



LTE24_5 M_Protection_CarrierOff_Low_QPSK_1RB

F-TP22-03 (Rev. 06) Page 174 of 218





LTE24_5 M_Protection_CarrierOff_Mid_QPSK_1RB

F-TP22-03 (Rev. 06) Page 175 of 218





LTE24_5 M_Protection_CarrierOff_High_QPSK_1RB

F-TP22-03 (Rev. 06) Page 176 of 218

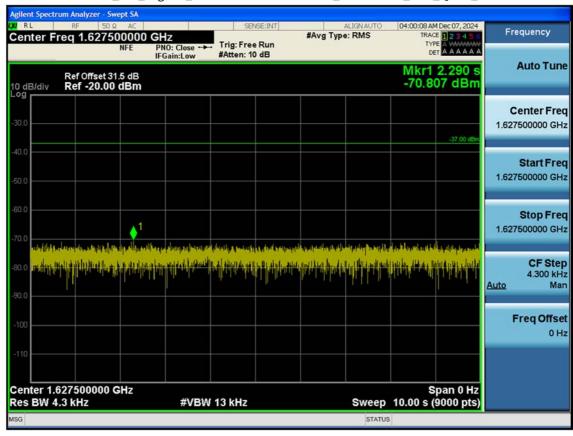




LTE24_10 M_Protection_CarrierOff_Low_QPSK_1RB

F-TP22-03 (Rev. 06) Page 177 of 218

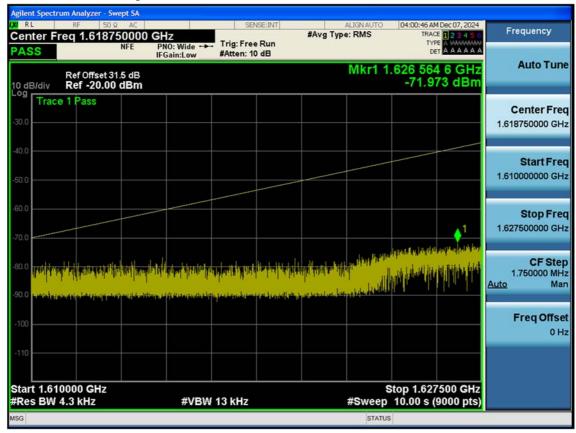




LTE24_5 M_ Ligado_Out of channel emissions_1627.5 MHz_Low_QPSK_1RB

F-TP22-03 (Rev. 06) Page 178 of 218





 $LTE24_5\ M_Ligado_Out\ of\ channel\ emissions_1610\ -\ 1627.5\ MHz_Low_QPSK_1RB$

F-TP22-03 (Rev. 06) Page 179 of 218





LTE24_5 M_ Ligado_Out of channel emissions_1608 - 1610 MHz_Low_QPSK_1RB

F-TP22-03 (Rev. 06) Page 180 of 218





LTE24_5 M_ Ligado_Out of channel emissions_1541 - 1608 MHz_Low_QPSK_1RB

F-TP22-03 (Rev. 06) Page 181 of 218

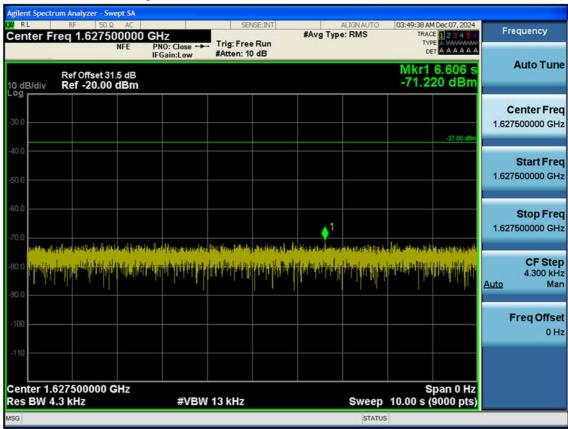




LTE24_5 M_ Ligado_Out of channel emissions_1645.5 - 1646.5 MHz_Low_QPSK_1RB

F-TP22-03 (Rev. 06) Page 182 of 218





LTE24_5 M_ Ligado_Out of channel emissions_1627.5 MHz _Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 183 of 218



03:50:17 AM Dec 07, 2024 TRACE 1 2 3 4 5 6 RL Frequency #Avg Type: RMS Center Freq 1.618750000 GHz Trig: Free Run #Atten: 10 dB TYPE PNO: Wide ---IFGain:Low PASS **Auto Tune** Mkr1 1.627 435 8 GHz -72.795 dBm Ref Offset 31.5 dB Ref -20.00 dBm 10 dB/div Log Trace 1 Pass Center Freq 1.618750000 GHz Start Freq 1.610000000 GHz Stop Freq 1.627500000 GHz CF Step 1.750000 MHz Auto Man **Freq Offset** 0 Hz Start 1.610000 GHz #Res BW 4.3 kHz Stop 1.627500 GHz #Sweep 10.00 s (9000 pts)

#VBW 13 kHz

 $LTE24_5\ M_Ligado_Out\ of\ channel\ emissions_1610\ -\ 1627.5\ MHz\ _Low_QPSK_FullRB$

F-TP22-03 (Rev. 06) Page 184 of 218





LTE24_5 M_ Ligado_Out of channel emissions_1608 - 1610 MHz _Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 185 of 218

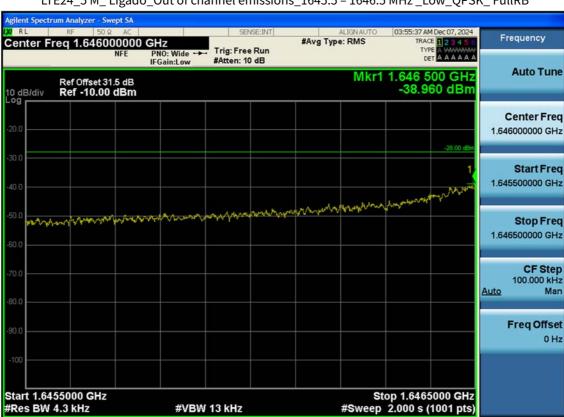




LTE24_5 M_ Ligado_Out of channel emissions_1541 - 1608 MHz _Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 186 of 218

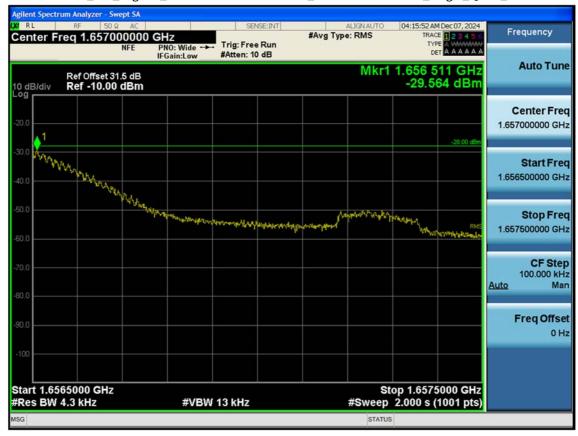




LTE24_5 M_ Ligado_Out of channel emissions_1645.5 - 1646.5 MHz _Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 187 of 218





LTE24_5 M_ Ligado_Out of channel emissions_ 1656.5-1657.5 MHz_ High _QPSK_1RB

F-TP22-03 (Rev. 06) Page 188 of 218

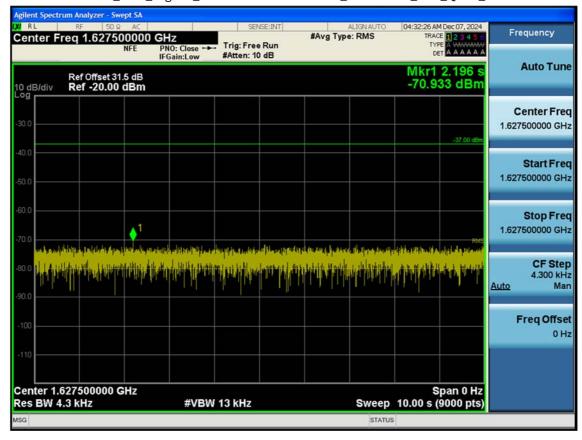




LTE24_5 M_ Ligado_Out of channel emissions_ 1656.5-1657.5 MHz_ High _QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 189 of 218

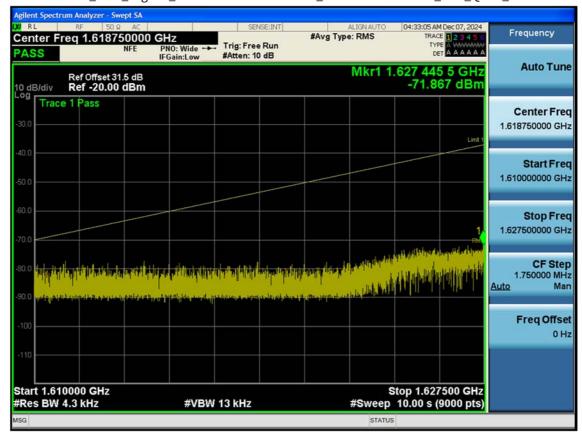




LTE24_10 M_ Ligado_Out of channel emissions_1627.5 MHz_Low_QPSK_1RB

F-TP22-03 (Rev. 06) Page 190 of 218





LTE24_10 M_ Ligado_Out of channel emissions_1610 - 1627.5 MHz_Low_QPSK_1RB

F-TP22-03 (Rev. 06) Page 191 of 218





LTE24_10 M_ Ligado_Out of channel emissions_1608 - 1610 MHz_Low_QPSK_1RB

F-TP22-03 (Rev. 06) Page 192 of 218





LTE24_10 M_ Ligado_Out of channel emissions_1541 - 1608 MHz_Low_QPSK_1RB

F-TP22-03 (Rev. 06) Page 193 of 218

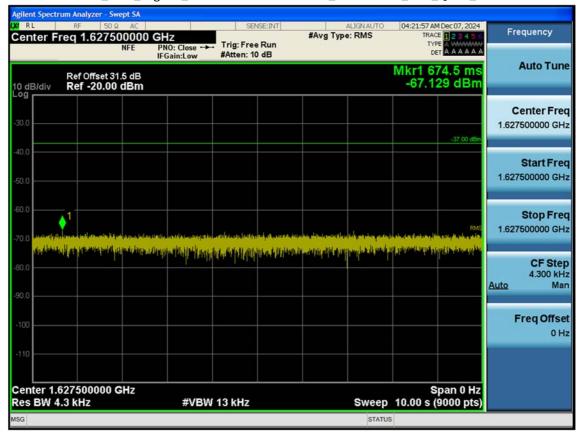




LTE24_10 M_ Ligado_Out of channel emissions_ 1645.5-1646.5 MHz_Low_QPSK_1RB

F-TP22-03 (Rev. 06) Page 194 of 218





LTE24_10 M_ Ligado_Out of channel emissions_1627.5 MHz _Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 195 of 218



04:22:36 AM Dec 07, 2024 TRACE 1 2 3 4 5 6 TYPE A WARRANG RL Frequency Center Freq 1.618750000 GHz #Avg Type: RMS Trig: Free Run #Atten: 10 dB PNO: Wide ---IFGain:Low PASS **Auto Tune** Mkr1 1.627 474 7 GHz -67.506 dBm Ref Offset 31.5 dB Ref -20.00 dBm 10 dB/div Log Trace 1 Pass Center Freq 1.618750000 GHz Limit Start Freq 1.610000000 GHz Stop Freq 1.627500000 GHz CF Step 1.750000 MHz Auto Man **Freq Offset** 0 Hz Start 1.610000 GHz #Res BW 4.3 kHz Stop 1.627500 GHz #Sweep 10.00 s (9000 pts) **#VBW 13 kHz**

 $LTE24_10\ M_Ligado_Out\ of\ channel\ emissions_1610\ -\ 1627.5\ MHz\ _Low_QPSK_FullRB$

F-TP22-03 (Rev. 06) Page 196 of 218





LTE24_10 M_ Ligado_Out of channel emissions_1608 - 1610 MHz _Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 197 of 218





LTE24_10 M_ Ligado_Out of channel emissions_1541 - 1608 MHz _Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 198 of 218



LTE24_10 M_ Ligado_Out of channel emissions_ 1645.5-1646.5 MHz _Low_QPSK_ FullRB



F-TP22-03 (Rev. 06) Page 199 of 218

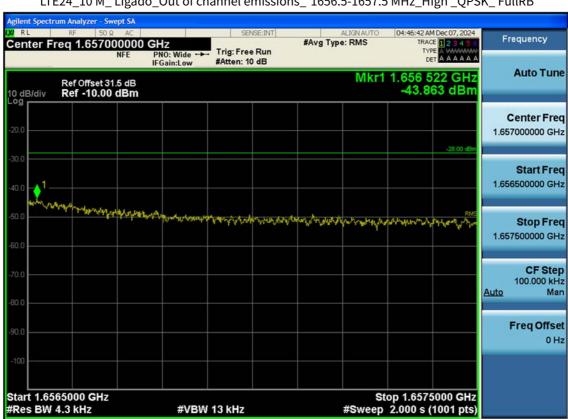




LTE24_10 M_ Ligado_Out of channel emissions_ 1656.5-1657.5 MHz_High_QPSK_ 1RB

F-TP22-03 (Rev. 06) Page 200 of 218

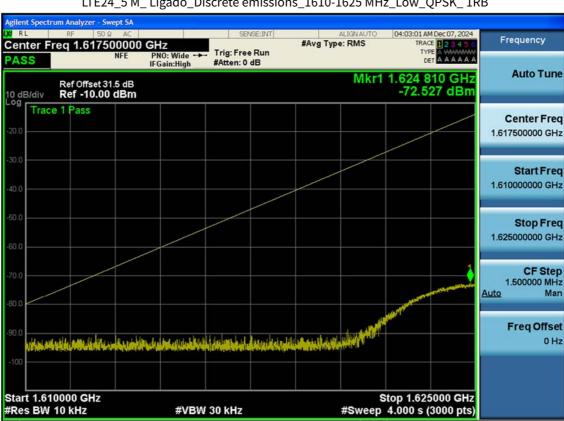




LTE24_10 M_ Ligado_Out of channel emissions_ 1656.5-1657.5 MHz_High_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 201 of 218

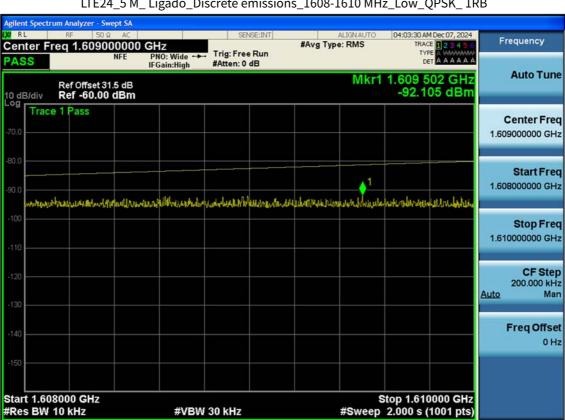




LTE24_5 M_ Ligado_Discrete emissions_1610-1625 MHz_Low_QPSK_ 1RB

F-TP22-03 (Rev. 06) Page 202 of 218



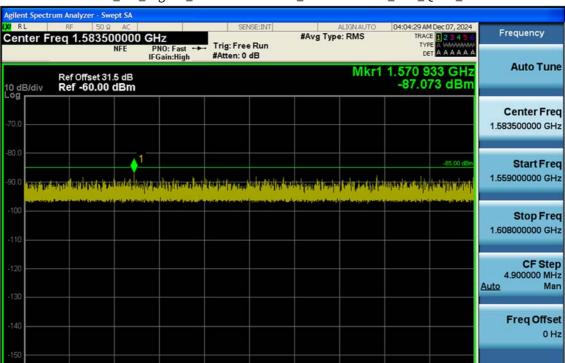


LTE24_5 M_ Ligado_Discrete emissions_1608-1610 MHz_Low_QPSK_ 1RB

F-TP22-03 (Rev. 06) Page 203 of 218



Start 1.55900 GHz #Res BW 10 kHz



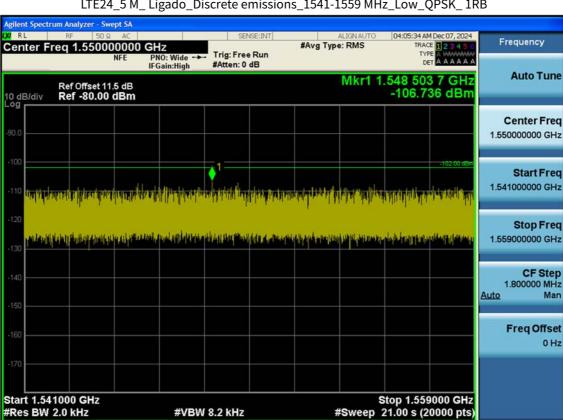
#VBW 30 kHz

Stop 1.60800 GHz #Sweep 10.00 s (10000 pts)

LTE24_5 M_ Ligado_Discrete emissions_1559-1608 MHz_Low_QPSK_ 1RB

F-TP22-03 (Rev. 06) Page 204 of 218





LTE24_5 M_ Ligado_Discrete emissions_1541-1559 MHz_Low_QPSK_ 1RB

F-TP22-03 (Rev. 06) Page 205 of 218

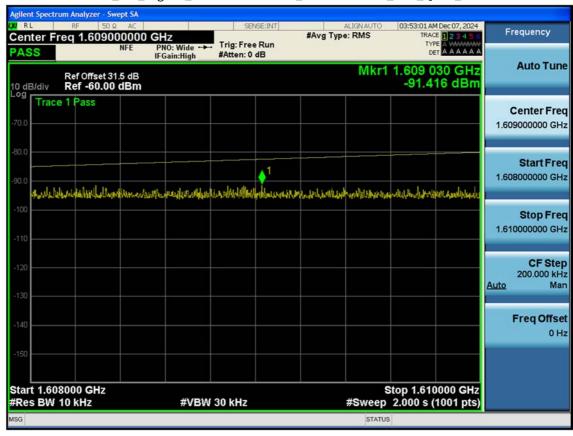




LTE24_5 M_ Ligado_Discrete emissions_1610-1625 MHz_Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 206 of 218

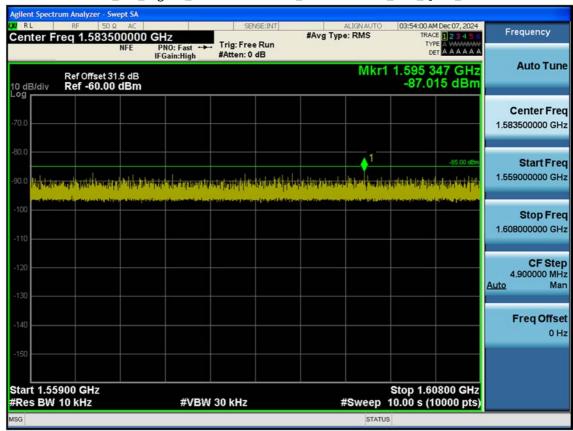




LTE24_5 M_ Ligado_Discrete emissions_1608-1610 MHz_Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 207 of 218

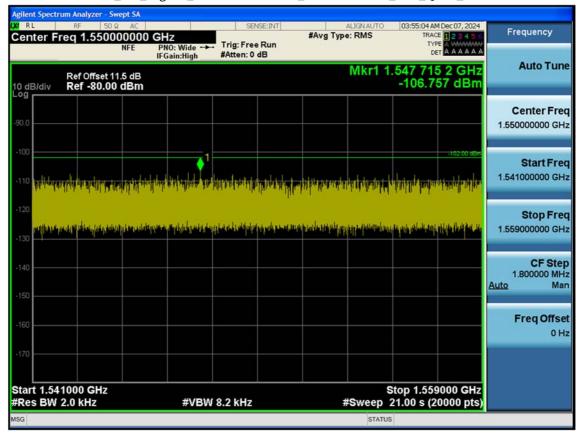




LTE24_5 M_ Ligado_Discrete emissions_1559-1608 MHz_Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 208 of 218

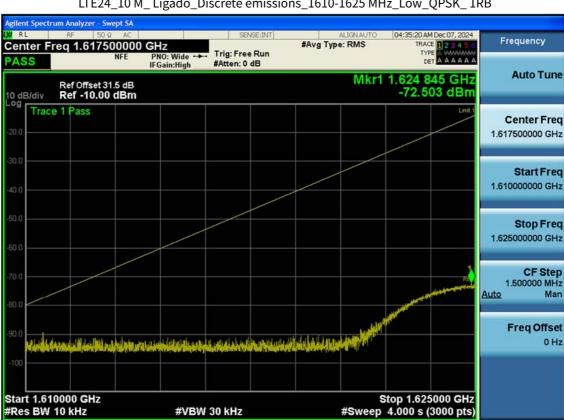




LTE24_5 M_ Ligado_Discrete emissions_1541-1559 MHz_Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 209 of 218

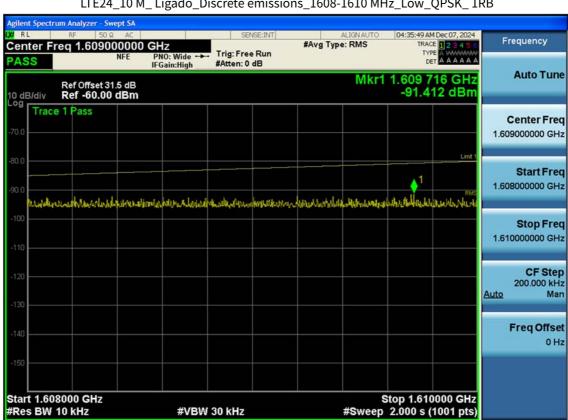




LTE24_10 M_ Ligado_Discrete emissions_1610-1625 MHz_Low_QPSK_ 1RB

F-TP22-03 (Rev. 06) Page 210 of 218

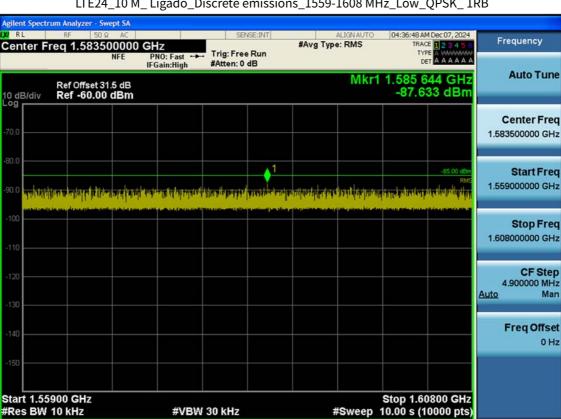




LTE24_10 M_ Ligado_Discrete emissions_1608-1610 MHz_Low_QPSK_ 1RB

F-TP22-03 (Rev. 06) Page 211 of 218

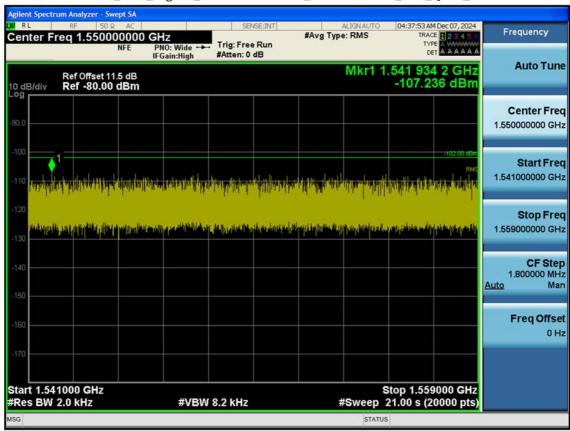




LTE24_10 M_ Ligado_Discrete emissions_1559-1608 MHz_Low_QPSK_ 1RB

F-TP22-03 (Rev. 06) Page 212 of 218

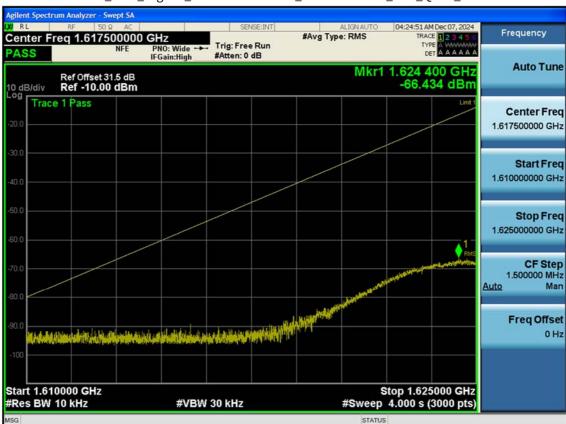




LTE24_10 M_ Ligado_Discrete emissions_1541-1559 MHz_Low_QPSK_ 1RB

F-TP22-03 (Rev. 06) Page 213 of 218

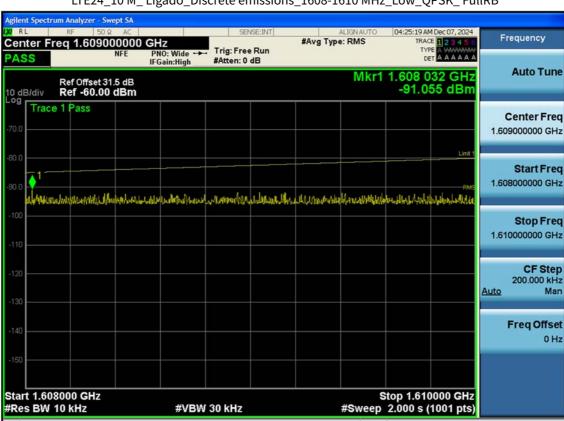




LTE24_10 M_ Ligado_Discrete emissions_1610-1625 MHz_Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 214 of 218

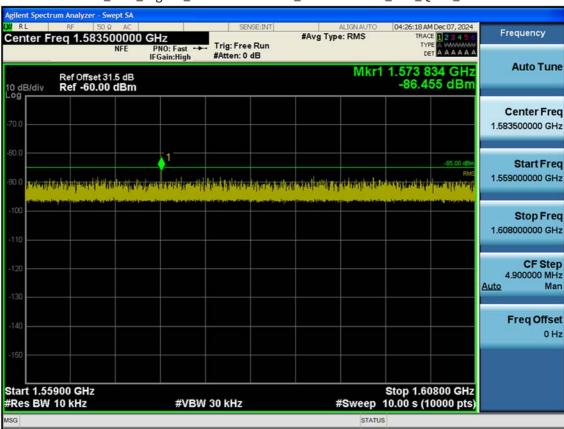




LTE24_10 M_ Ligado_Discrete emissions_1608-1610 MHz_Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 215 of 218

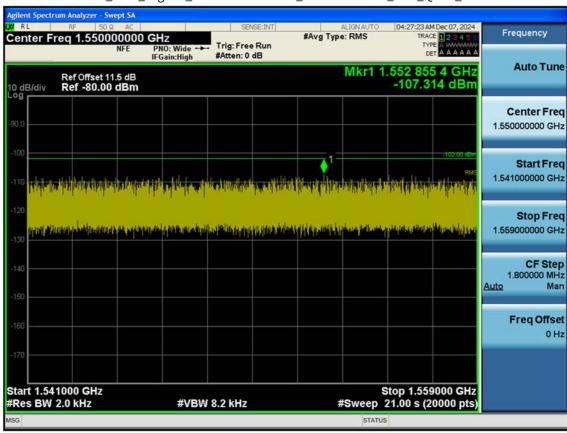




LTE24_10 M_ Ligado_Discrete emissions_1559-1608 MHz_Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 216 of 218





LTE24_10 M_ Ligado_Discrete emissions_1541-1559 MHz_Low_QPSK_ FullRB

F-TP22-03 (Rev. 06) Page 217 of 218



12. ANNEX A_TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-2409-FC014-P

F-TP22-03 (Rev. 06) Page 218 of 218