

Letter of Permissive Change

Jul. 13, 2023

Subject: Permissive Change for FCC ID: BEJNT-16Z90R

To whom it may concern:

This is to request Permissive Change for FCC ID: BEJNT-16Z90R, Originally Granted on 12/14/2022(DSS/DTS/UNII) and 01/18/2023 (6XD) for adding new configuration, components and antenna, except to the differences listed below table, otherwise includes RF schematic are identical.

Configuration		Main Board	GPU	Battery	CPU	TPM (Trusted Platform Module)	Panel Touch Function	Antenna
Original	16Z90R-K 16Z90R-N	ROYAL MAIN B/D	Intel Iris Xe Graphics	LBV7227E (80 Wh)	Intel, i7-1360P Intel, i5-1340P	Not Support	Without	#1 WA-P-LELE-04-009 #2 L1LRF008-CS-H
	16Z90R-A 16Z90R-R	ROYAL NVIDIA MAIN B/D	NVIDIA GeForce RTX 3050	LBY122CM (90 Wh)		Not Support		
Permissive Change	16Z90R-Q	ROYAL MAIN B/D		LBV7227E (80 Wh)	Intel, i7-1370P Intel, i5-1350P	Support		
	16Z90R-H 16Z90R-T	ROYAL MAIN B/D	Intel Iris Xe Graphics	LBV7227E (80 Wh)	Intel, i7-1360P Intel, i5-1340P	Not Support	With	#3 WA-P-LBLB-04-110

Note: 1. The configuration can be identified as label.

- 2. To add new Configuration (HVIN) 16Z90R-Q, 16Z90R-H and 16Z90R-T
- 3. To add Touch Board for Panel for new Configuration (HVIN) 16Z90R-H and 16Z90R-T.
- 4. To add new Antenna for Main Board (GM).
- 5. To decrease power for WIFI 2.4GHz Only. Other BT/BLE/UNII/6XD power is not change.

Antenna Gain Values Comparison Table please sees as below:

Original				Original				Permissive Change			
WA-P-LELE-04-009				L1LRF008-CS-H				WA-P-LBLB-04-110			
Frequency	Main	Aux	Directional Gain	Frequency	Main	Aux	Directional Gain	Frequency	Main	Aux	Directional Gain
2400-2500*	3.1	2.3	2.72	2400-2500*	6.3	0.9	4.42	2400-2500*	3.1	2.9	3.00
5150*	4.2	3.6	3.91	5150	-1.5	2.3	0.80	5150-5350*	-2.1	2.8	1.01
5400	4.2	3.7	3.96	5400	3.4	4.5	3.99	5470-5725	2.5	5.7	4.39
5850	4	3.5	3.76	5850	3.3	5.8	4.70	5725-5850	5.2	5.3	5.25
5925	4.3	3.5	3.92	5925	2.9	4.7	3.92	5925-6425	4.8	3.7	4.28
6525*	4.2	3.5	3.86	6525*	3.4	1.3	2.48	6425-6525*	1.0	-1.0	0.11
7125*	4.1	2.3	3.29	7125*	-4.9	-1.6	-2.99	6525-6875*	1.6	2.8	2.24
7125*								6875-7125*	2.9	-1.4	1.26



Assessment:

	RF Power	RSE	Band-edge	SAR & PD	CBP
The new gain is higher than original.	Full Test	Full Test	Full Test	Full Test	Full Test
The new gain is lower than original.	Full Test	Perform the worst case	Full Test	Full Test	Full Test

Note:

For 6XD grant, the "New" antenna gain is less than original expect the U-NII band 5:

We did spot check for output power and all output power values keep identical thus other conducted items are exempt.

The test items mentioned above are documented in the reports.

For DSS/NII grants, the "New" antenna gain is less than original expect the U-NII band 2A,2C and 3:

We did spot check for output power and all output power values keep identical thus other conducted items are exempt.

The test items mentioned above are documented in the reports.

For the DTS grant, the "New" antenna gain is higher than original:

We did spot check for output power and all output power values keep identical or lower thus other conducted items are exempt.

The test items mentioned above are documented in the reports.

Best regards

Heejae Cho

Director, Regulatory and Environmental Affairs

LG Electronics USA