

# FCC Test Report (BT-LE)

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FCC Registration / Designation Number:

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Report No.: RFBARR-WTW-P21030485-2 Page No. 1 / 45 Report Format Version: 6.1.1



## **Table of Contents**

1         Certificate of Conformity.         5           2         Summary of Test Results.         6           2.1         Measurement Uncertainty.         6           3.2         Modification Record.         6           3.3         General Information.         7           3.1         Gespription of EUT (BT-LE).         7           3.2         Description of Sust Modes.         8           3.2.1         Test Mode Applicability and Tested Channel Detail.         9           3.3         Duly Cycle of Test Signal.         11           3.4         Description of Support Units         12           3.4.1         Configuration of System under Test         13           3.5         General Description of Applied Standards and References         13           4.1         Radiated Emission and Bandedge Measurement.         15           4.1.1         Limits of Radiated Emission and Bandedge Measurement.         15           4.1.2         Test Instruments         16           4.1.3         Test Procedures.         18           4.1.4         Deviation from Test Standard         18           4.1.5         Test Setup.         19           4.1.6         EUT Operating Conditions         20 <tr< th=""><th>R</th><th>elease</th><th>e Control Record</th><th> 4</th></tr<>	R	elease	e Control Record	4
2.1       Medification Record       6         3       General Information       7         3.1       General Description of EUT (BT-LE)       7         3.2       Description of Test Modes       8         3.2.1       Test Mode Applicability and Tested Channel Detail       9         3.3       Duty Cycle of Test Signal       11         3.4       Description of Support Units       12         3.4       Configuration of System under Test       13         3.5       General Description of Applied Standards and References       14         4.1       Radiated Emission and Bandedge Measurement       15         4.1.1       Inits of Radiated Emission and Bandedge Measurement       15         4.1.2       Test Instruments       16         4.1.3       Test Procedures       18         4.1.4       Deviation from Test Standard       18         4.1.5       Test Setup       19         4.1.6       EUT Operating Conditions       20         4.1.7       Test Results       21         4.2       Conducted Emission Measurement       29         4.2.1       Limits of Conducted Emission Measurement       29         4.2.2       Test Results       30	1	C	Certificate of Conformity	5
2.2       Modification Record       6         3       General Information.       7         3.1.1       General Description of EUT (BT-LE)       8         3.2.1       Test Mode Applicability and Tested Channel Detail       9         3.3.2       Du Cycle of Test Signal       11         3.4       Description of Support Units       12         3.4.1       Configuration of System under Test       13         3.5       General Description of Applied Standards and References       14         4.1       Radiated Emission and Bandedge Measurement       15         4.1.1       Limits of Radiated Emission and Bandedge Measurement       15         4.1.2       Test Instruments       16         4.1.3       Test Procedures       18         4.1.4       Deviation from Test Standard       18         4.1.5       Test Setup       19         4.1.6       EUT Operating Conditions       20         4.1.7       Test Results       21         4.2       Toucked Emission Measurement       29         4.2.1       Limits of Conducted Emission Measurement       29         4.2.2       Test Instruments       30         4.2.5       Test Setup       30 <t< th=""><th>2</th><th>S</th><th>summary of Test Results</th><th> 6</th></t<>	2	S	summary of Test Results	6
3 General Information.         7           3.1 General Description of EUT (BT-LE).         7           3.2 Description of Test Modes.         8           3.2.1 Test Mode Applicability and Tested Channel Detail         9           3.3 Duty Cycle of Test Signal         11           3.4 Description of Support Units         12           3.4.1 Configuration of System under Test         13           3.5 General Description of Applied Standards and References         14           4 Test Types and Results         15           4.1.1 Limits of Radiated Emission and Bandedge Measurement         15           4.1.2 Test Instruments         16           4.1.3 Test Procedures         18           4.1.4 Deviation from Test Standard         18           4.1.5 Test Setup         19           4.1.6 EUT Operating Conditions         20           4.1.7 Test Results         20           4.2.2 Test Instruments         29           4.2.1 Limits of Conducted Emission Measurement         29           4.2.2 Test Instruments         29           4.2.3 Test Procedures         30           4.2.4 Deviation from Test Standard         30           4.2.5 Test Setup         30           4.2.6 EUT Operating Conditions         30				
3.2.1 Test Mode Applicability and Tested Channel Detail         9           3.2.1 Test Mode Applicability and Tested Channel Detail         9           3.3 Duty Cycle of Test Signal         11           3.4 Description of Support Units         12           3.4.1 Configuration of System under Test         13           3.5 General Description of Applied Standards and References         14           4 Test Types and Results         15           4.1 Radiated Emission and Bandedge Measurement         15           4.1.1 Limits of Radiated Emission and Bandedge Measurement         15           4.1.2 Test Instruments         16           4.1.3 Test Procedures         18           4.1.4 Deviation from Test Standard         18           4.1.5 Test Setup         19           4.1.6 EUT Operating Conditions         20           4.1.7 Test Results         21           4.2.1 Limits of Conducted Emission Measurement         29           4.2.2 Test Instruments         29           4.2.2 Test Instruments         29           4.2.3 Test Procedures         30           4.2.4 Deviation from Test Standard         30           4.2.5 Test Setup         30           4.2.6 EUT Operating Conditions         30           4.2.7 Test Results         31 <td>3</td> <td></td> <td></td> <td></td>	3			
3.2.1 Test Mode Applicability and Tested Channel Detail         9           3.2.1 Test Mode Applicability and Tested Channel Detail         9           3.3 Duty Cycle of Test Signal         11           3.4 Description of Support Units         12           3.4.1 Configuration of System under Test         13           3.5 General Description of Applied Standards and References         14           4 Test Types and Results         15           4.1 Radiated Emission and Bandedge Measurement         15           4.1.1 Limits of Radiated Emission and Bandedge Measurement         15           4.1.2 Test Instruments         16           4.1.3 Test Procedures         18           4.1.4 Deviation from Test Standard         18           4.1.5 Test Setup         19           4.1.6 EUT Operating Conditions         20           4.1.7 Test Results         21           4.2.1 Limits of Conducted Emission Measurement         29           4.2.2 Test Instruments         29           4.2.2 Test Instruments         29           4.2.3 Test Procedures         30           4.2.4 Deviation from Test Standard         30           4.2.5 Test Setup         30           4.2.6 EUT Operating Conditions         30           4.2.7 Test Results         31 <td></td> <td>3 1</td> <td>General Description of EUT (BT-LE)</td> <td>7</td>		3 1	General Description of EUT (BT-LE)	7
3.3       Duty Cycle of Test Signal       .11         3.4       Description of Support Units       .12         3.5       General Description of Applied Standards and References       .14         4       Test Types and Results       .15         4.1       Radiated Emission and Bandedge Measurement       .15         4.1.1       Imits of Radiated Emission and Bandedge Measurement       .15         4.1.2       Test Instruments       .16         4.1.3       Test Procedures       .18         4.1.4       Deviation from Test Standard       .18         4.1.5       Test Setup       .19         4.1.6       EUT Operating Conditions       .20         4.1.7       Test Results       .21         4.2       Conducted Emission Measurement       .29         4.2.1       Limits of Conducted Emission Measurement       .29         4.2.2       Test Instruments       .30         4.2.3       Test Procedures       .30         4.2.4       Deviation from Test Standard       .30         4.2.5       Test Setup       .30         4.2.6       EUT Operating Conditions       .30         4.2.7       Test Results       .31         4.3       Test Se			Description of Test Modes	8
3.4.1       Description of Support Units       12         3.4.1       Configuration of System under Test       13         3.5       General Description of Applied Standards and References       14         4       Test Types and Results       15         4.1       Radiated Emission and Bandedge Measurement       15         4.1.1       Limits of Radiated Emission and Bandedge Measurement       15         4.1.2       Test Instruments       16         4.1.3       Test Procedures       18         4.1.4       Deviation from Test Standard       18         4.1.5       Test Setup       19         4.1.6       EUT Operating Conditions       20         4.1.7       Test Results       20         4.1.7       Test Results       29         4.2.1       Limits of Conducted Emission Measurement       29         4.2.1       Limits of Conducted Emission Measurement       29         4.2.1       Initiation from Test Standard       30         4.2.2       Test Instruments       29         4.2.3       Test Procedures       30         4.2.4       Deviation from Test Standard       30         4.2.5       Test Results       33         4.3.1		3.2.1		
3.4.1 Configuration of System under Test.       13         3.5 General Description of Applied Standards and References       14         4 Test Types and Results       15         4.1 Radiated Emission and Bandedge Measurement       15         4.1.1 Limits of Radiated Emission and Bandedge Measurement       15         4.1.2 Test Instruments       16         4.1.3 Test Procedures       18         4.1.4 Deviation from Test Standard       18         4.1.5 Test Setup       19         4.1.6 EUT Operating Conditions       20         4.1.7 Test Results       21         4.2 Conducted Emission Measurement       29         4.2.1 Limits of Conducted Emission Measurement       29         4.2.2 Test Instruments       29         4.2.3 Test Procedures       30         4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup       30         4.2.6 EUT Operating Conditions       30         4.2.7 Test Results       31         4.3 6B Bandwidth Measurement       33         4.3 1 Limits of 6GB Bandwidth Measurement       33         4.3 2 Test Setup       33         4.3 3 Test Instruments       34         4.4 Conducted Output Power Measurement       35         4.4.1 Li		3.3	, ,	
3.5       General Description of Applied Standards and References       14         4       Test Types and Results       15         4.1       Radiated Emission and Bandedge Measurement       15         4.1.1       Limits of Radiated Emission and Bandedge Measurement       15         4.1.2       Test Instruments       16         4.1.3       Test Procedures       18         4.1.4       Deviation from Test Standard       18         4.1.5       Test Setup       19         4.1.6       EUT Operating Conditions       20         4.1.7       Test Results       21         4.2       Conducted Emission Measurement       29         4.2.1       Limits of Conducted Emission Measurement       29         4.2.2       Test Instruments       29         4.2.3       Test Procedures       30         4.2.4       Deviation from Test Standard       30         4.2.5       Test Setup       30         4.2.6       EUT Operating Conditions       30         4.2.7       Test Results       31         4.3       6dB Bandwidth Measurement       33         4.3.1       Limits of 6dB Bandwidth Measurement       33         4.3.2       Test Setup				
4         Test Types and Results         15           4.1         Radiated Emission and Bandedge Measurement         15           4.1.1         Limits of Radiated Emission and Bandedge Measurement         15           4.1.2         Test Instruments         16           4.1.3         Test Procedures         18           4.1.4         Deviation from Test Standard         18           4.1.5         Test Setup         19           4.1.6         EUT Operating Conditions         20           4.1.7         Test Results         21           4.2         Conducted Emission Measurement         29           4.2.1         Limits of Conducted Emission Measurement         29           4.2.2         Test Instruments         29           4.2.3         Test Procedures         30           4.2.4         Deviation from Test Standard         30           4.2.5         Test Setup         30           4.2.6         EUT Operating Conditions         30           4.2.7         Test Results         31           4.3         11 Standard         33           4.3.1         Limits of Gold Bandwidth Measurement         33           4.3.2         Test Setup         33				
4.1 Radiated Emission and Bandedge Measurement.       15         4.1.1 Limits of Radiated Emission and Bandedge Measurement       15         4.1.2 Test Instruments       16         4.1.3 Test Procedures.       18         4.1.4 Deviation from Test Standard       18         4.1.5 Test Setup.       19         4.1.6 EUT Operating Conditions.       20         4.1.7 Test Results.       21         4.2 Conducted Emission Measurement.       29         4.2.1 Limits of Conducted Emission Measurement.       29         4.2.2 Test Instruments.       29         4.2.3 Test Procedures.       30         4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup.       30         4.2.6 EUT Operating Conditions.       30         4.2.7 Test Results       31         4.3 6dB Bandwidth Measurement.       33         4.3.1 Limits of 6dB Bandwidth Measurement.       33         4.3.2 Test Setup.       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup.       35         4.4.3 Test Instruments		3.5	General Description of Applied Standards and References	14
4.1.1       Limits of Radiated Emission and Bandedge Measurement       15         4.1.2       Test Instruments       16         4.1.3       Test Procedures       18         4.1.4       Deviation from Test Standard       18         4.1.5       Test Setup       19         4.1.6       EUT Operating Conditions       20         4.1.7       Test Results       21         4.2       Conducted Emission Measurement       29         4.2.1       Limits of Conducted Emission Measurement       29         4.2.1       Test Instruments       29         4.2.2       Test Instruments       30         4.2.3       Test Procedures       30         4.2.4       Deviation from Test Standard       30         4.2.5       Test Setup       30         4.2.6       EUT Operating Conditions       30         4.2.7       Test Setup       33         4.3.1       Limits of 6dB Bandwidth Measurement       33         4.3.2       Test Setup       33         4.3.3       Test Instruments       33         4.3.4       Test Setup       33         4.3.5       Deviation from Test Standard       35         4.4.1       <	4	Т	est Types and Results	15
4.1.2 Test Instruments       16         4.1.3 Test Procedures       18         4.1.4 Deviation from Test Standard       18         4.1.5 Test Setup       19         4.1.6 EUT Operating Conditions       20         4.1.7 Test Results       21         4.2 Conducted Emission Measurement       29         4.2.1 Limits of Conducted Emission Measurement       29         4.2.2 Test Instruments       29         4.2.3 Test Procedures       30         4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup       30         4.2.6 EUT Operating Conditions       30         4.2.7 Test Results       31         4.3 6dB Bandwidth Measurement       33         4.3.1 Limits of 6dB Bandwidth Measurement       33         4.3.2 Test Setup       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Ins		4.1	Radiated Emission and Bandedge Measurement	15
4.1.3 Test Procedures.       18         4.1.4 Deviation from Test Standard       18         4.1.5 Test Setup.       19         4.1.6 EUT Operating Conditions.       20         4.1.7 Test Results       21         4.2 Conducted Emission Measurement       29         4.2.1 Limits of Conducted Emission Measurement       29         4.2.2 Test Instruments       29         4.2.3 Test Procedures.       30         4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup.       30         4.2.6 EUT Operating Conditions.       30         4.2.7 Test Results       31         4.3 6BB Bandwidth Measurement       33         4.3.1 Limits of 6dB Bandwidth Measurement.       33         4.3.2 Test Setup.       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions.       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup.       35         4.4.3 Test Instruments       35         4.4.		4.1.1	Limits of Radiated Emission and Bandedge Measurement	15
4.1.4 Deviation from Test Standard       18         4.1.5 Test Setup.       19         4.1.6 EUT Operating Conditions       20         4.1.7 Test Results       21         4.2 Conducted Emission Measurement       29         4.2.1 Limits of Conducted Emission Measurement       29         4.2.2 Test Instruments       29         4.2.3 Test Procedures       30         4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup       30         4.2.6 EUT Operating Conditions       30         4.2.7 Test Results       31         4.3 6dB Bandwidth Measurement       33         4.3.1 Limits of 6dB Bandwidth Measurement       33         4.3.2 Test Setup       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT		4.1.2	Test Instruments	16
4.1.5 Test Setup.       19         4.1.6 EUT Operating Conditions       20         4.1.7 Test Results       21         4.2 Conducted Emission Measurement       29         4.2.1 Limits of Conducted Emission Measurement       29         4.2.2 Test Instruments       29         4.2.3 Test Procedures       30         4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup       30         4.2.6 EUT Operating Conditions       30         4.2.7 Test Results       31         4.3 6dB Bandwidth Measurement       33         4.3.1 Limits of 6dB Bandwidth Measurement       33         4.3.2 Test Setup       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Procedures       35         4.4.4 Est Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Opera				
4.1.6 EUT Operating Conditions.       20         4.1.7 Test Results       21         4.2 Conducted Emission Measurement       29         4.2.1 Limits of Conducted Emission Measurement       29         4.2.2 Test Instruments       29         4.2.3 Test Procedures       30         4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup       30         4.2.6 EUT Operating Conditions.       30         4.2.7 Test Results       31         4.3 6dB Bandwidth Measurement       33         4.3.1 Limits of 6dB Bandwidth Measurement       33         4.3.2 Test Setup       33         4.3.3 Test Instruments       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.5.6 EUT Operating Conditions       35         4.5.7 Test Results       36				
4.1.7 Test Results       21         4.2 Conducted Emission Measurement       29         4.2.1 Limits of Conducted Emission Measurement       29         4.2.2 Test Instruments       29         4.2.3 Test Procedures       30         4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup       30         4.2.6 EUT Operating Conditions       30         4.2.7 Test Results       31         4.3 6dB Bandwidth Measurement       33         4.3.1 Limits of 6dB Bandwidth Measurement       33         4.3.2 Test Setup       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions       35         4.4.7 Test Results       36         4.5 Power Sp				
4.2       Conducted Emission Measurement       29         4.2.1       Limits of Conducted Emission Measurement       29         4.2.2       Test Instruments       29         4.2.3       Test Procedures       30         4.2.4       Deviation from Test Standard       30         4.2.5       Test Setup       30         4.2.6       EUT Operating Conditions       30         4.2.7       Test Results       31         4.3       6dB Bandwidth Measurement       33         4.3.1       Limits of 6dB Bandwidth Measurement       33         4.3.2       Test Setup       33         4.3.3       Test Instruments       33         4.3.4       Test Procedure       33         4.3.5       Deviation from Test Standard       33         4.3.6       EUT Operating Conditions       33         4.3.7       Test Results       34         4.4       Conducted Output Power Measurement       35         4.4.1       Limits of Conducted Output Power Measurement       35         4.4.2       Test Setup       35         4.4.3       Test Instruments       35         4.4.4       Test Setup       35         4.4.5				
4.2.1 Limits of Conducted Emission Measurement       29         4.2.2 Test Instruments       29         4.2.3 Test Procedures       30         4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup       30         4.2.6 EUT Operating Conditions       30         4.2.7 Test Results       31         4.3 6dB Bandwidth Measurement       33         4.3.1 Limits of 6dB Bandwidth Measurement       33         4.3.2 Test Setup       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37     <				
4.2.2 Test Instruments       29         4.2.3 Test Procedures.       30         4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup.       30         4.2.6 EUT Operating Conditions.       30         4.2.7 Test Results.       31         4.3 6dB Bandwidth Measurement       33         4.3.1 Limits of 6dB Bandwidth Measurement       33         4.3.2 Test Setup.       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions.       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup.       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures.       35         4.4.5 Deviation from Test Standard       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup.       37         4.5.3 Test Instruments       37         4.5.5				
4.2.3 Test Procedures       30         4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup       30         4.2.6 EUT Operating Conditions       30         4.2.7 Test Results       31         4.3 6dB Bandwidth Measurement       33         4.3.1 Limits of 6dB Bandwidth Measurement       33         4.3.2 Test Setup       33         4.3.3 Test Instruments       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37 <tr< td=""><td></td><td></td><td></td><td></td></tr<>				
4.2.4 Deviation from Test Standard       30         4.2.5 Test Setup       30         4.2.6 EUT Operating Conditions       30         4.2.7 Test Results       31         4.3 6dB Bandwidth Measurement       33         4.3.1 Limits of 6dB Bandwidth Measurement       33         4.3.2 Test Setup       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.2.5 Test Setup.       30         4.2.6 EUT Operating Conditions.       30         4.2.7 Test Results       31         4.3 6dB Bandwidth Measurement.       33         4.3.1 Limits of 6dB Bandwidth Measurement.       33         4.3.2 Test Setup.       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions.       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement.       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup.       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures.       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions.       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup.       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.2.6       EUT Operating Conditions				
4.2.7 Test Results       31         4.3 6dB Bandwidth Measurement       33         4.3.1 Limits of 6dB Bandwidth Measurement       33         4.3.2 Test Setup       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.3       6dB Bandwidth Measurement       33         4.3.1       Limits of 6dB Bandwidth Measurement       33         4.3.2       Test Setup       33         4.3.3       Test Instruments       33         4.3.4       Test Procedure       33         4.3.5       Deviation from Test Standard       33         4.3.6       EUT Operating Conditions       33         4.3.7       Test Results       34         4.4       Conducted Output Power Measurement       35         4.4.1       Limits of Conducted Output Power Measurement       35         4.4.2       Test Setup       35         4.4.3       Test Instruments       35         4.4.4       Test Procedures       35         4.4.5       Deviation from Test Standard       35         4.4.6       EUT Operating Conditions       35         4.4.7       Test Results       36         4.5       Power Spectral Density Measurement       37         4.5.1       Limits of Power Spectral Density Measurement       37         4.5.2       Test Instruments       37         4.5.3       Test Instruments       37         4.5.4       Test Procedure       37				
4.3.2 Test Setup.       33         4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup.       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures.       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions.       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup.       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.3.3 Test Instruments       33         4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37		4.3.1	Limits of 6dB Bandwidth Measurement	33
4.3.4 Test Procedure       33         4.3.5 Deviation from Test Standard       33         4.3.6 EUT Operating Conditions       33         4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37		4.3.2	Test Setup	33
4.3.5       Deviation from Test Standard       33         4.3.6       EUT Operating Conditions       33         4.3.7       Test Results       34         4.4       Conducted Output Power Measurement       35         4.4.1       Limits of Conducted Output Power Measurement       35         4.4.2       Test Setup       35         4.4.3       Test Instruments       35         4.4.4       Test Procedures       35         4.4.5       Deviation from Test Standard       35         4.4.6       EUT Operating Conditions       35         4.4.7       Test Results       36         4.5       Power Spectral Density Measurement       37         4.5.1       Limits of Power Spectral Density Measurement       37         4.5.2       Test Setup       37         4.5.3       Test Instruments       37         4.5.4       Test Procedure       37         4.5.5       Deviation from Test Standard       37		4.3.3	Test Instruments	33
4.3.6       EUT Operating Conditions       33         4.3.7       Test Results       34         4.4       Conducted Output Power Measurement       35         4.4.1       Limits of Conducted Output Power Measurement       35         4.4.2       Test Setup       35         4.4.3       Test Instruments       35         4.4.4       Test Procedures       35         4.4.5       Deviation from Test Standard       35         4.4.6       EUT Operating Conditions       35         4.4.7       Test Results       36         4.5       Power Spectral Density Measurement       37         4.5.1       Limits of Power Spectral Density Measurement       37         4.5.2       Test Setup       37         4.5.3       Test Instruments       37         4.5.4       Test Procedure       37         4.5.5       Deviation from Test Standard       37				
4.3.7 Test Results       34         4.4 Conducted Output Power Measurement       35         4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.4       Conducted Output Power Measurement       35         4.4.1       Limits of Conducted Output Power Measurement       35         4.4.2       Test Setup       35         4.4.3       Test Instruments       35         4.4.4       Test Procedures       35         4.4.5       Deviation from Test Standard       35         4.4.6       EUT Operating Conditions       35         4.4.7       Test Results       36         4.5       Power Spectral Density Measurement       37         4.5.1       Limits of Power Spectral Density Measurement       37         4.5.2       Test Setup       37         4.5.3       Test Instruments       37         4.5.4       Test Procedure       37         4.5.5       Deviation from Test Standard       37				
4.4.1 Limits of Conducted Output Power Measurement       35         4.4.2 Test Setup       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.4.2 Test Setup.       35         4.4.3 Test Instruments       35         4.4.4 Test Procedures.       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions.       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup.       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.4.3 Test Instruments       35         4.4.4 Test Procedures       35         4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.4.4 Test Procedures				
4.4.5 Deviation from Test Standard       35         4.4.6 EUT Operating Conditions       35         4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.4.6 EUT Operating Conditions				
4.4.7 Test Results       36         4.5 Power Spectral Density Measurement       37         4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.5       Power Spectral Density Measurement       37         4.5.1       Limits of Power Spectral Density Measurement       37         4.5.2       Test Setup       37         4.5.3       Test Instruments       37         4.5.4       Test Procedure       37         4.5.5       Deviation from Test Standard       37				
4.5.1 Limits of Power Spectral Density Measurement       37         4.5.2 Test Setup       37         4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.5.2 Test Setup				
4.5.3 Test Instruments       37         4.5.4 Test Procedure       37         4.5.5 Deviation from Test Standard       37				
4.5.5 Deviation from Test Standard				
4.5.6 EUT Operating Condition				
		4.5.6	EUT Operating Condition	37



4.5.7	Test Results	38
4.6	Conducted Out of Band Emission Measurement	39
4.6.1	Limits of Conducted Out of Band Emission Measurement	39
4.6.2	Test Setup	39
4.6.3	Test Instruments	39
4.6.4	Test Procedure	39
	Deviation from Test Standard	
4.6.6	EUT Operating Condition	39
4.6.7	Test Results	39
5 F	ictures of Test Arrangements	42
Annex	A - Band-Edge Measurement	43
Append	lix – Information of the Testing Laboratories	45



## **Release Control Record**

Issue No.	Description	Date Issued
RFBARR-WTW-P21030485-2	Original release.	May 26, 2021



#### 1 Certificate of Conformity

Product: 2TX 11ax (WiFi6E) BW160 + BT/BLE Combo Card

Brand: MediaTek

Test Model: MT7922A22M

Sample Status: Engineering sample

**Applicant:** MediaTek Inc.

**Test Date:** Mar. 17 to May 04, 2021

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)

ANSI C63.10: 2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by: May 26, 2021

Phoenix Huang / Specialist

**Approved by :** , **Date**: May 26, 2021

Clark Lin / Technical Manager



## 2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)					
FCC Clause	Test Item	Result	Remarks		
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -15.77 dB at 0.15000 MHz.		
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -3.3 dB at 720.86 MHz.		
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.		
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.		
15.247(b)	Conducted power	PASS	Meet the requirement of limit.		
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.		
15.203	Antenna Requirement	PASS	Antenna connector is i-pex(MHF) not a standard connector.		

#### Note:

- 1. For 2.4 GHz band compliance with rule 15.247(d) of the band-edge items, the test plots were recorded in Annex A.
- 2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

## 2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.9 dB
Conducted emissions	-	2.5 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.1 dB
Radiated Effissions up to 1 GHz	30MHz ~ 1GHz	5.5 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.1 dB
Radiated Effissions above 1 GHZ	18GHz ~ 40GHz	5.3 dB

## 2.2 Modification Record

There were no modifications required for compliance.



### 3 General Information

#### 3.1 General Description of EUT (BT-LE)

Product	2TX 11ax (WiFi6E) BW160 + BT/BLE Combo Card
Brand	MediaTek
Test Model	MT7922A22M
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc from host equipment
Modulation Type	GFSK
Modulation Technology	DTS
Transfer Rate	Up to 2 Mbps
Operating Frequency	2.402 ~ 2.480 GHz
Number of Channel	40
Output Power	22.284 mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Data Cable Supplied	NA

#### Note:

1. There are Bluetooth and WLAN (2.4GHz & 5GHz) technology used for the EUT.

2. Simultaneously transmission condition.

Condition	Technology			
1	WLAN (5GHz) Bluetooth			
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.				

3. The antennas provided to the EUT, please refer to the following table:

Antenna No.	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	Chain0	PSA	RFMTA340718EMLB302	3.18 4.92	2.4~2.4835 5.15~5.85	PIFA	i-pex(MHF)	200
2	Chain1	Chain1 PSA RFMTA340718EMLB302		3.18 4.92	2.4~2.4835 5.15~5.85	PIFA	i-pex(MHF)	200
3	Chain0	PSA	RFMTA311020EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 5.15~5.85 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	200
4	Chain1	PSA	RFMTA311020EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 5.15~5.85 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	200
Note: Ma	Note: Max. gain was selected for the final test.							

4. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

5. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.



# 3.2 Description of Test Modes

# BT-LE channels:

DI-LE Clian			Ob annuals Tu	ma fam DT C	Channels Type for
RF	RF Center	Channel	Channels Type for BT 5.x		BT 4.x
Channel	Frequency	Index	Maximum Data Rate 2Mbps	Maximum Data Rate 1Mbps	Maximum Data Rate 1Mbps
0	2402 MHz	37		•	•
1	2404 MHz	0	•		•
2	2406 MHz	1	•		•
3	2408 MHz	2	•		•
4	2410 MHz	3	•		•
5	2412 MHz	4	•		•
6	2414 MHz	5	•		•
7	2416 MHz	6	•		•
8	2418 MHz	7	•		•
9	2420 MHz	8	•		•
10	2422 MHz	9	•		•
11	2424 MHz	10	•		•
12	2426 MHz	38		•	•
13	2428 MHz	11	•		•
14	2430 MHz	12	•		•
15	2432 MHz	13	•		•
16	2434 MHz	14	•		•
17	2436 MHz	15	•		•
18	2438 MHz	16	•		•
19	2440 MHz	17	•		•
20	2442 MHz	18	•		•
21	2444 MHz	19	•		•
22	2446 MHz	20	•		•
23	2448 MHz	21	•		•
24	2450 MHz	22	•		•
25	2452 MHz	23	•		•
26	2454 MHz	24	•		•
27	2456 MHz	25	•		•
28	2458 MHz	26	•		•
29	2460 MHz	27	•		•
30	2462 MHz	28	•		•
31	2464 MHz	29	•		•
32	2466 MHz	30	•		•
33	2468 MHz	31	•		•
34	2470 MHz	32	•		•
35	2472 MHz	33	•		•
36	2474 MHz	34	•		•
37	2476 MHz	35	•		•
38	2478 MHz	36	•		•
39	2480 MHz	39		•	•



#### 3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE		APPLICA	ABLE TO		DESCRIPTION
MODE	RE≥1G	RE<1G	PLC	APCM	DESCRIPTION
-	√	V	√	√	-

Where

RE≥1G: Radiated Emission above 1GHz &

Bandedge Measurement

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

**APCM:** Antenna Port Conducted Measurement

Note: The EUT's PIFA antenna had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-place.** 

## Radiated Emission Test (Above 1GHz):

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE	DATA RATE (Mbps)
0 to 39	0, 19, 39	GFSK	1
1 to 38	1, 19, 38	GFSK	2

## Radiated Emission Test (Below 1GHz):

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL		TESTED CHANNEL	MODULATION TYPE	DATA RATE (Mbps)
	0 to 39	19	GFSK	1

## **Power Line Conducted Emission Test:**

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☑ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL TESTED CHANNEL		MODULATION TYPE	DATA RATE (Mbps)	
0 to 39	19	GFSK	1	



## **Antenna Port Conducted Measurement:**

- This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE	DATA RATE (Mbps)
0 to 39	0, 19, 39	GFSK	1
1 to 38	1, 19, 38	GFSK	2

## **Test Condition:**

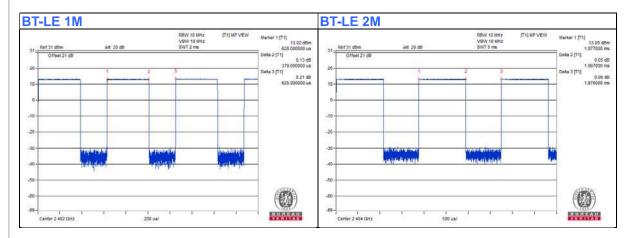
APPLICABLE TO ENVIRONMENTAL CONDITIONS		INPUT POWER	TESTED BY
RE≥1G	25deg. C, 75%RH,	120Vac. 60Hz	Sampson Chen,
NL210	25deg. C, 65%RH	120 vac, 00112	Sampson Chen
RE<1G	22deg. C, 62%RH	120Vac, 60Hz	Sampson Chen
<b>PLC</b> 25deg. C, 68%RH 120Vac, 60Hz		120Vac, 60Hz	Sampson Chen
APCM	25deg. C, 60%RH	120Vac, 60Hz	Kevin Ko



## 3.3 Duty Cycle of Test Signal

Duty cycle of test signal is < 98 %, duty factor shall be considered.

BT-LE 1M: Duty cycle = 0.379 ms/0.625 ms = 0.606, Duty factor = 10 \* log( 1/Duty cycle) = 2.17 dB BT-LE 2M: Duty cycle = 1.067 ms/1.876 ms = 0.569, Duty factor = 10 \* log( 1/Duty cycle) = 2.45 dB





## 3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC <b>I</b> D	Remarks
A.	Laptop	DELL	E5430	HYV4VY1	DoC	Provided by Lab
В.	Test Tool	MediaTek	MTK1849	NA	NA	Supplied by client
C.	Adapter	Dell	LA65NS2-01	NA	NA	Provided by Lab

#### Note:

<sup>1.</sup> All power cords of the above support units are non-shielded (1.8m).

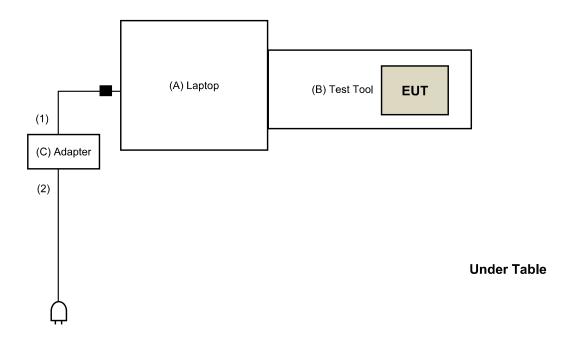
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.8	No	1	Provided by Lab
2.	AC Cable	1	1.8	No	0	Provided by Lab

Note: The core(s) is(are) originally attached to the cable(s).

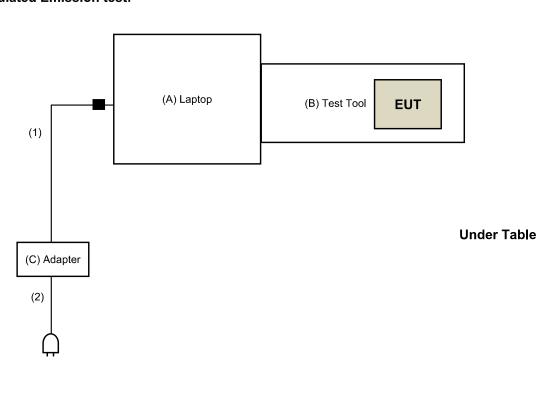


## 3.4.1 Configuration of System under Test

## For AC Power Conducted Emission test:



## For Radiated Emission test:





## 3.5 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and references:

**Test Standard:** 

FCC Part 15, Subpart C (15.247) ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

**References Test Guidance:** 

KDB 558074 D01 15.247 Meas Guidance v05r02

All test items have been performed as a reference to the above KDB test guidance.



#### 4 Test Types and Results

## 4.1 Radiated Emission and Bandedge Measurement

## 4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired

power:

power.		
Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

#### Note:

- 1. The lower limit shall apply at the transition frequencies.
- 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.



## 4.1.2 Test Instruments

For Radiated Emission (Below 1GHz) & Bandedge test:

DESCRIPTION &	MODEL NO		CALIBRATED	CALIBRATED
MANUFACTURER	MODEL NO.	SERIAL NO.	DATE	UNTIL
Test Receiver Agilent	N9038A	MY51210202	Dec. 01, 2020	Nov. 30, 2021
Pre-Amplifier EMCI	EMC001340	980142	May 25, 2020	May 24, 2021
Loop Antenna Electro-Metrics	EM-6879	264	Mar. 05, 2021	Mar. 04, 2022
RF Cable	5D-FB	LOOPCAB-001	Jan. 07, 2021	Jan. 06, 2022
RF Cable	5D-FB	LOOPCAB-002	Jan. 07, 2021	Jan. 06, 2022
Pre-Amplifier EMCI	EMC330N	980701	Mar. 10, 2021	Mar. 09, 2022
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Nov. 06, 2020	Nov. 05, 2021
RF Cable	8D	966-4-1	Mar. 17, 2021	Mar. 16, 2022
RF Cable	8D	966-4-2	Mar. 17, 2021	Mar. 16, 2022
RF Cable	8D	966-4-3	Mar. 17, 2021	Mar. 16, 2022
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-03	Jan. 11, 2021	Jan. 10, 2022
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Nov. 22, 2020	Nov. 21, 2021
Pre-Amplifier EMCI	EMC 12630 SE	980638	Apr. 08, 2020	Apr. 07, 2021
RF Cable	EMC104-SM-SM-1200	160922	Dec. 25, 2020	Dec. 24, 2021
RF Cable	EMC104-SM-SM-2000	180502	Apr. 29, 2020	Apr. 28, 2021
RF Cable	EMC104-SM-SM-6000	180418	Apr. 29, 2020	Apr. 28, 2021
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 11, 2021	Jan. 10, 2022
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 22, 2020	Nov. 21, 2021
RF Cable	EMC102-KM-KM-1200	160924	Jan. 11, 2021	Jan. 10, 2022
RF Cable	EMC-KM-KM-4000	200214	Mar. 10, 2021	Mar. 09, 2022
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

#### Note

- 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
- 2. The test was performed in 966 Chamber No. 4.
- 3. Tested Date: Mar. 17 to 19, 2021



For Radiated Emission (Above 1GHz) test:

DESCRIPTION &			CALIBRATED	CALIBRATED
MANUFACTURER	MODEL NO.	SERIAL NO.	DATE	UNTIL
Test Receiver Agilent	N9038A	MY51210202	Dec. 01, 2020	Nov. 30, 2021
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Nov. 22, 2020	Nov. 21, 2021
Pre-Amplifier EMCI	EMC 12630 SE	980638	Apr. 07, 2021	Apr. 06, 2022
RF Cable	EMC104-SM-SM-1200	160922	Dec. 25, 2020	Dec. 24, 2021
RF Cable	EMC104-SM-SM-2000	180502	Apr. 26, 2021	Apr. 25, 2022
RF Cable	EMC104-SM-SM-6000	180418	Apr. 26, 2021	Apr. 25, 2022
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 11, 2021	Jan. 10, 2022
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 22, 2020	Nov. 21, 2021
RF Cable	EMC102-KM-KM-1200	160924	Jan. 11, 2021	Jan. 10, 2022
RF Cable	EMC-KM-KM-4000	200214	Mar. 10, 2021	Mar. 09, 2022
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

#### Note:

- 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
- 2. The test was performed in 966 Chamber No. 4.
- 3. Tested Date: May 04, 2021

#### For other test items:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	May 29, 2020	May 28, 2021
Power meter Anritsu	ML2495A	1529002	July 22, 2020	July 21, 2021
Power sensor Anritsu	MA2411B	1339443	July 22, 2020	July 21, 2021
10dB Attenuator Woken	MDCS18N-10	MDCS18N-10-01	Apr. 13, 2021	Apr. 12, 2022
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA

- **NOTE**: 1. The test was performed in Oven room 2.
  - 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  - 3. Tested Date: Apr. 15, 2021



#### 4.1.3 Test Procedures

#### For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

#### Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

#### For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

#### Note:

- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- 3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
- 4. All modes of operation were investigated and the worst-case emissions are reported.

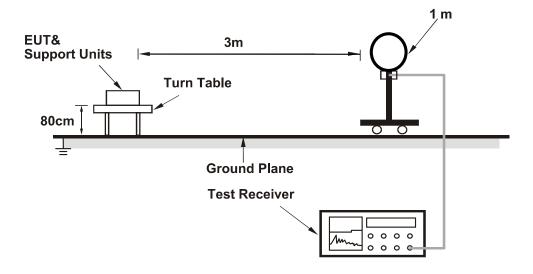
#### 4.1.4 Deviation from Test Standard

No deviation.

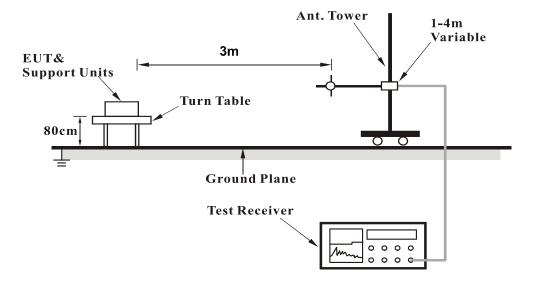


## 4.1.5 Test Setup

## For Radiated emission below 30MHz

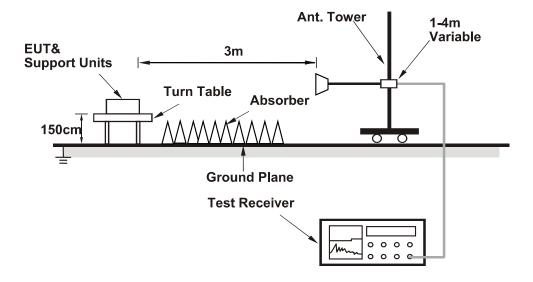


## For Radiated emission 30MHz to 1GHz





## For Radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

## 4.1.6 EUT Operating Conditions

- a. Placed the EUT on the testing table.
- b. Controlling software (MT7922\_BT\_Tool\_PKT022) has been activated to set the EUT under transmission condition continuously at specific channel frequency.



#### 4.1.7 Test Results

## **Above 1GHz Data:**

## **BT-LE 1M**

RF Mode	TX BT-LE 1M	Channel	CH 0: 2402 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

	Antenna Polarity & Test Distance : Horizontal at 3 m									
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)		
1	2387.80	54.4 PK	74.0	-19.6	2.49 H	55	58.6	-4.2		
2	2387.80	44.3 AV	54.0	<b>-</b> 9.7	2.49 H	55	48.5	-4.2		
3	*2402.00	113.6 PK			2.49 H	55	117.9	-4.3		
4	*2402.00	112.8 AV			2.49 H	55	117.1	-4.3		
5	4804.00	49.2 PK	74.0	-24.8	1.96 H	69	48.8	0.4		
6	4804.00	46.2 AV	54.0	-7.8	1.96 H	69	45.8	0.4		
		A 4 .	Dalau!4	0 Taat D:	-4 V	4!1-40				

	Antenna Polarity & Test Distance : Vertical at 3 m									
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)		
1	2389.55	55.6 PK	74.0	-18.4	1.24 V	95	59.8	-4.2		
2	2389.55	44.0 AV	54.0	-10.0	1.24 V	95	48.2	-4.2		
3	*2402.00	112.5 PK			1.24 V	95	116.8	-4.3		
4	*2402.00	111.8 AV			1.24 V	95	116.1	<b>-</b> 4.3		
5	4804.00	47.9 PK	74.0	-26.1	2.65 V	111	47.5	0.4		
6	4804.00	44.7 AV	54.0	-9.3	2.65 V	111	44.3	0.4		

#### Remarks:

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) Pre-Amplifier Factor(dB)
- 3. Margin value = Emission Level Limit value
- 4. The other emission levels were very low against the limit.
- 5. " \* ": Fundamental frequency.



RF Mode	TX BT-LE 1M	Channel	CH 19: 2440 MHz	
Fraguency Banga	1GHz ~ 25GHz	Detector Function	Peak (PK)	
Frequency Range		Detector Function	Average (AV)	

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	113.7 PK			2.53 H	57	118.0	-4.3
2	*2440.00	113.0 AV			2.53 H	57	117.3	-4.3
3	4880.00	48.8 PK	74.0	<b>-</b> 25.2	1.97 H	82	48.3	0.5
4	4880.00	45.7 AV	54.0	<b>-</b> 8.3	1.97 H	82	45.2	0.5
5	7320.00	41.8 PK	74.0	<b>-</b> 32.2	1.47 H	173	35.0	6.8
6	7320.00	30.6 AV	54.0	-23.4	1.47 H	173	23.8	6.8
Automo Bolovity 9 Took Distance : Vertical et 2 m								

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	112.3 PK			1.26 V	103	116.6	-4.3
2	*2440.00	111.8 AV			1.26 V	103	116.1	-4.3
3	4880.00	48.4 PK	74.0	<b>-</b> 25.6	2.55 V	91	47.9	0.5
4	4880.00	45.1 AV	54.0	<b>-</b> 8.9	2.55 V	91	44.6	0.5
5	7320.00	42.2 PK	74.0	-31.8	1.47 V	196	35.4	6.8
6	7320.00	30.5 AV	54.0	<b>-</b> 23.5	1.47 V	196	23.7	6.8

## Remarks:

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) Pre-Amplifier Factor(dB)
- 3. Margin value = Emission Level Limit value
- 4. The other emission levels were very low against the limit.
- 5. " \* ": Fundamental frequency.