

Date: 12/6/2021

## Description of Permissive Change

The application is preparing for FCC Class II Permissive Change that changing WWAN/WLAN/BT antenna and WLAN/BT module as below table.

### <WWAN>

Ant. No.	Manufacturer	Type	P/N	Connector	Peak Gain (dBi)						
					617-821 MHz	824-960 MHz	1425-1515 MHz	1710-2200 MHz	2300-2690MHz	3400-3800MHz	
1	WNC	PIFA (Main)	81ELA115.G36 (DC33002MD1L)	IPEX	-2.29	1.84	0.7	0.23	1.84	1.67	
		Type	P/N	Connector	Peak Gain (dBi)						
					617-821 MHz	824-960 MHz	1425-1515 MHz	1805-2200 MHz	2300-2690MHz	3400-3800 MHz	
		PIFA (Aux.)	81ELA115.G36 (DC33002MD1L)	IPEX	0.92	0.6	-0.76	1.43	2.14	2.14	
		Type	P/N	Connector	Peak Gain (dBi)						
					1710-2200 MHz		2300-2690 MHz		3400-3800 MHz		
		PIFA (MIMO2)	81ELAW15.G39 (DC33002HQ3L)	IPEX	0.63		0.94		-1.87		
Type	P/N	Connector	Peak Gain (dBi)								
			1805-2200 MHz		2300-2690 MHz		3400-3800 MHz				
PIFA (MIMO3)	81ELA115.G37 (DC33002MD2L)	IPEX	-0.87		1.18		1.97				
Ant. No.	Manufacturer	Type	P/N	Connector	Peak Gain (dBi)						
					698-821 MHz	824-960 MHz	1425-1515 MHz	1710-2200 MHz	2300-2690 MHz	3400-3800 MHz	
2	SPEED	PIFA (Main)	F-0G-FH-6145-004-00 (DC33002ME1L)	IPEX	-2.29	1.84	0.7	2.02	1.84	1.67	
		Type	P/N	Connector	Peak Gain (dBi)						
					716-821 MHz	824-960 MHz	1425-1515 MHz	1557-1610 MHz	1805-2200MHz	2300-2690MHz	3400-3800MHz
		PIFA (Aux.)	F-0G-FH-6145-004-00 (DC33002ME1L)	IPEX	0.64	0.6	-0.76	-2.18	1.43	2.14	2.14
		Type	P/N	Connector	Peak Gain (dBi)						
					1710-2200 MHz		2300-2690 MHz		3400-3800 MHz		
		PIFA (MIMO2)	F-0G-FH-6116-003-00 (DC33002G77L)	IPEX	0.63		0.94		-1.87		
Type	P/N	Connector	Peak Gain (dBi)								
			1805-2200 MHz		2300-2690 MHz		3400-3800 MHz				
PIFA (MIMO3)	F-0G-FH-6146-002-00 (DC33002ME2L)	IPEX	-0.87		1.18		1.97				

## &lt;WLAN&gt;

Ant. No.	Manufacturer	Type	P/N	Connector	Peak Gain (dBi)			
					2.4GHz	5.15-5.35 GHz	5.47-5.725 GHz	5.725-5.875 GHz
Laptop Mode								
1	SPEED	PIFA (Main)	F-0G-FH-6145-007-00 (DC33002ME5L)	IPEX	1.82	1.98	1.76	1.78
		PIFA (Aux)	F-0G-FH-6145-007-00 (DC33002ME5L)	IPEX	1.85	1.84	1.93	1.94
2	Hong-BO Co., Ltd	PIFA (Main)	330-24007 (DC33002OA0L)	IPEX	1.82	1.98	1.76	1.78
		PIFA (Aux)	330-24007 (DC33002OA0L)	IPEX	1.85	1.84	1.93	1.94
Tablet Mode								
1	SPEED	PIFA (Main)	F-0G-FH-6145-007-00 (DC33002ME5L)	IPEX	1.70	1.33	0.99	0.29
		PIFA (Aux)	F-0G-FH-6145-007-00 (DC33002ME5L)	IPEX	0.82	3.11	2.35	2.35
2	Hong-BO Co., Ltd	PIFA (Main)	330-24007 (DC33002OA0L)	IPEX	1.70	1.33	0.99	0.29
		PIFA (Aux)	330-24007 (DC33002OA0L)	IPEX	0.82	3.11	2.35	2.35

The modules mentioned above has been approved and is electronically and mechanically identical to the original instructions and requirements. Except for the changes mentioned above, no other modification is performed.



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