						X	
406.1-450				X			
450-454		X		X			
454-456		X					
456-460	X		X	X			
460-462.5375				X			
462.5375-462.7375*						X	X
462.7375-467.5375			X	X			
467.5375-467.7375			X				
467.7375-470			X	X			
470-512	X	X		X			
512-520						X	X
762-768						X	
768-769*						X	X
769-775				X			
775-776*							X
792-798						X	
798-799*						X	X
799-805				X			
805-806*							X
806-809				X			
809-824				X			
824-825							X
851-854				X			
854-869				X			
869-870							X

* Canada



FCC ID: AZ489FT7119

Please contact me if you required any additional information.

Sincerely,

A handwritten signature in black ink that reads 'Deanna Zakharia'.

Deanna Zakharia
Regulatory Compliance Manager
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