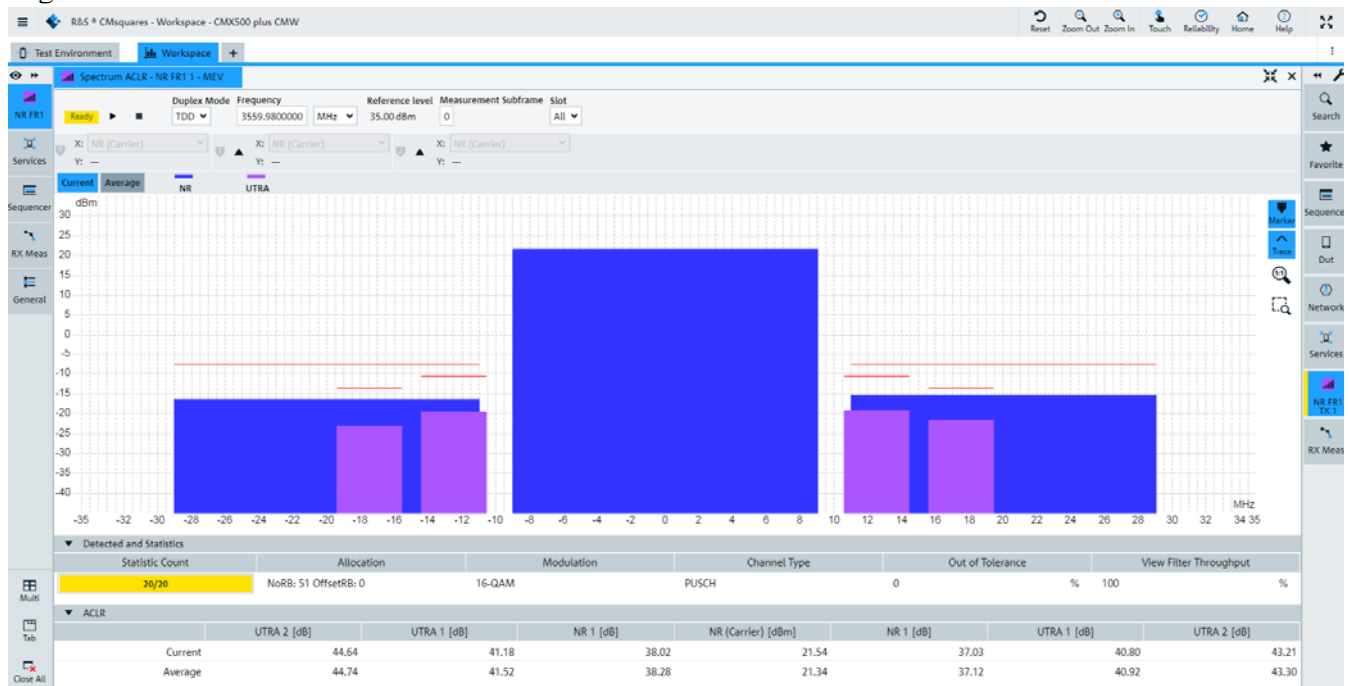




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High



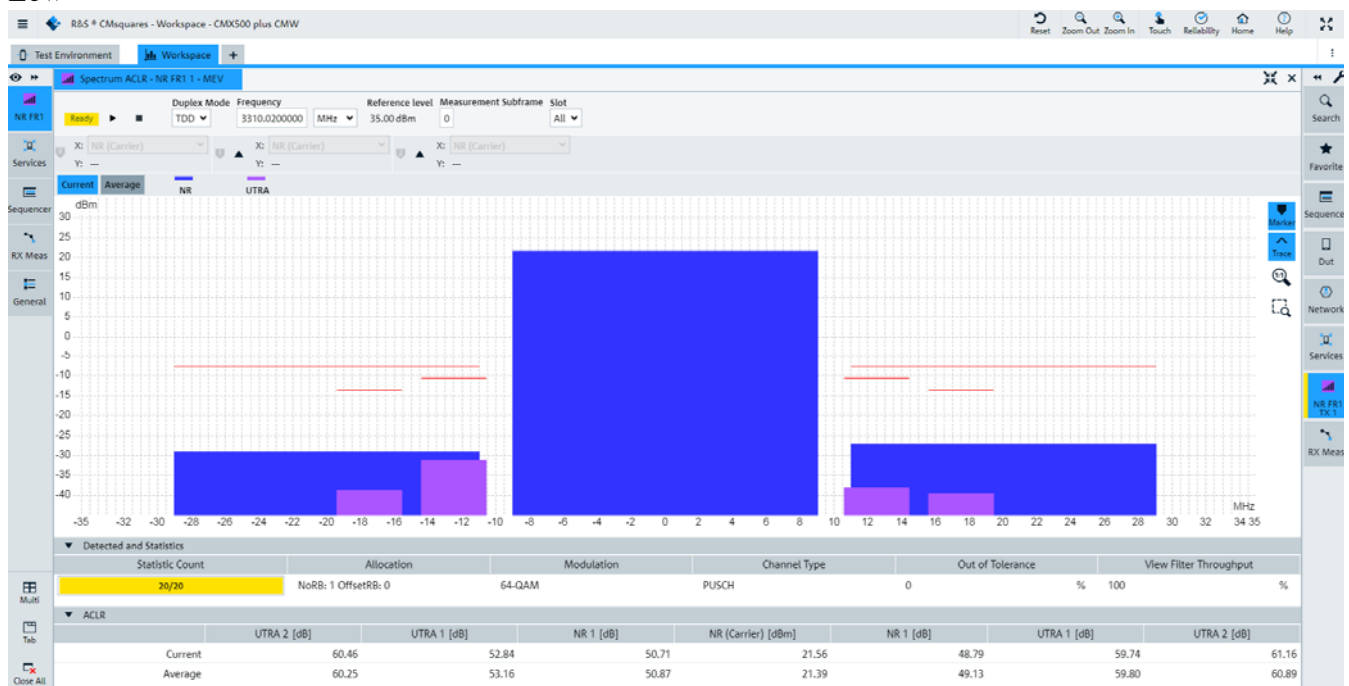
(ID 31) PUSCH Modulation

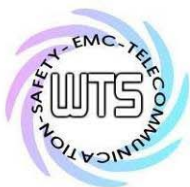
{CP-OFDM 64 QAM}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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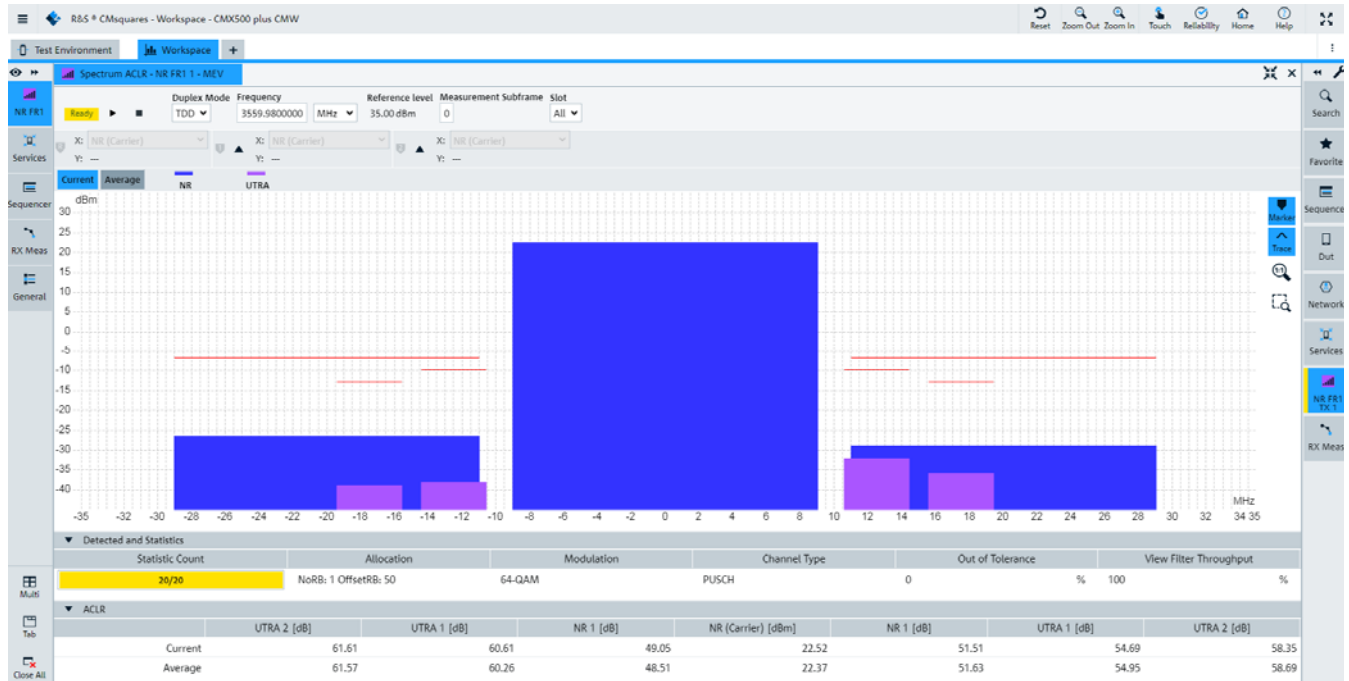
(ID 32) PUSCH Modulation

Common uplink configuration NR

High

{CP-OFDM 64 QAM}

{Edge_1RB_Right}



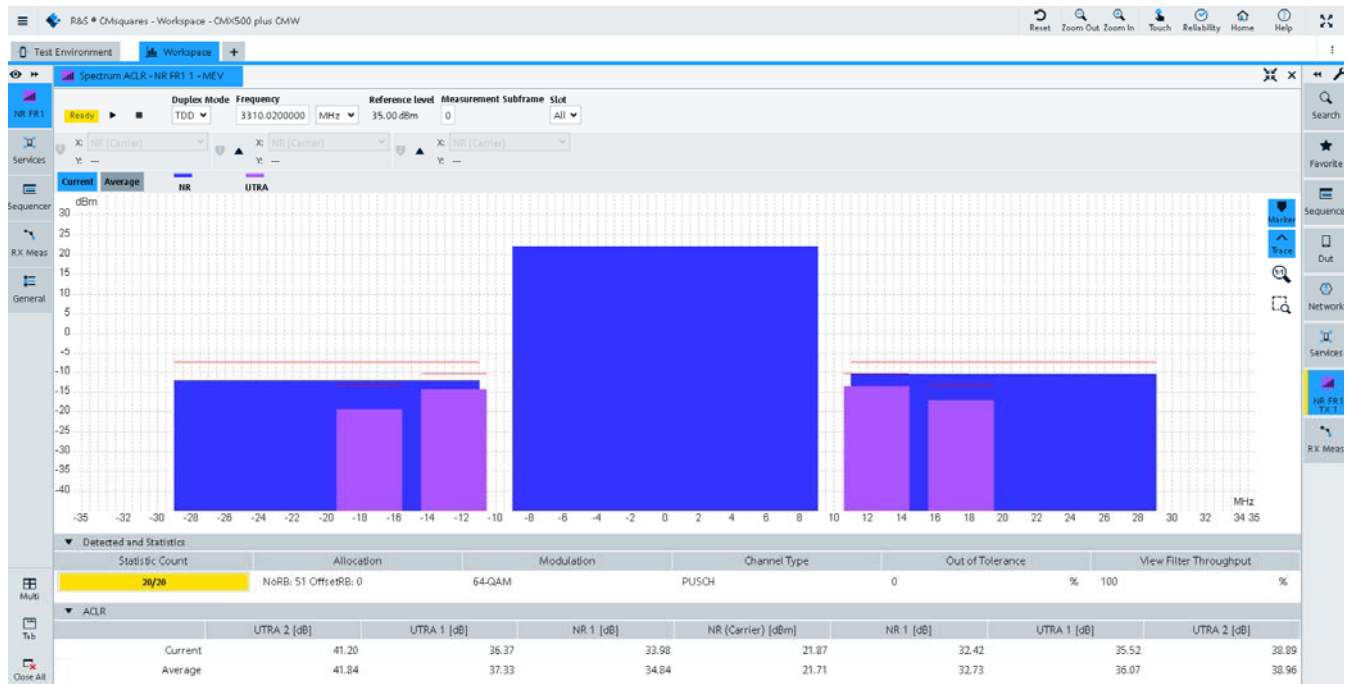
(ID 33) PUSCH Modulation

Common uplink configuration NR

Low

{CP-OFDM 64 QAM}

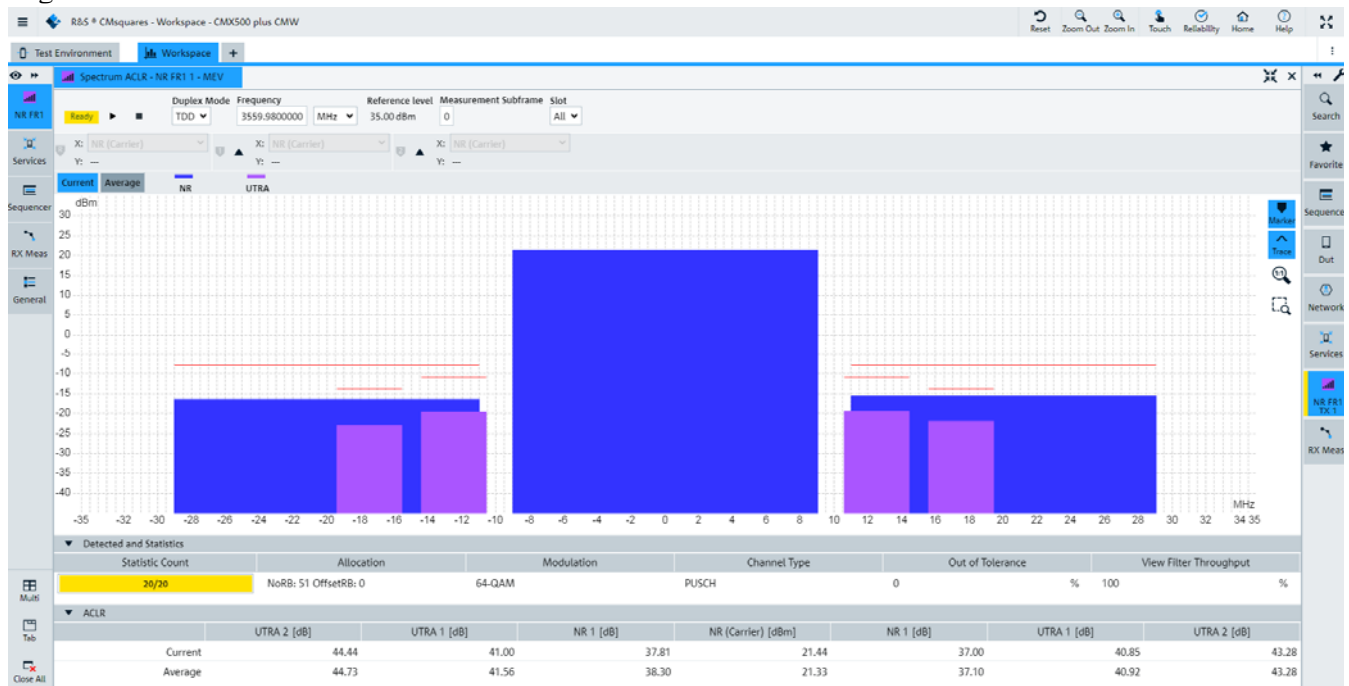
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High



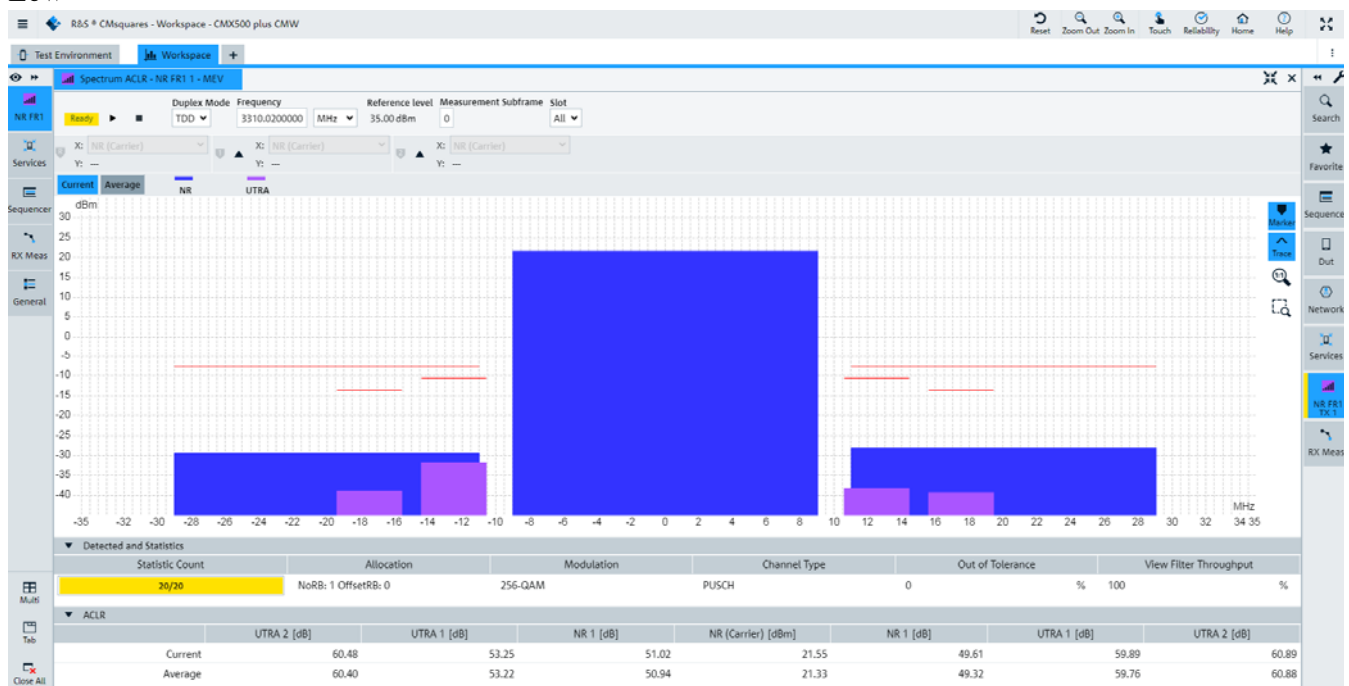
(ID 34) PUSCH Modulation

{CP-OFDM 256 QAM}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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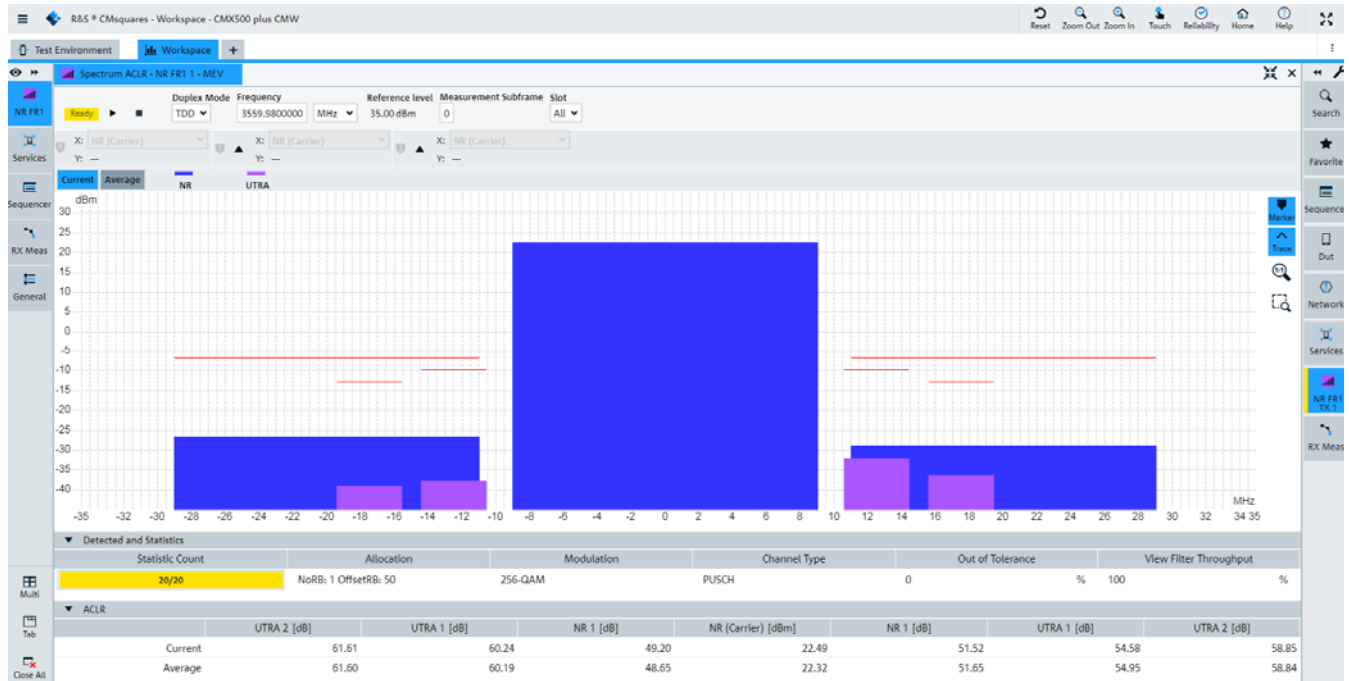
(ID 35) PUSCH Modulation

Common uplink configuration NR

High

{CP-OFDM 256 QAM}

{Edge_1RB_Right}



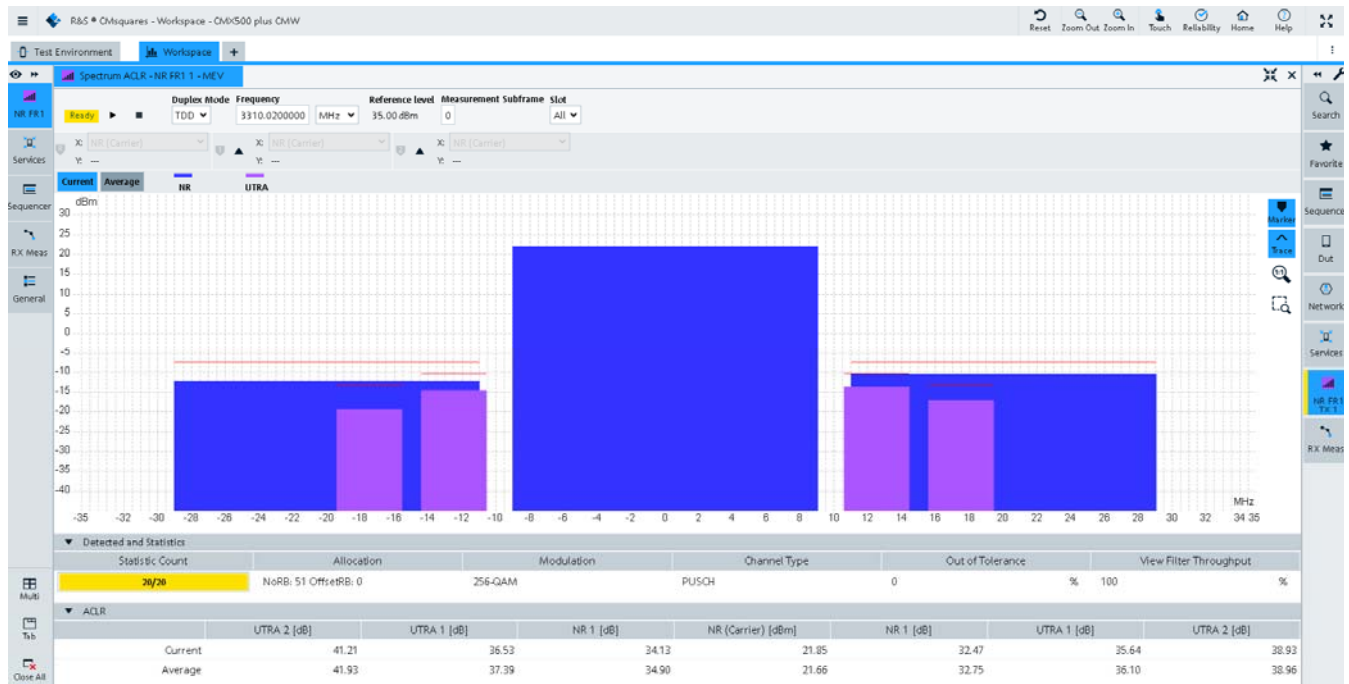
(ID 36) PUSCH Modulation

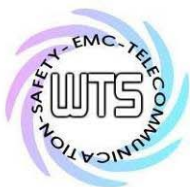
Common uplink configuration NR

Low

{CP-OFDM 256 QAM}

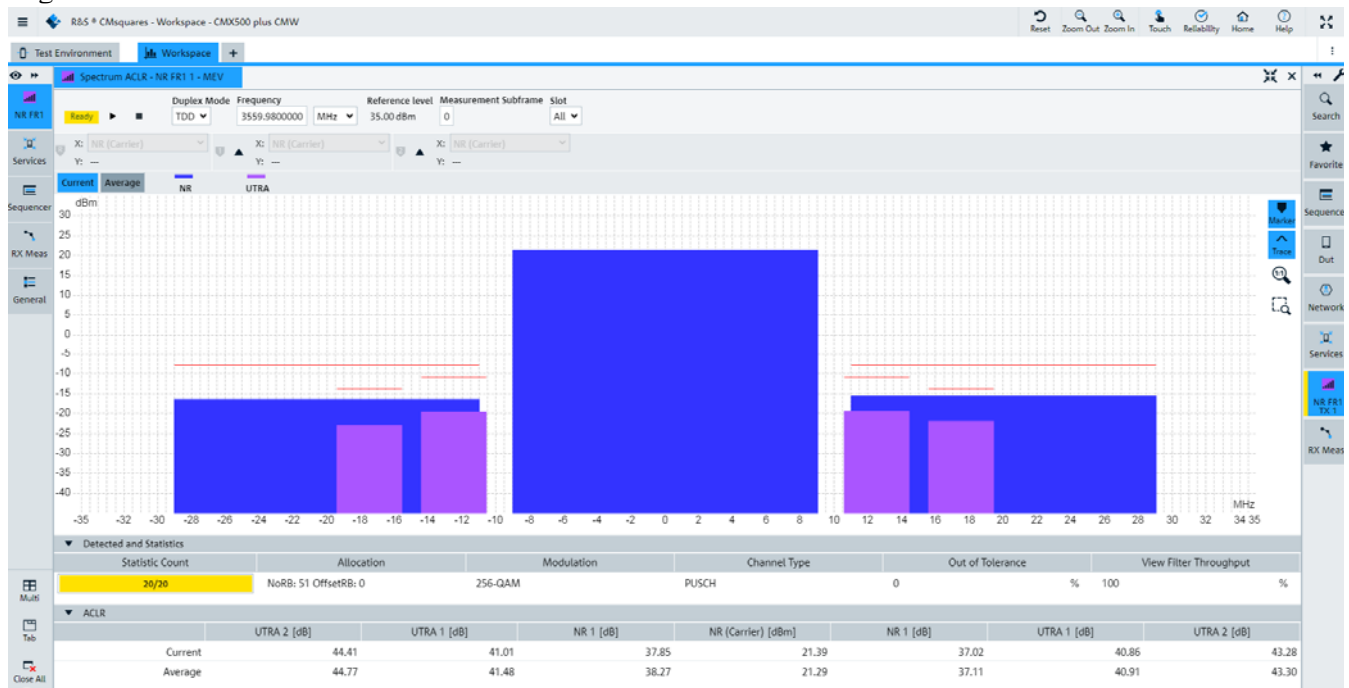
{Outer_Full}





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High



n78 Channel Bandwidth : 100MHz

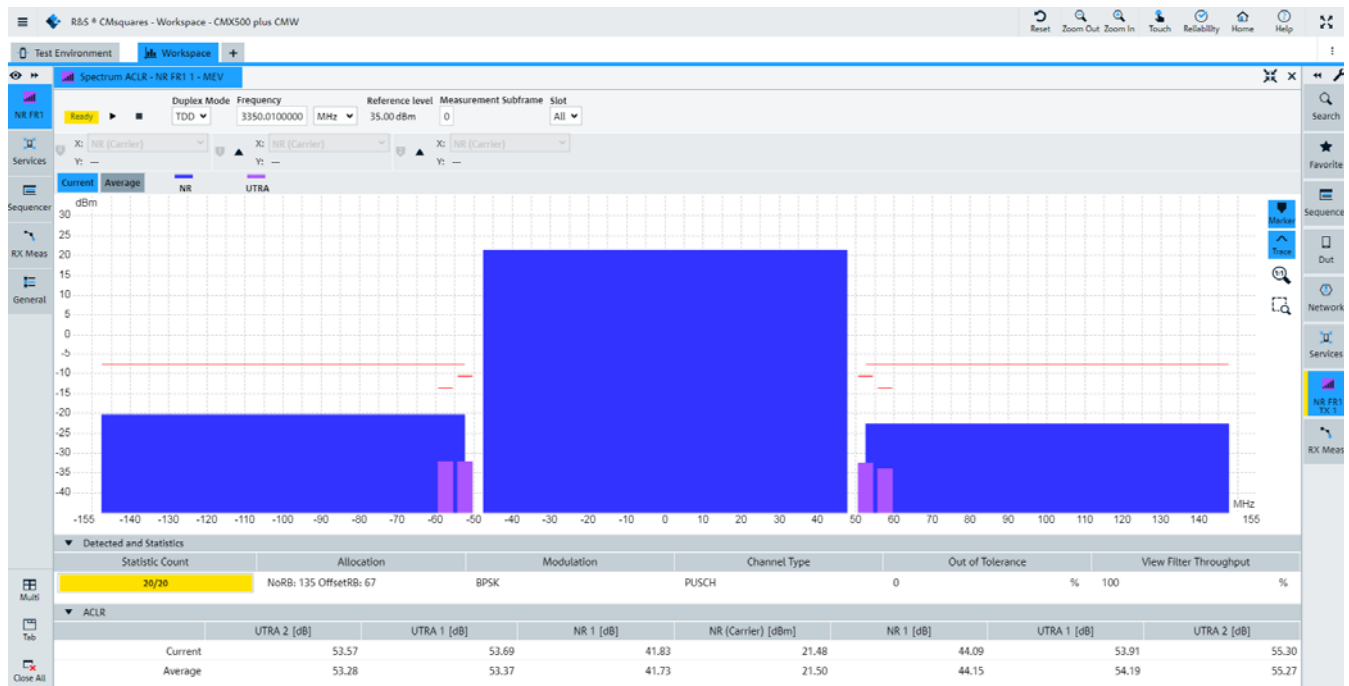
(ID 1) PUSCH Modulation

{DFT-s-OFDM PI/2 BPSK}

Common uplink configuration NR

{Inner_Full}

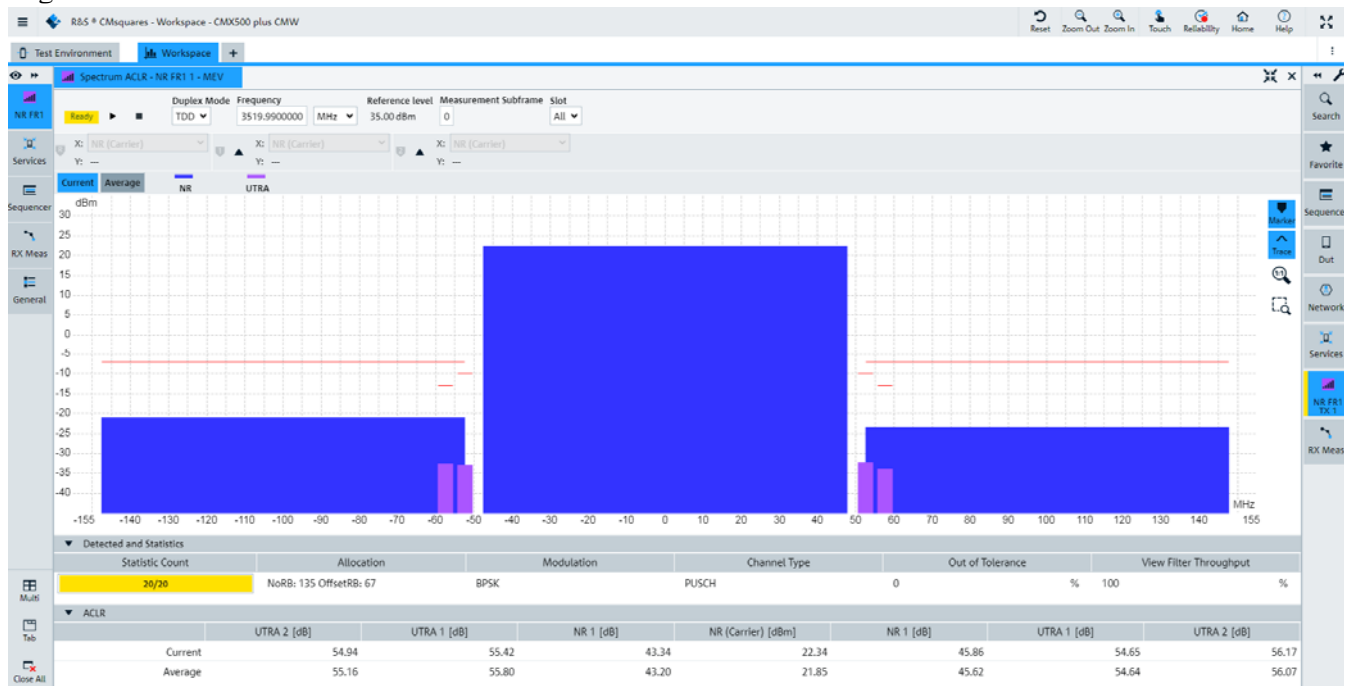
Low





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High



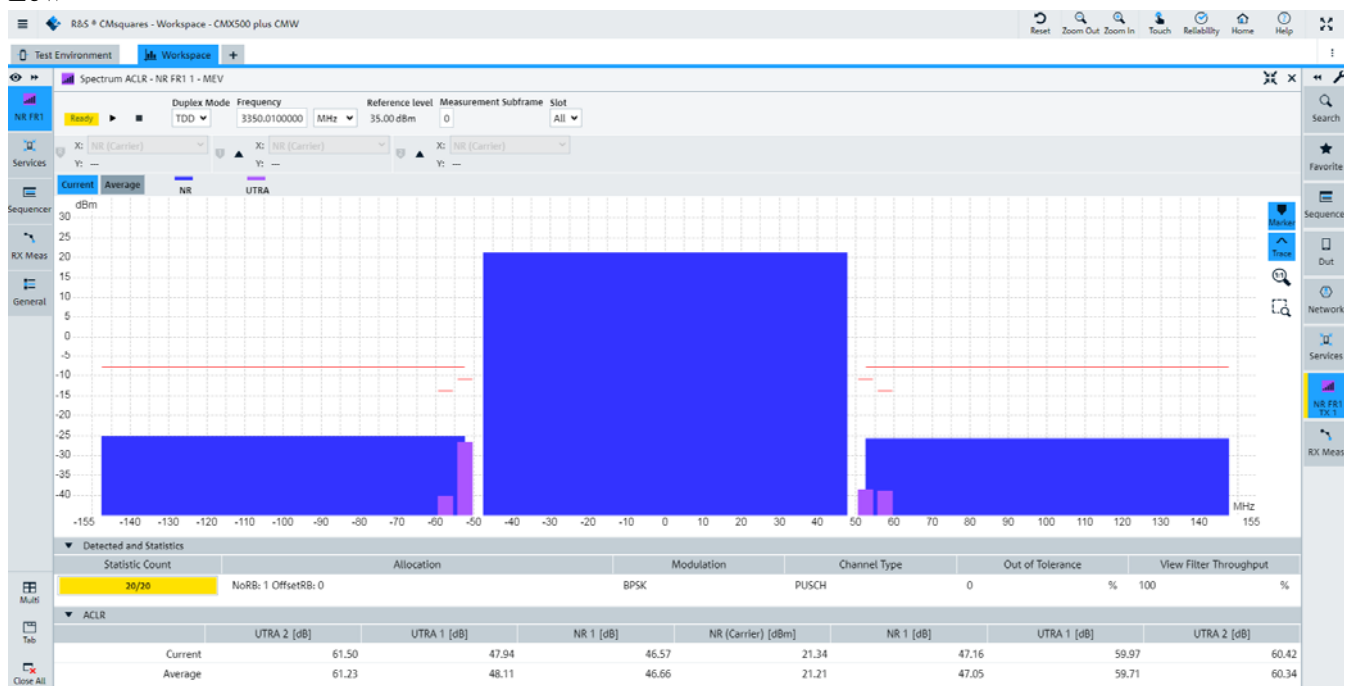
(ID 2) PUSCH Modulation

{DFT-s-OFDM PI/2 BPSK}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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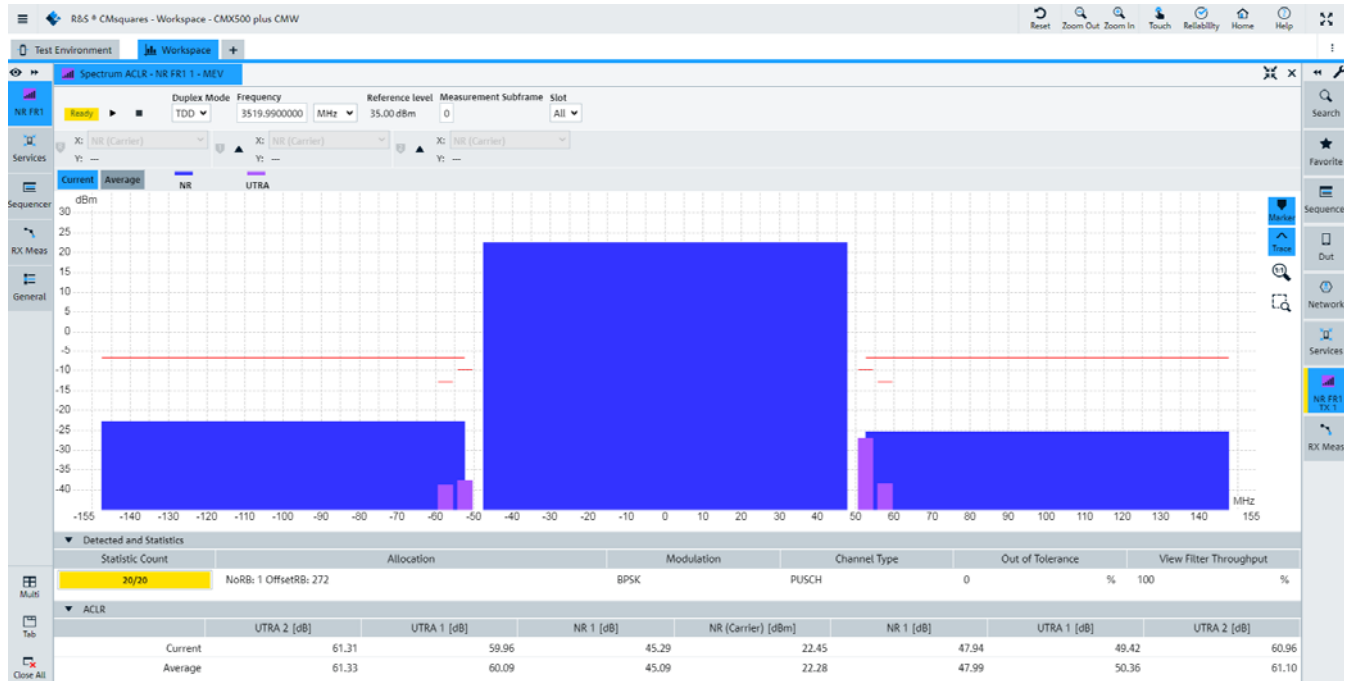
(ID 3) PUSCH Modulation

Common uplink configuration NR

High

{DFT-s-OFDM PI/2 BPSK}

{Edge_1RB_Right}



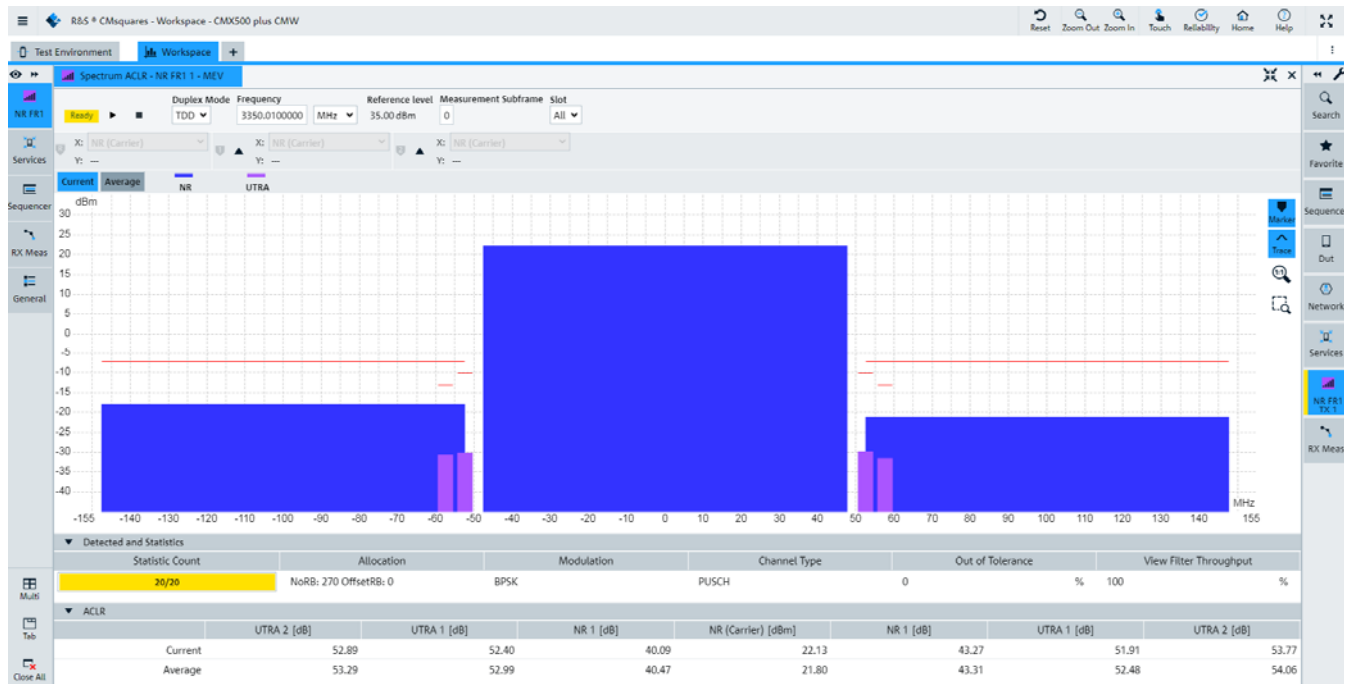
(ID 4) PUSCH Modulation

Common uplink configuration NR

Low

{DFT-s-OFDM PI/2 BPSK}

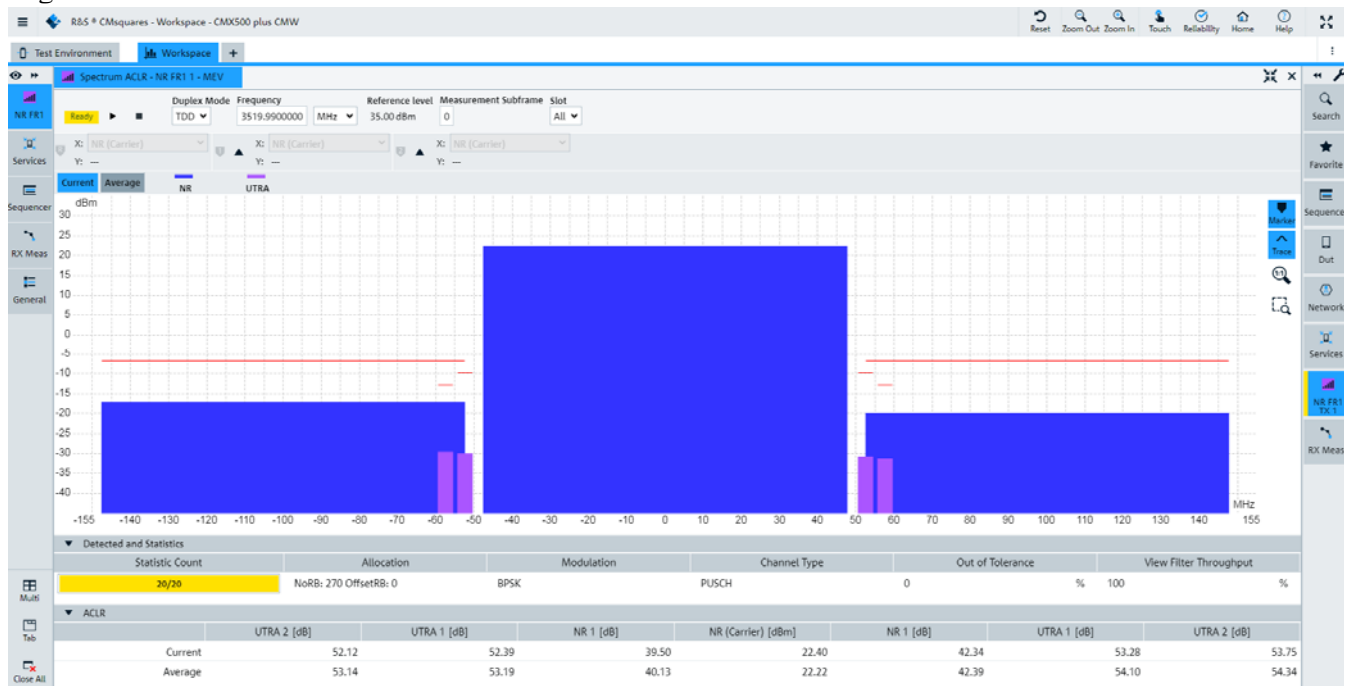
{Outer_Full}





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High



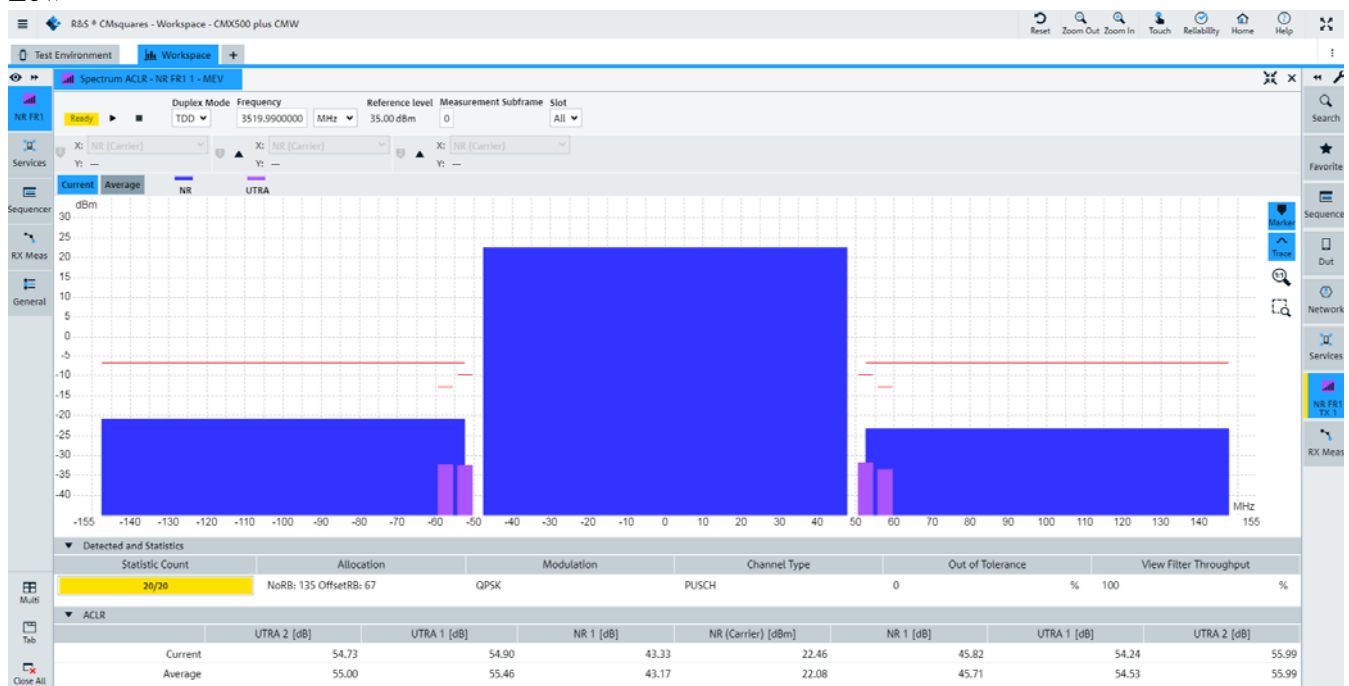
(ID 9) PUSCH Modulation

{DFT-s-OFDM QPSK}

Common uplink configuration NR

{Inner_Full}

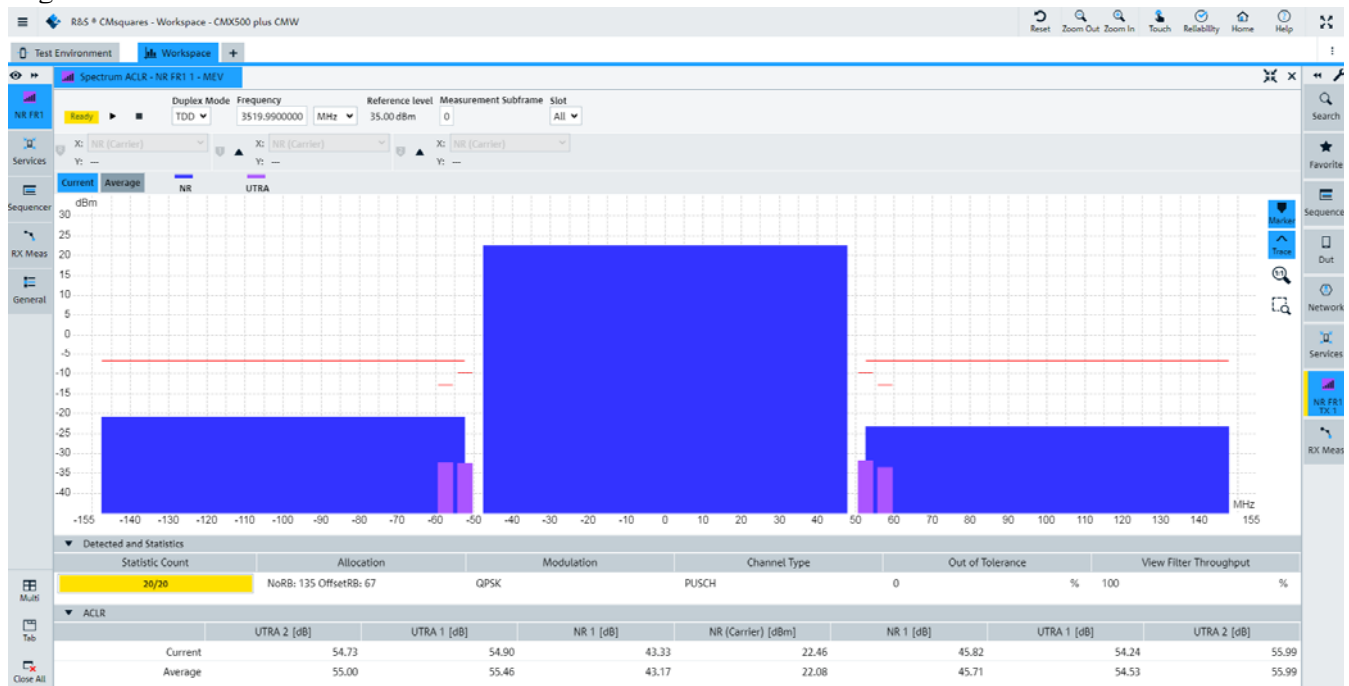
Low





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High



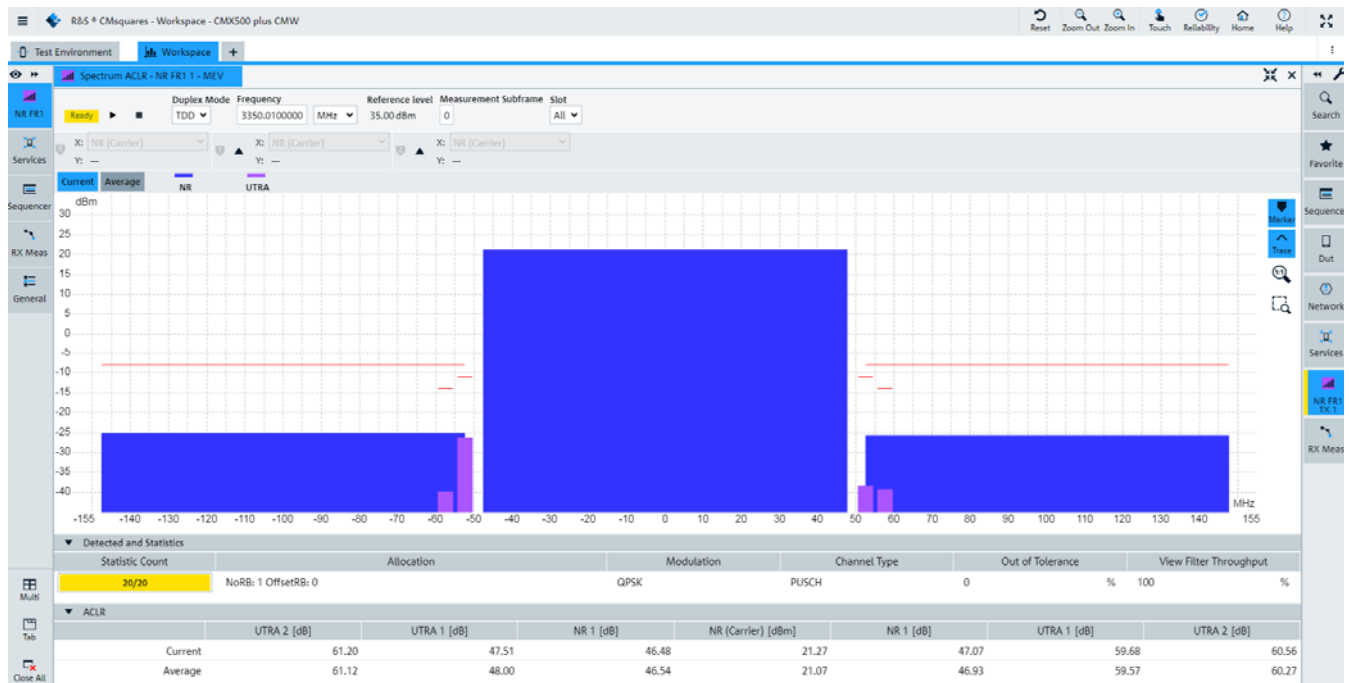
(ID 10) PUSCH Modulation

{DFT-s-OFDM QPSK}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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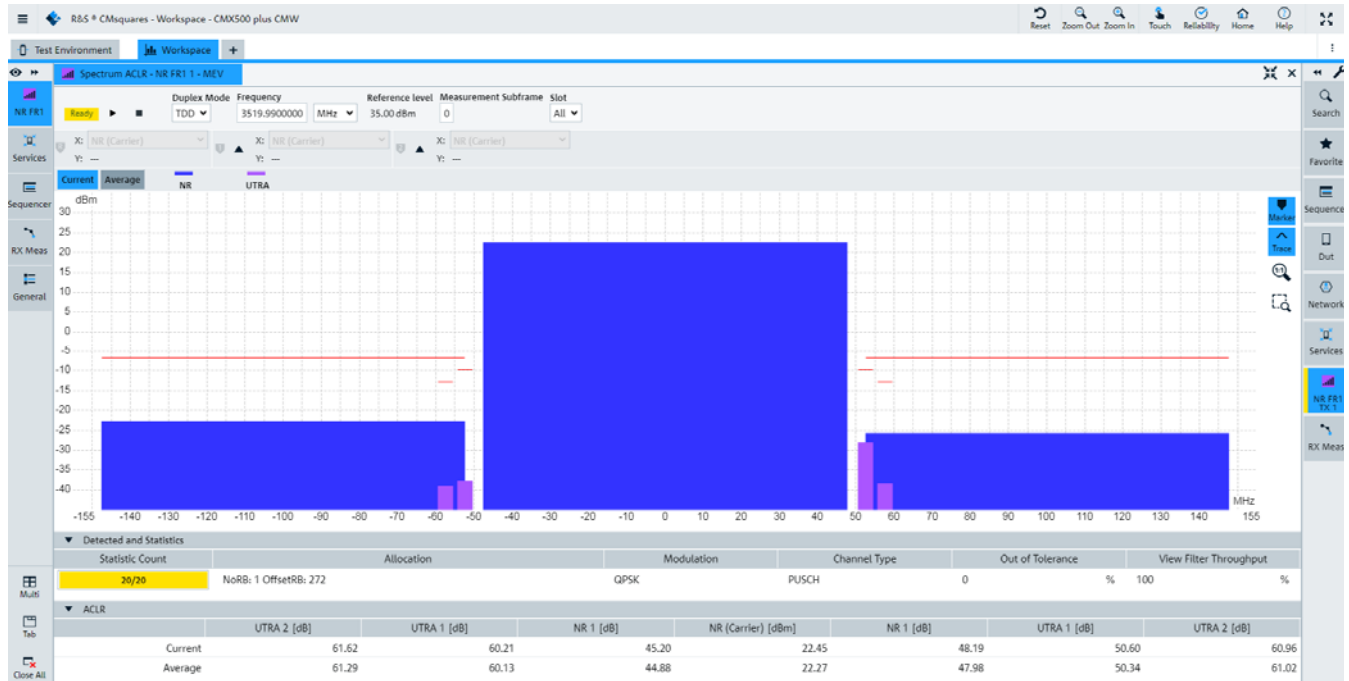
(ID 11) PUSCH Modulation

Common uplink configuration NR

High

{DFT-s-OFDM QPSK}

{Edge_1RB_Right}



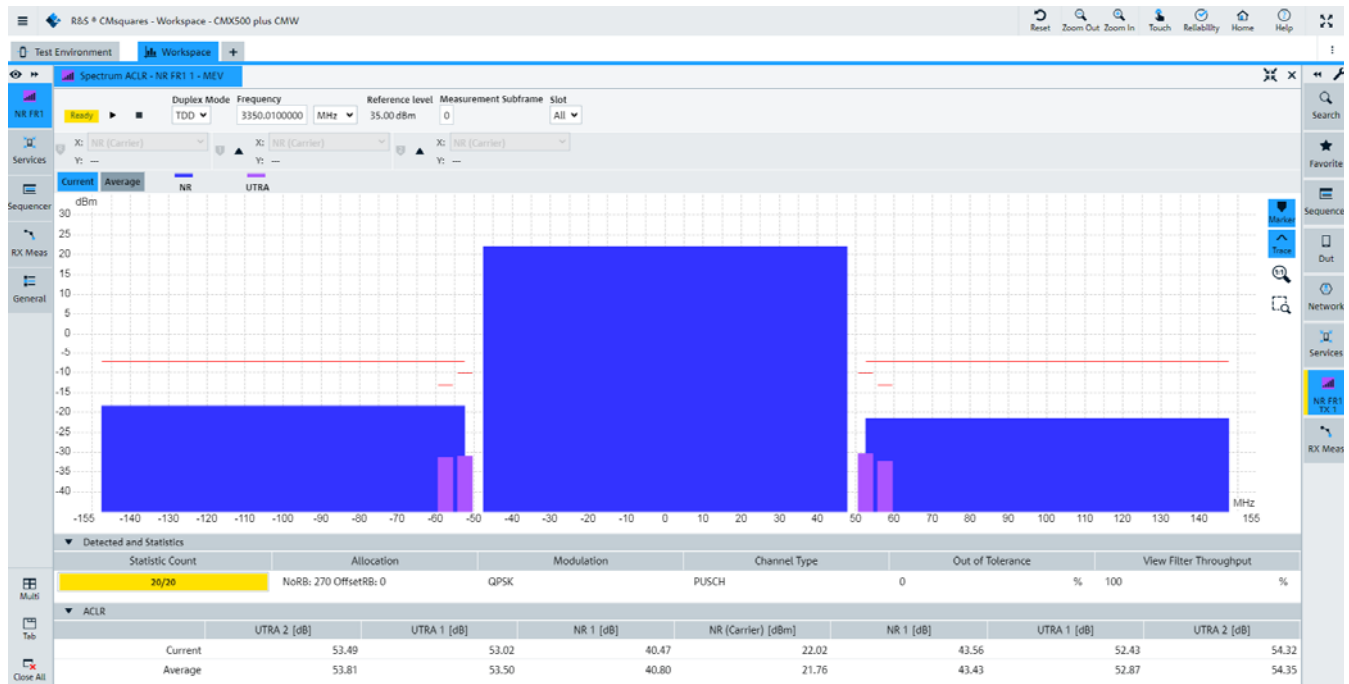
(ID 12) PUSCH Modulation

Common uplink configuration NR

Low

{DFT-s-OFDM QPSK}

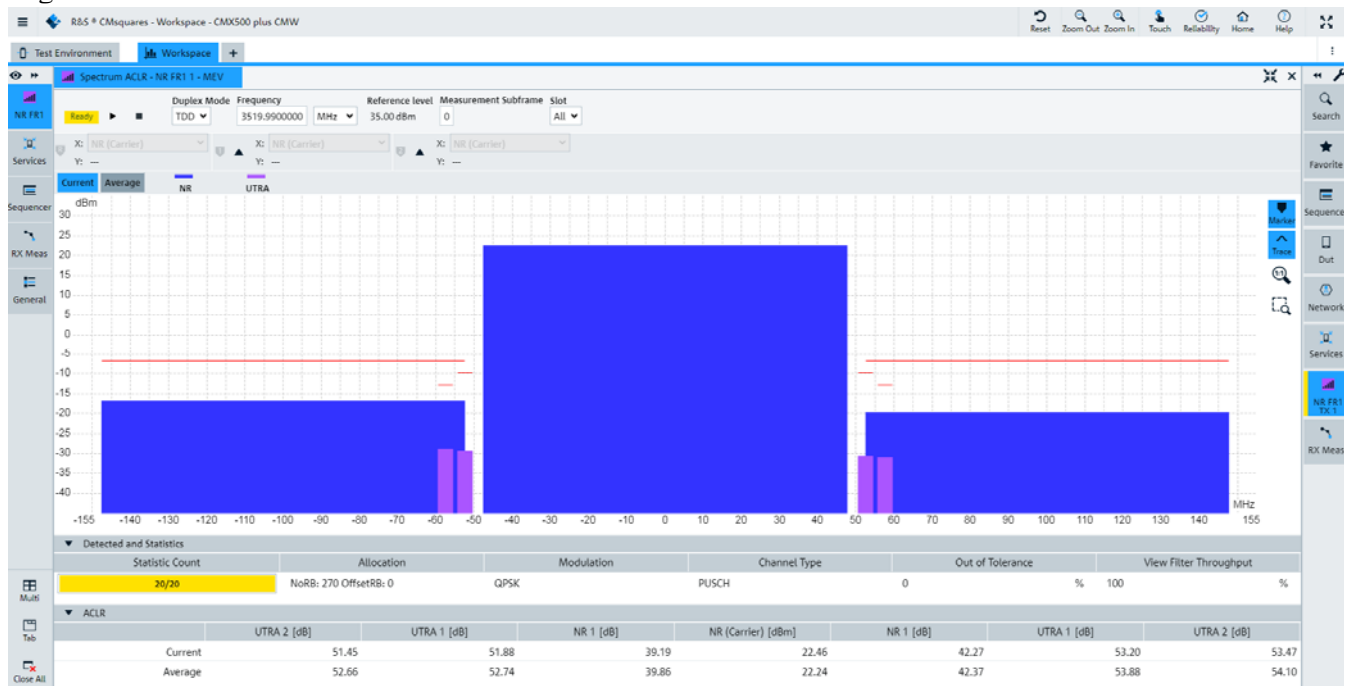
{Outer_Full}





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High



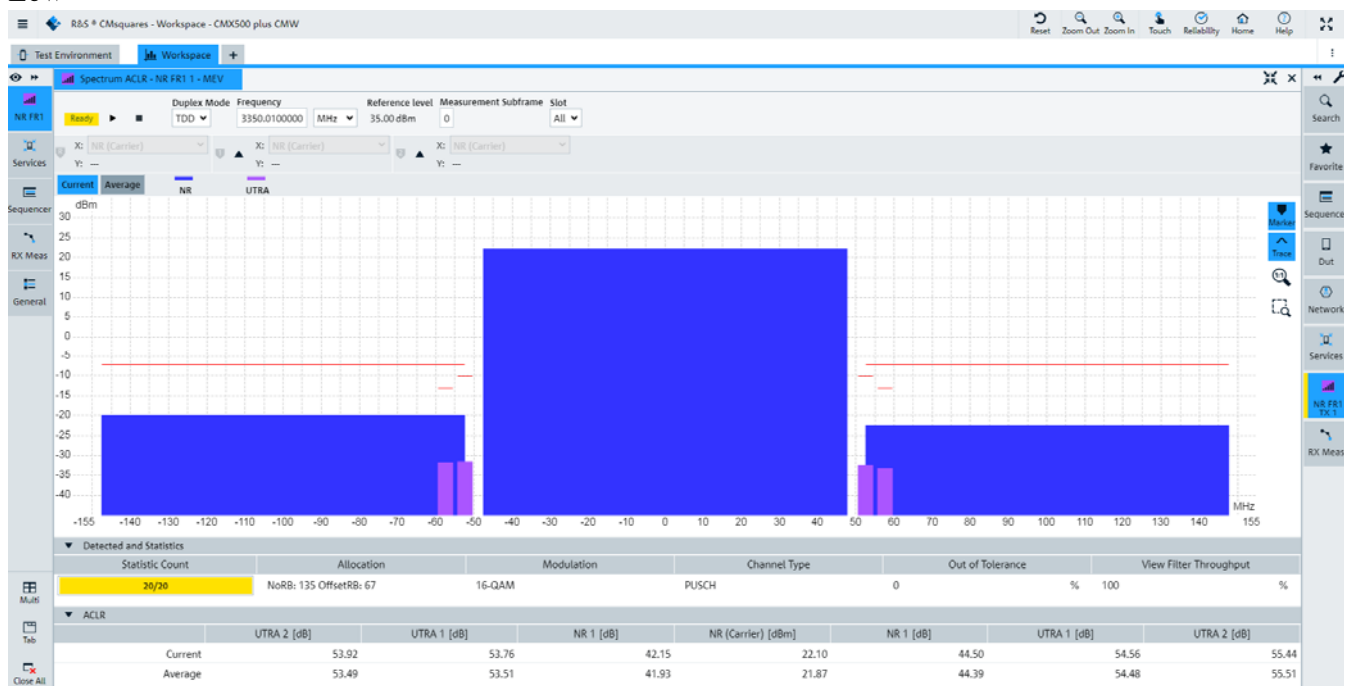
(ID 13) PUSCH Modulation

{DFT-s-OFDM 16 QAM}

Common uplink configuration NR

{Inner_Full}

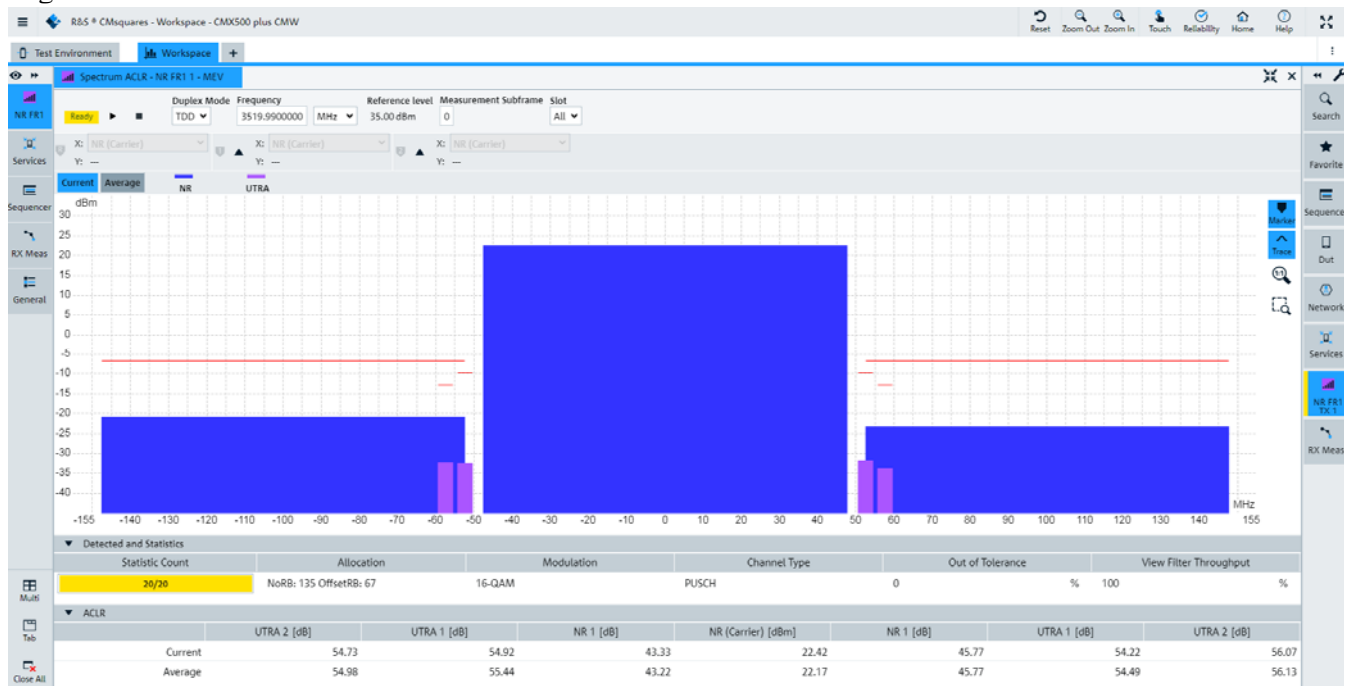
Low





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High



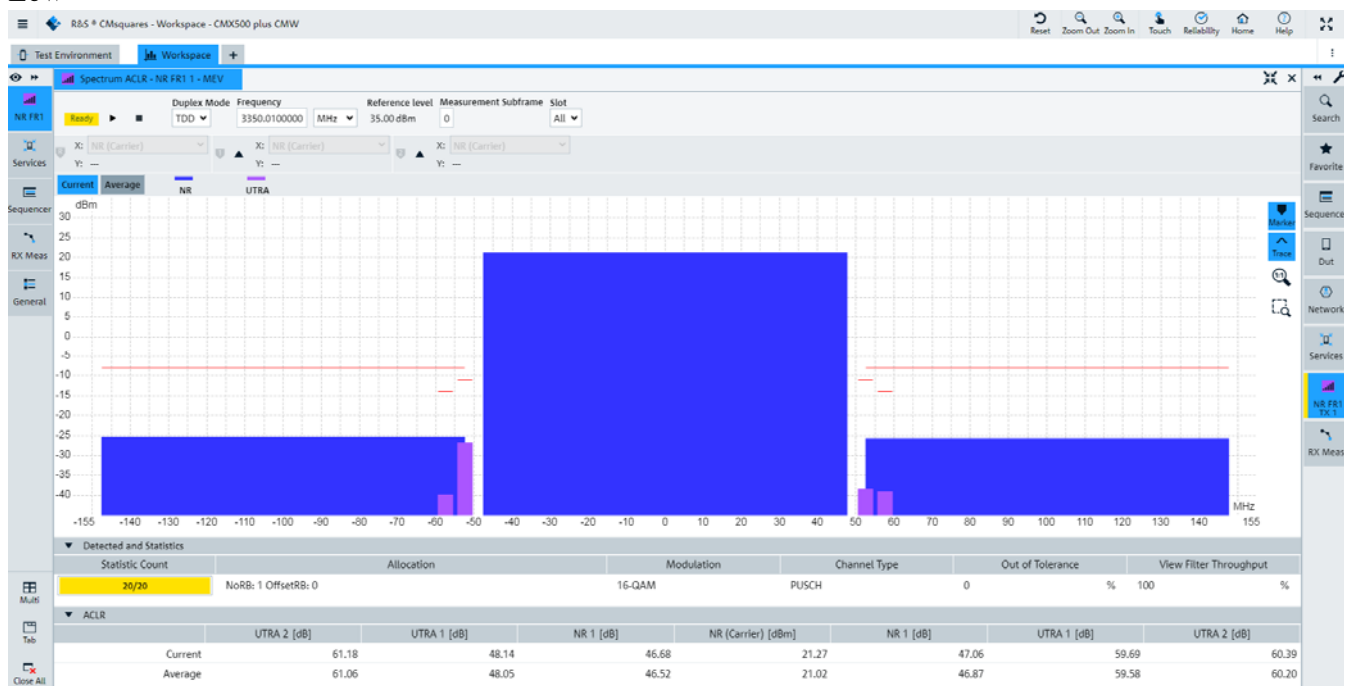
(ID 14) PUSCH Modulation

{DFT-s-OFDM 16 QAM}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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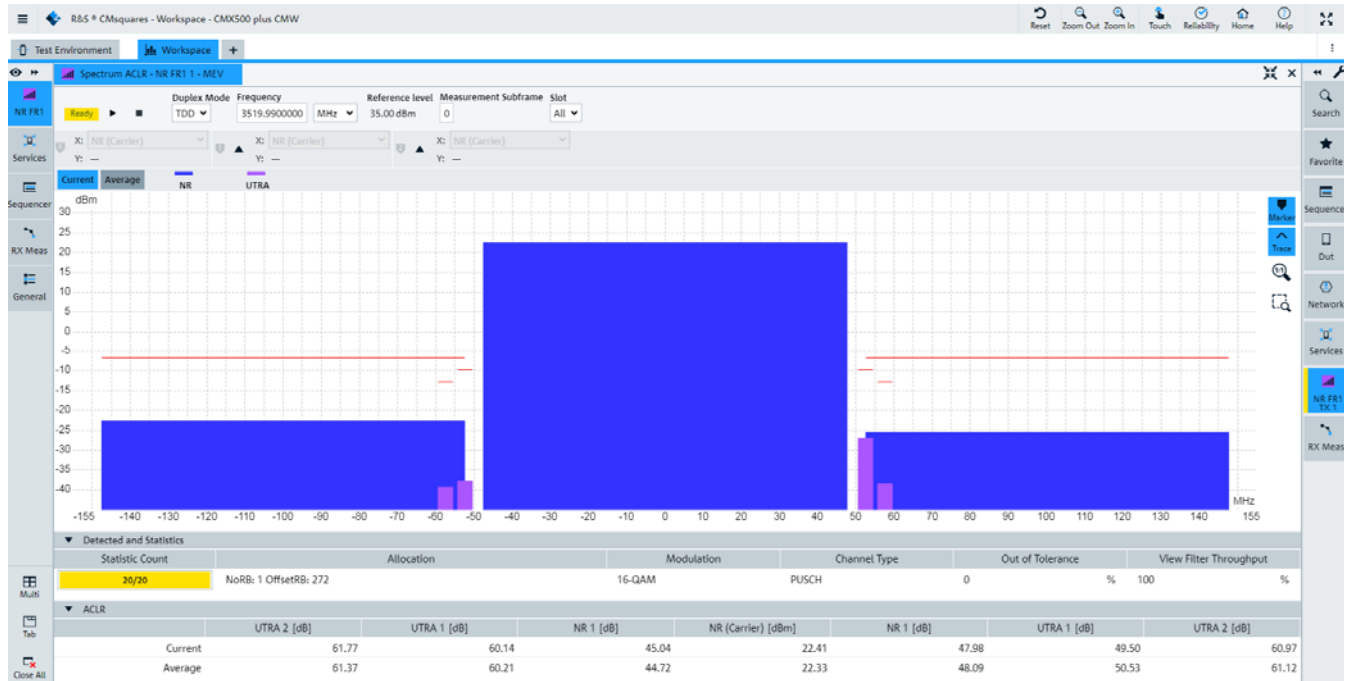
(ID 15) PUSCH Modulation

Common uplink configuration NR

High

{DFT-s-OFDM 16 QAM}

{Edge_1RB_Right}



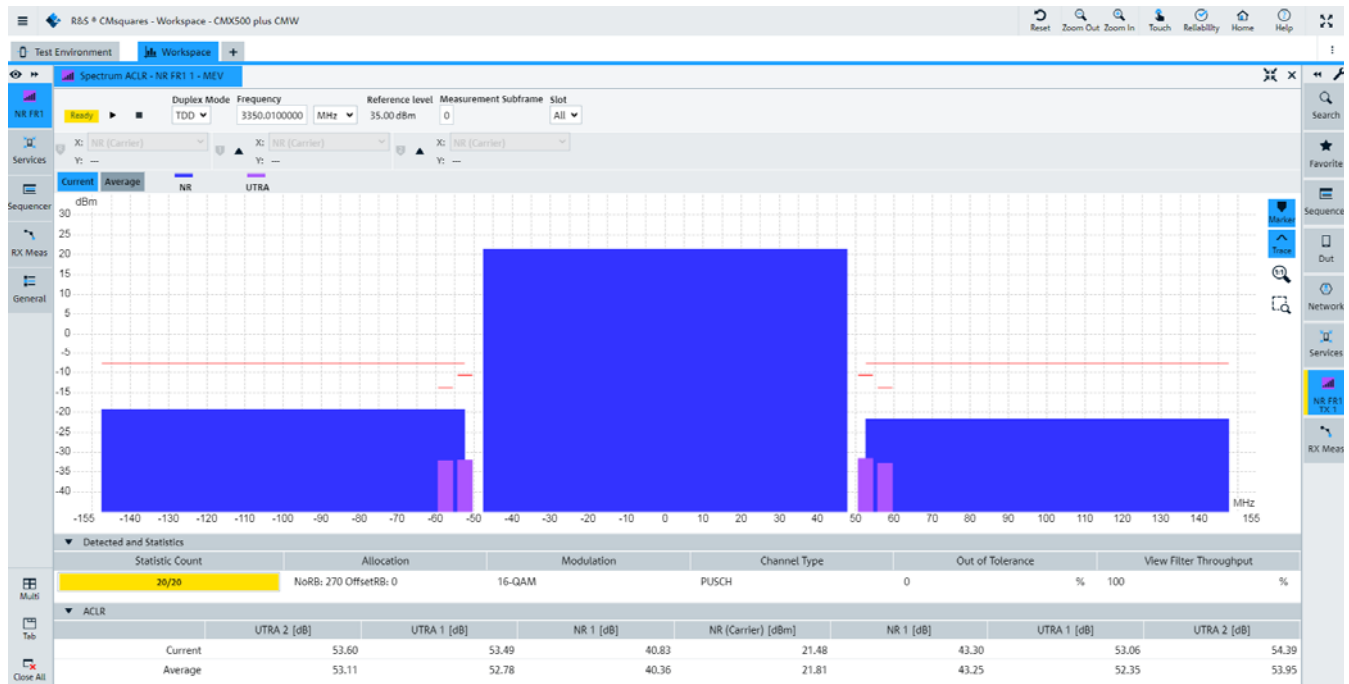
(ID 16) PUSCH Modulation

Common uplink configuration NR

Low

{DFT-s-OFDM 16 QAM}

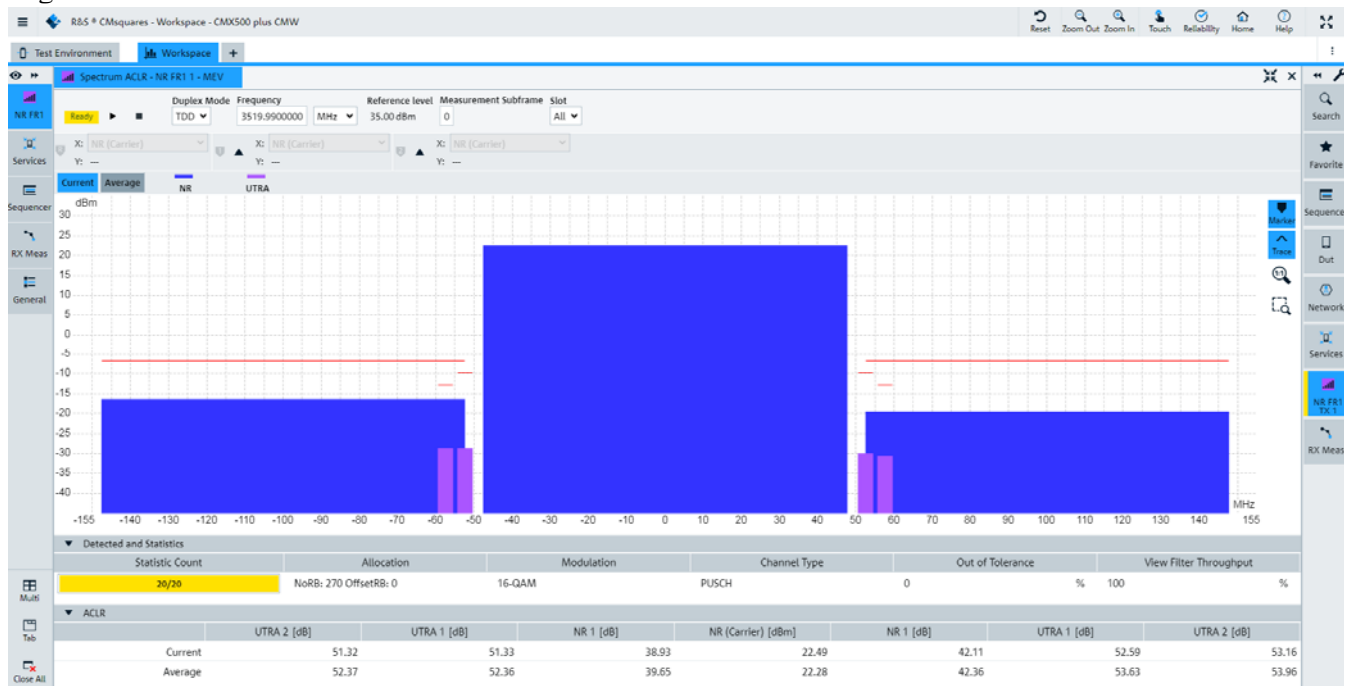
{Outer_Full}





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High



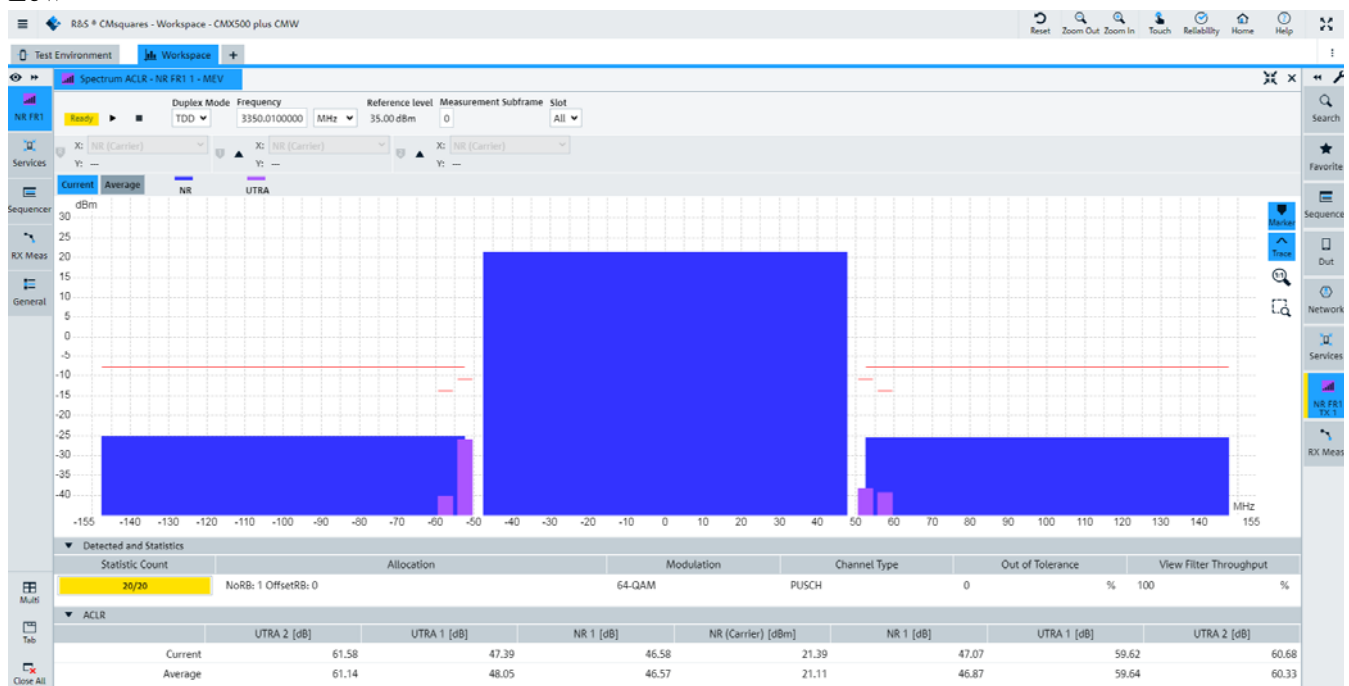
(ID 17) PUSCH Modulation

{DFT-s-OFDM 64 QAM}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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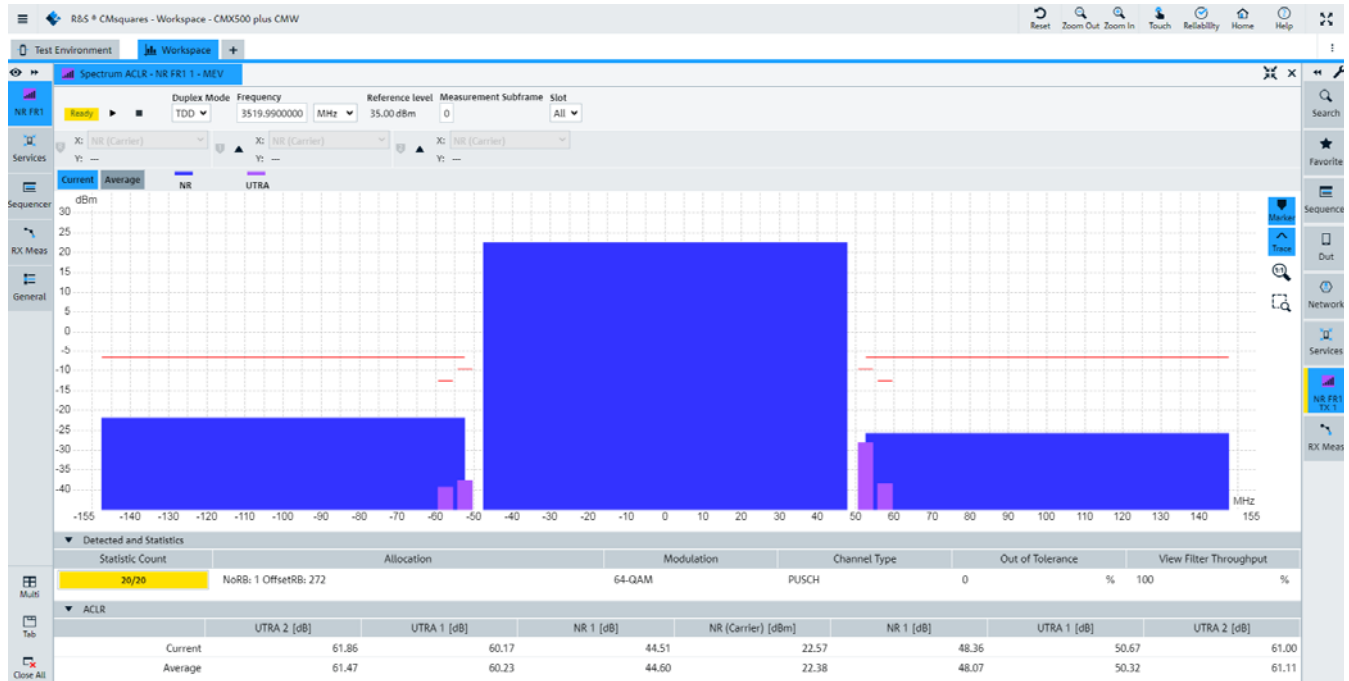
(ID 18) PUSCH Modulation

Common uplink configuration NR

High

{DFT-s-OFDM 64 QAM}

{Edge_1RB_Right}



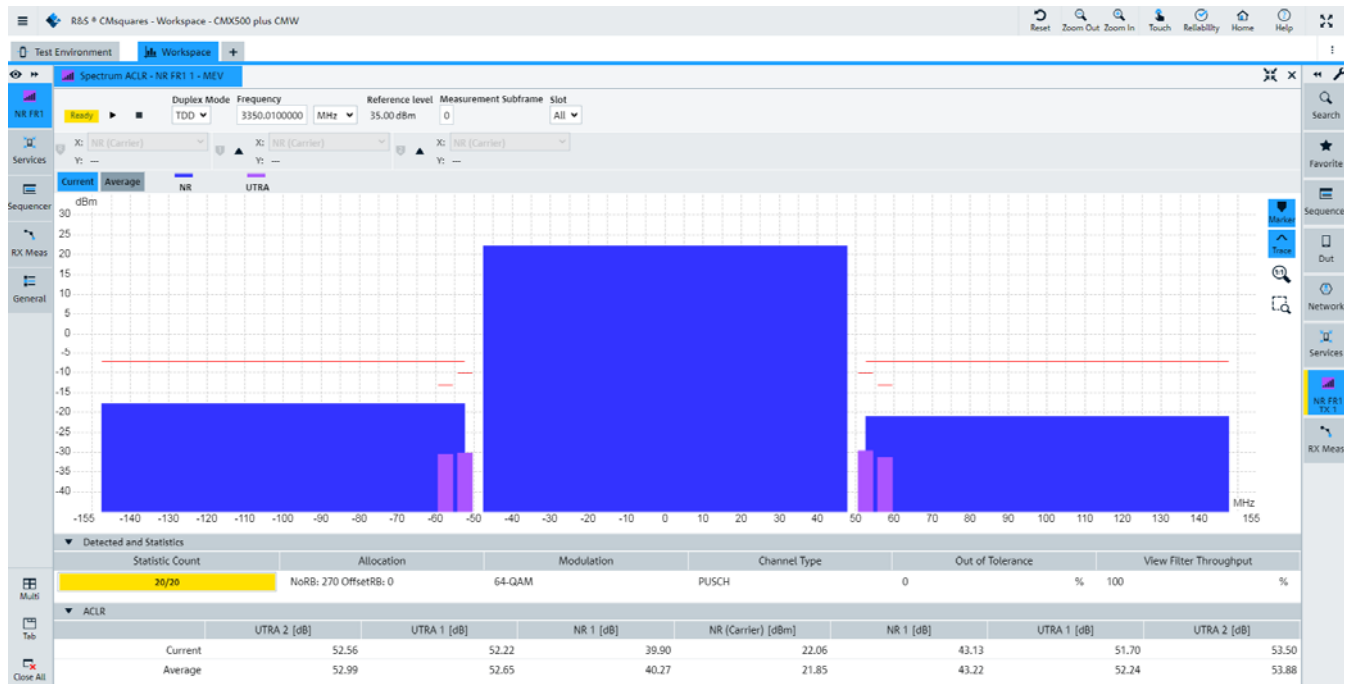
(ID 19) PUSCH Modulation

Common uplink configuration NR

Low

{DFT-s-OFDM 64 QAM}

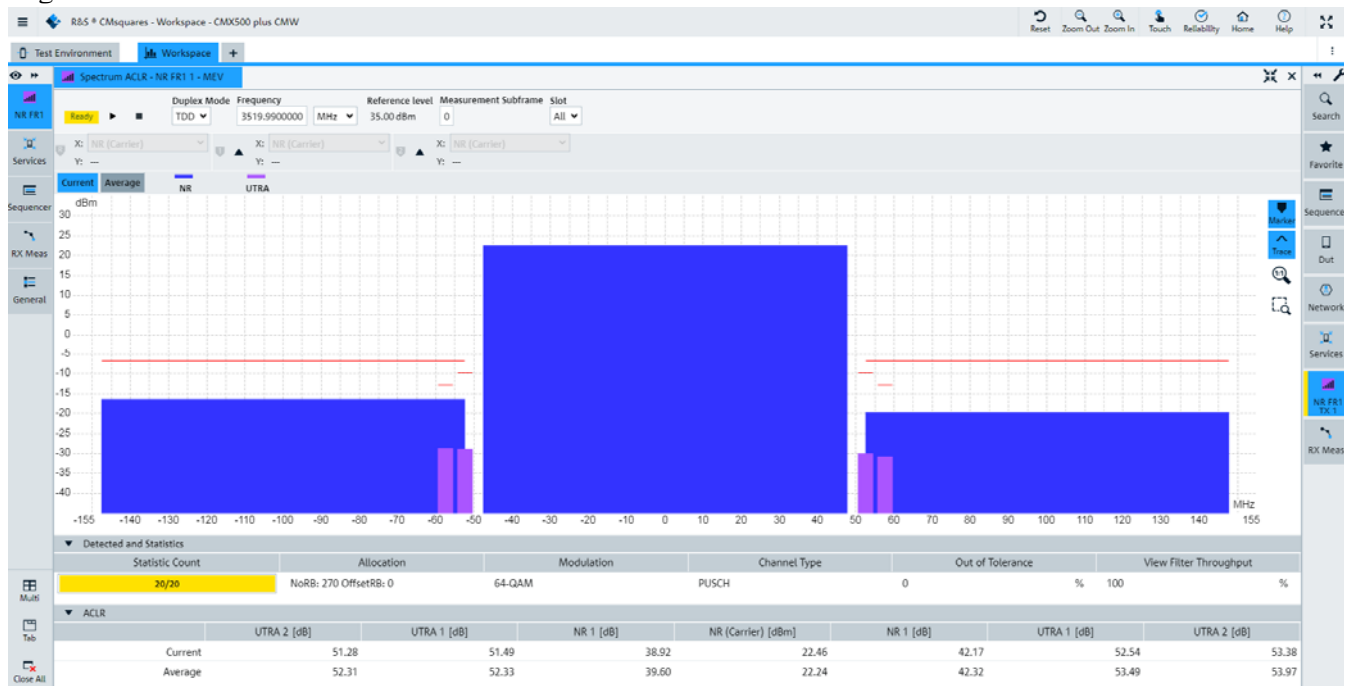
{Outer_Full}





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High



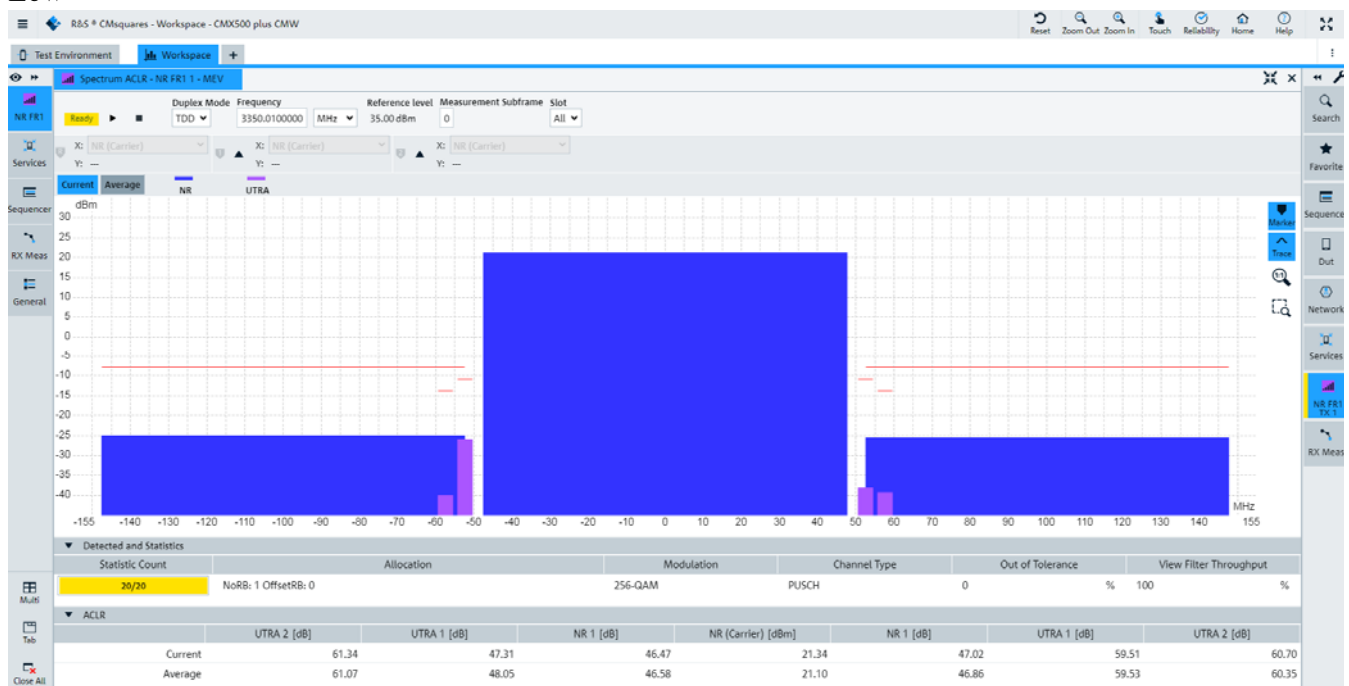
(ID 20) PUSCH Modulation

{DFT-s-OFDM 256 QAM}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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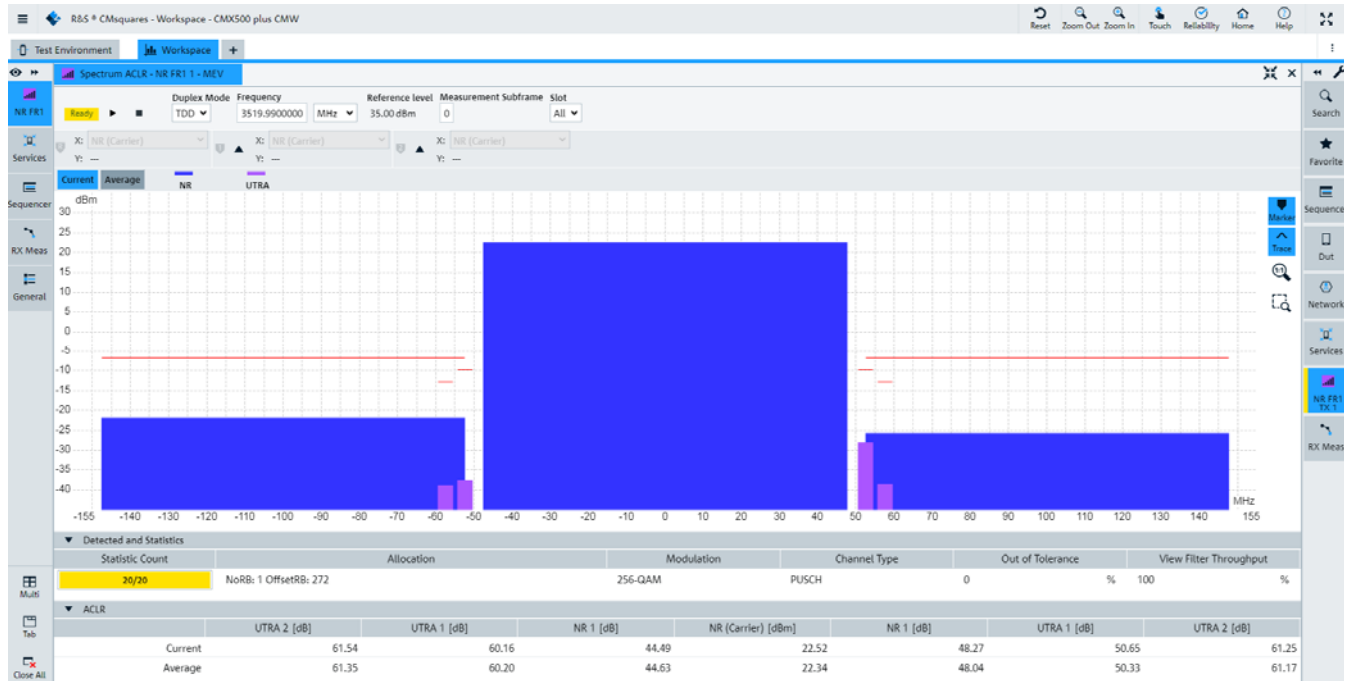
(ID 21) PUSCH Modulation

Common uplink configuration NR

High

{DFT-s-OFDM 256 QAM}

{Edge_1RB_Right}



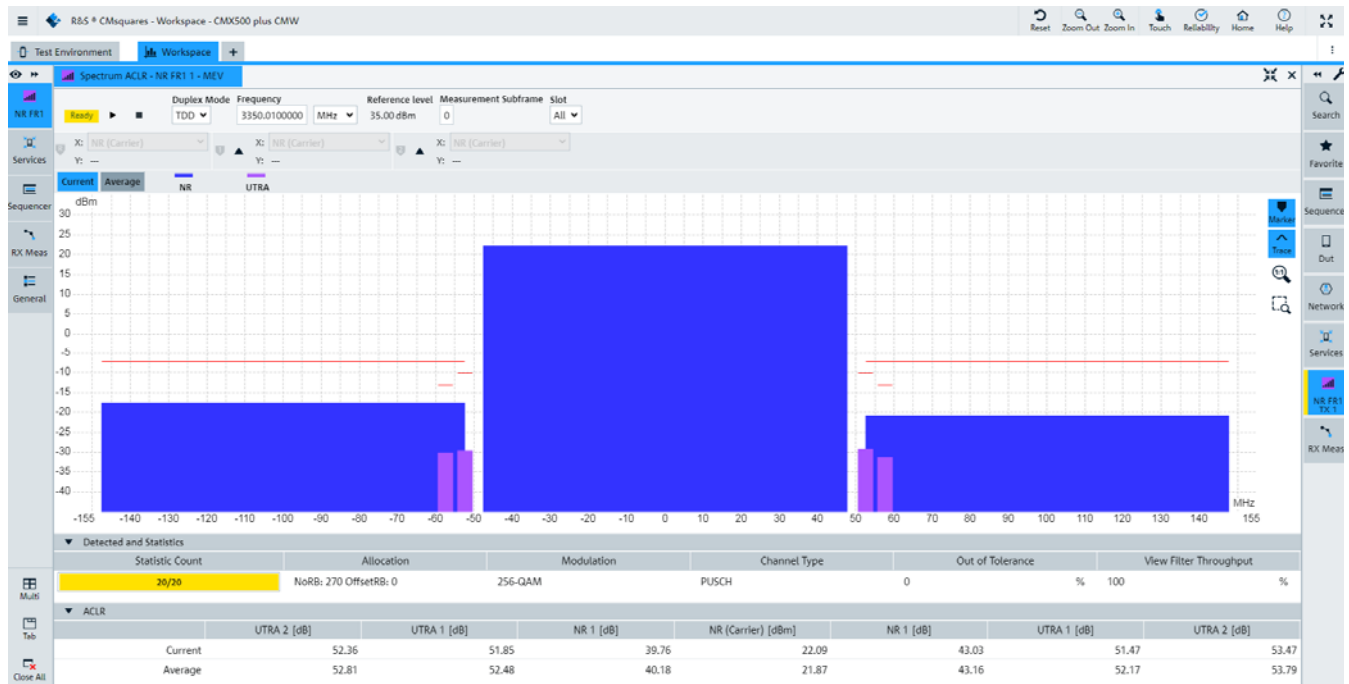
(ID 22) PUSCH Modulation

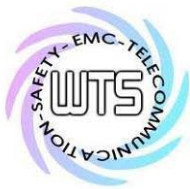
Common uplink configuration NR

Low

{DFT-s-OFDM 256 QAM}

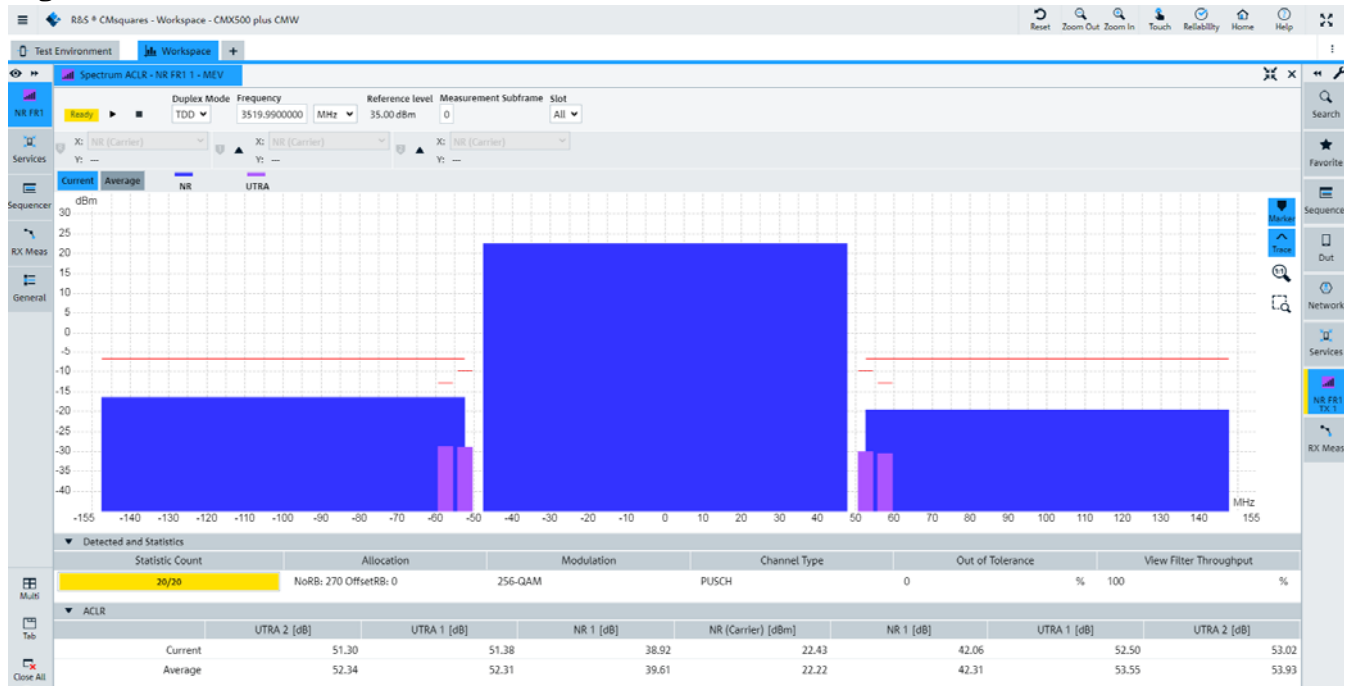
{Outer_Full}





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High



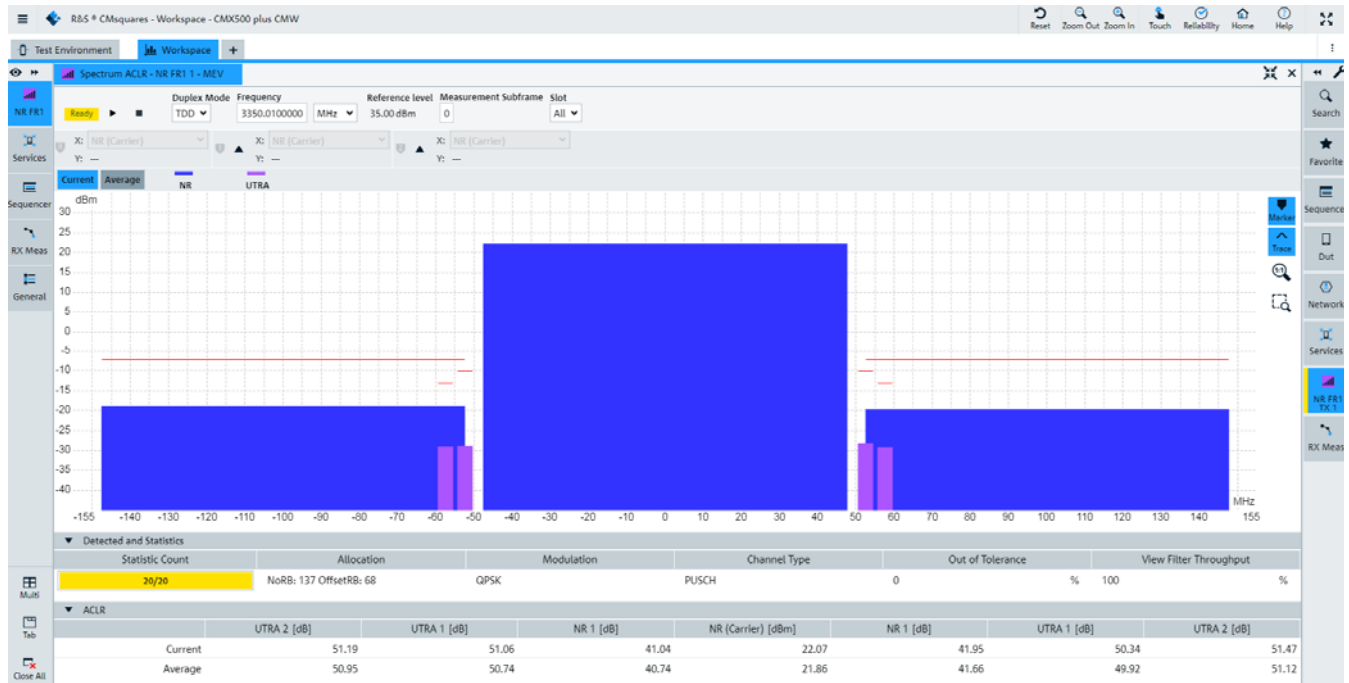
(ID 23) PUSCH Modulation

{CP-OFDM QPSK}

Common uplink configuration NR

{Inner_Full}

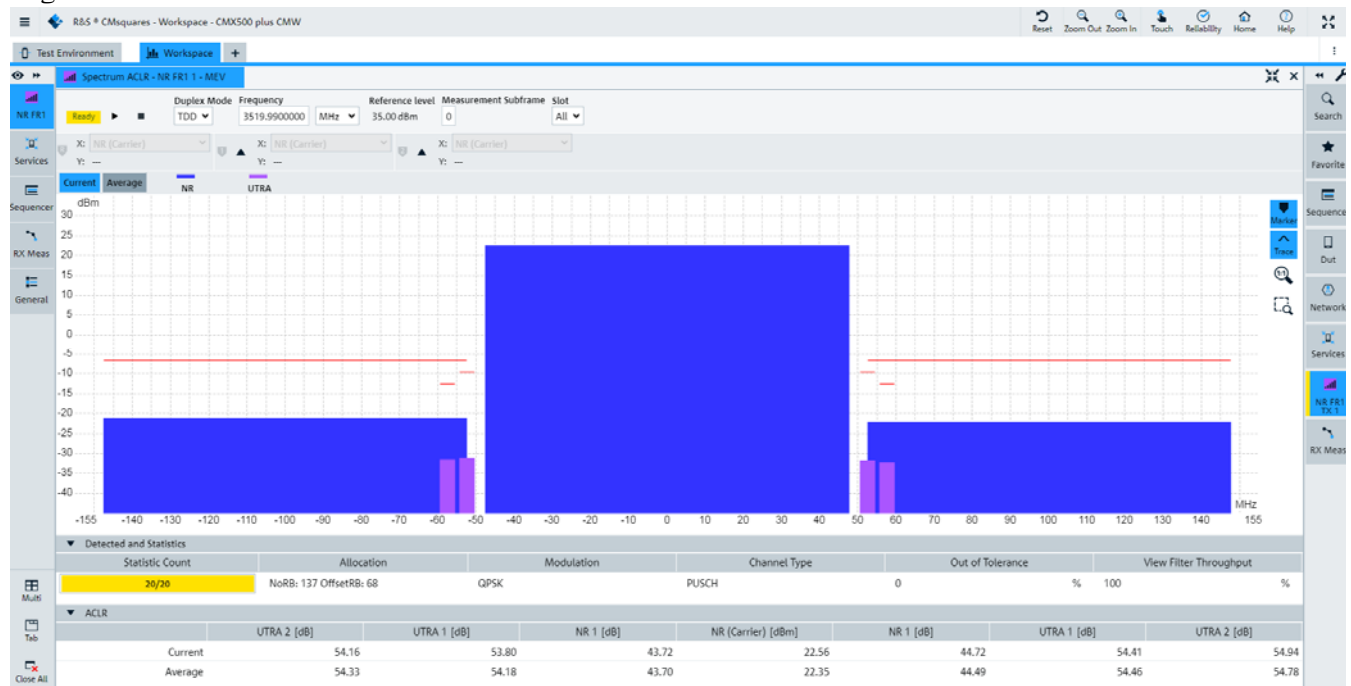
Low





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High



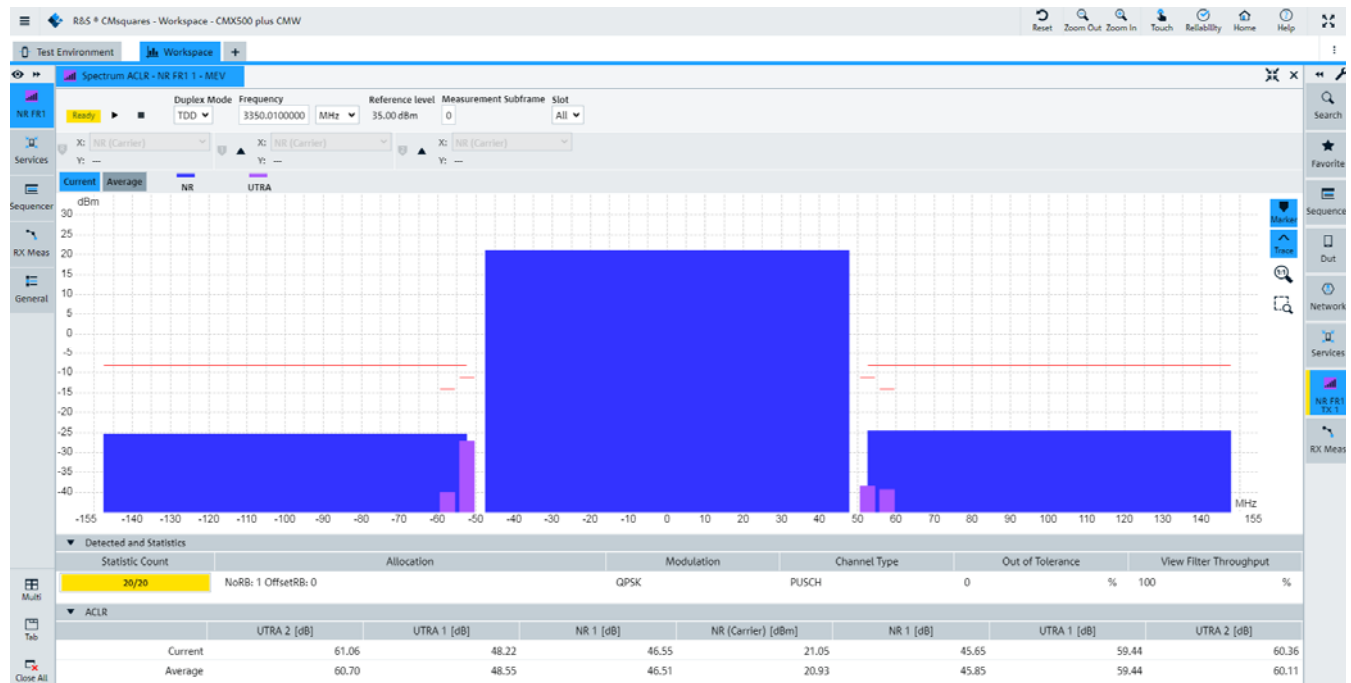
(ID 24) PUSCH Modulation

{CP-OFDM QPSK}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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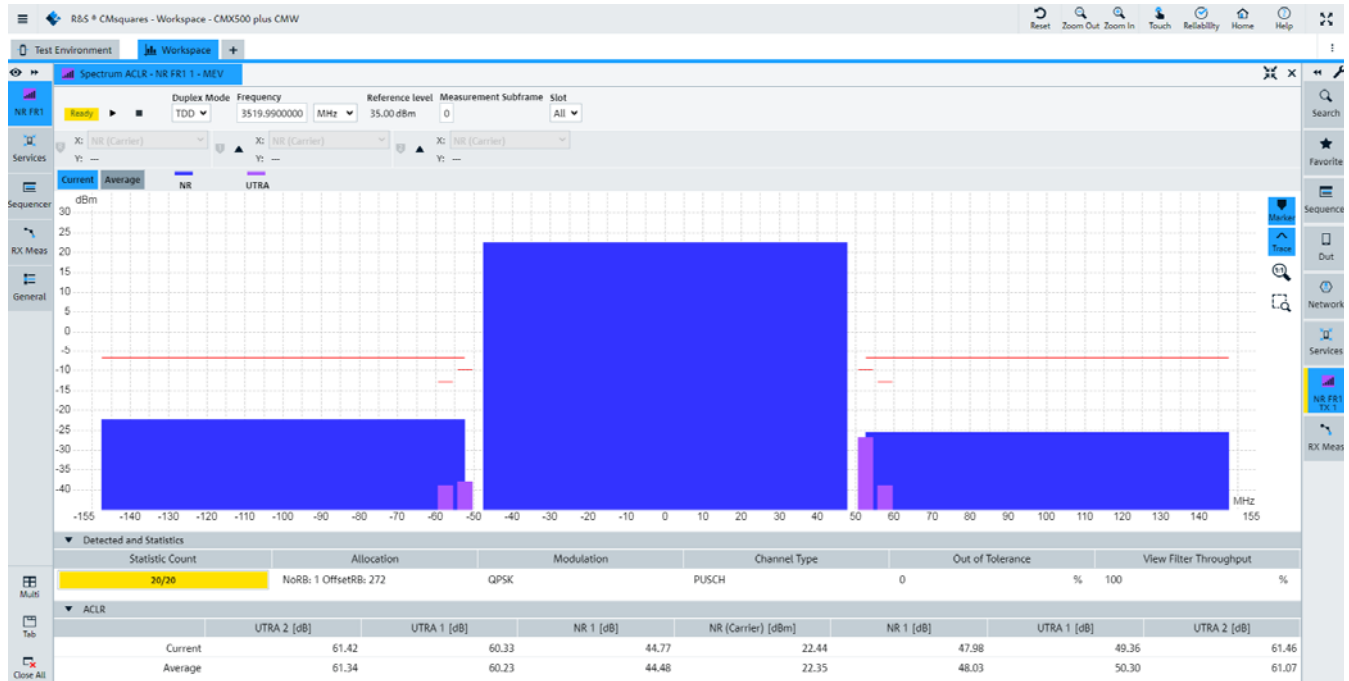
(ID 25) PUSCH Modulation

Common uplink configuration NR

High

{CP-OFDM QPSK}

{Edge_1RB_Right}



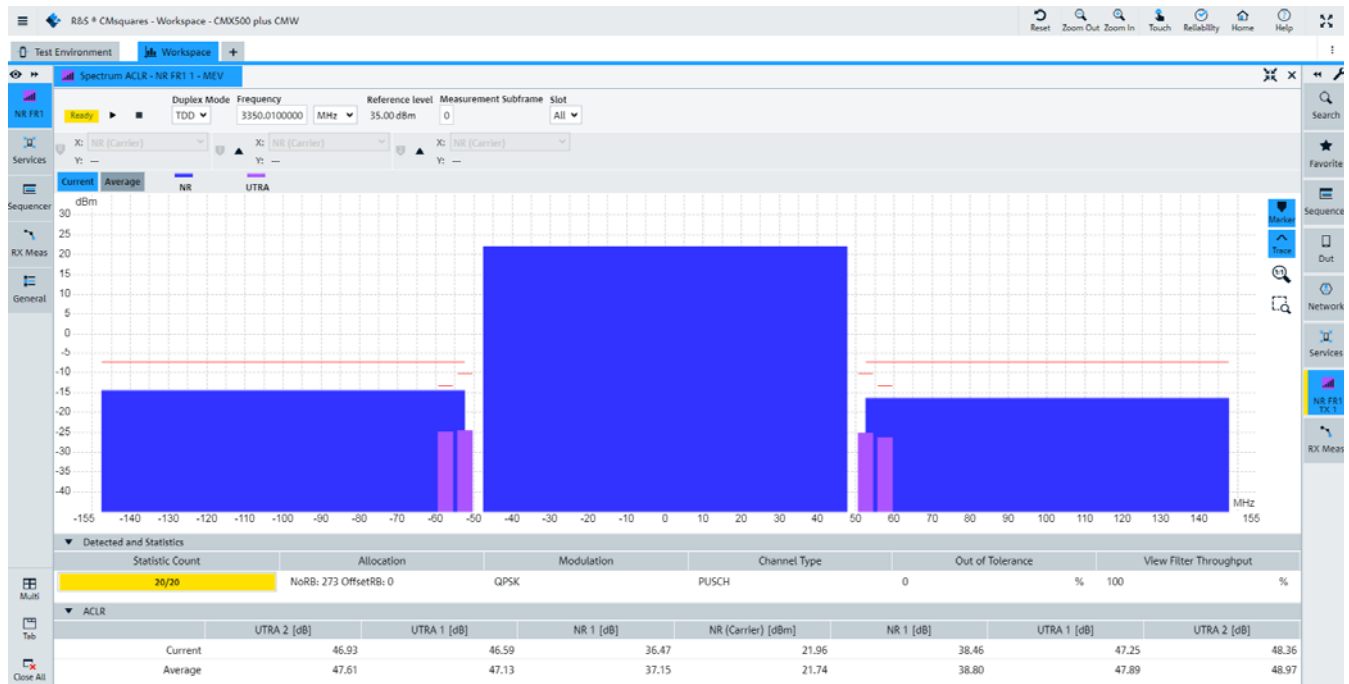
(ID 26) PUSCH Modulation

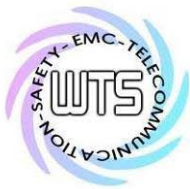
Common uplink configuration NR

Low

{CP-OFDM QPSK}

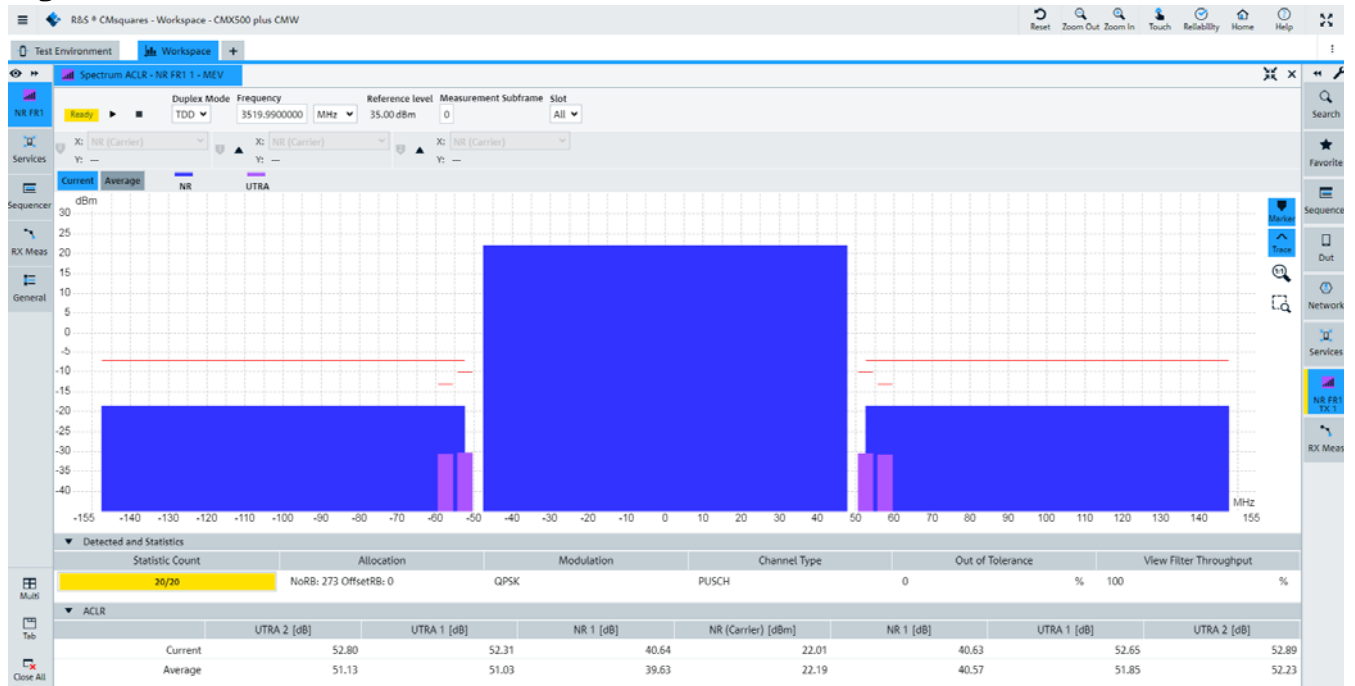
{Outer_Full}





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High



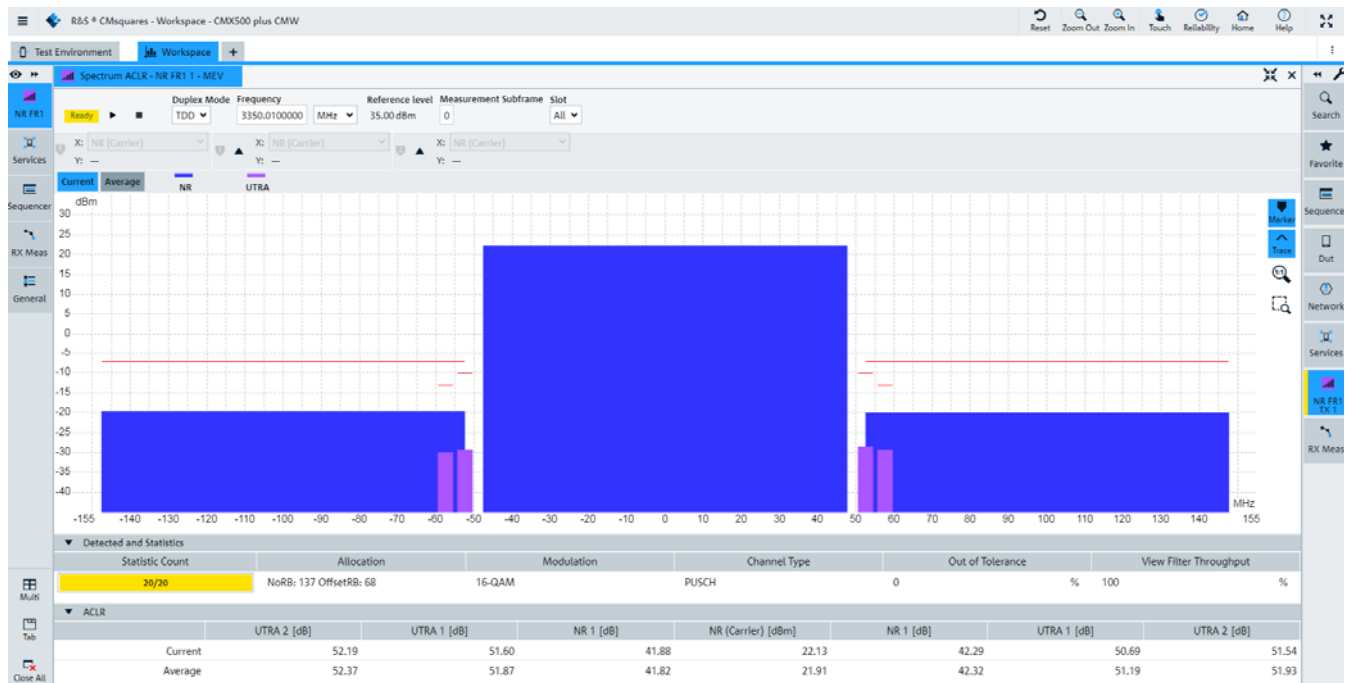
(ID 27) PUSCH Modulation

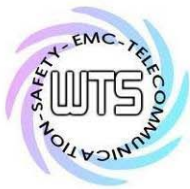
{CP-OFDM 16 QAM}

Common uplink configuration NR

{Inner_Full}

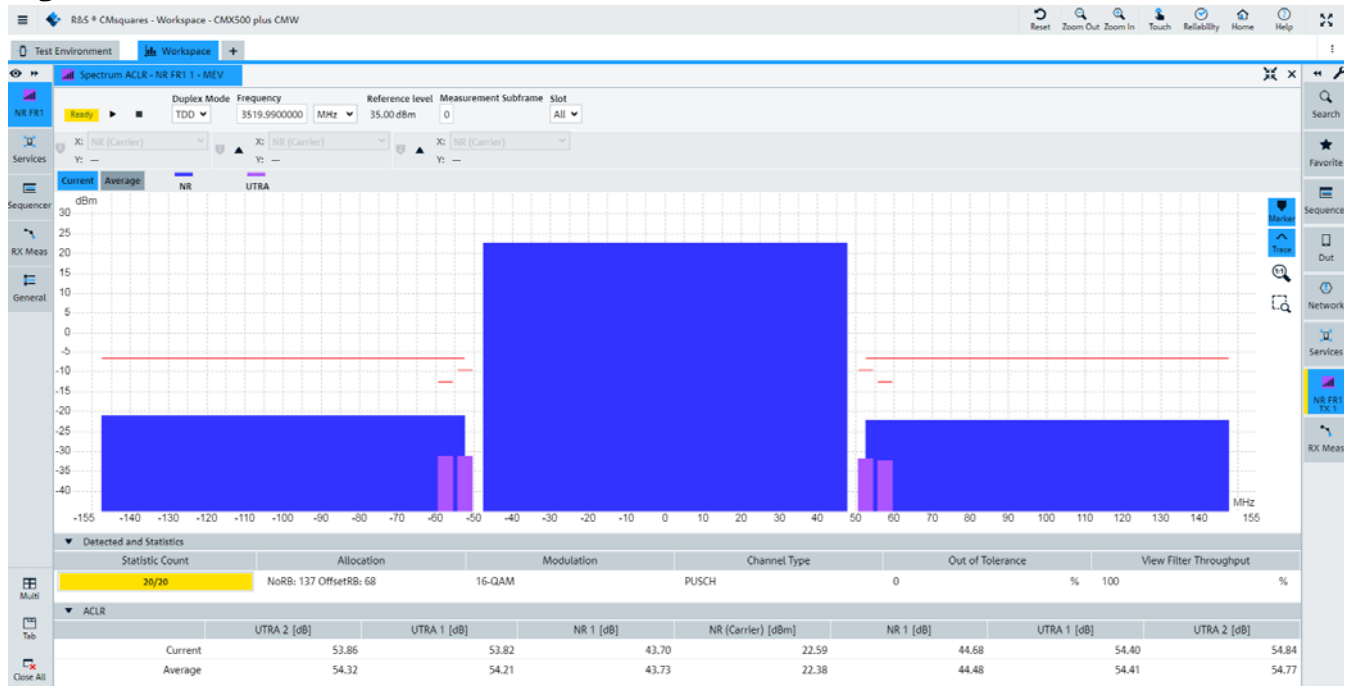
Low





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High



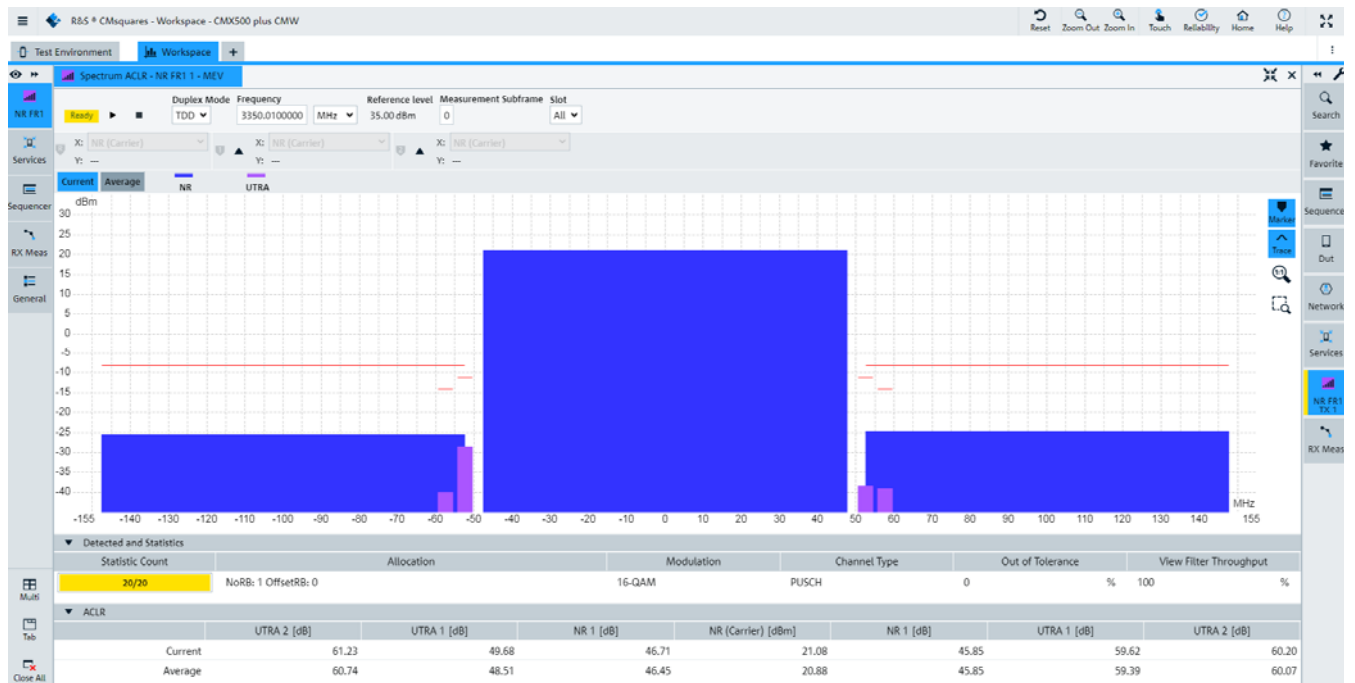
(ID 28) PUSCH Modulation

{CP-OFDM 16 QAM}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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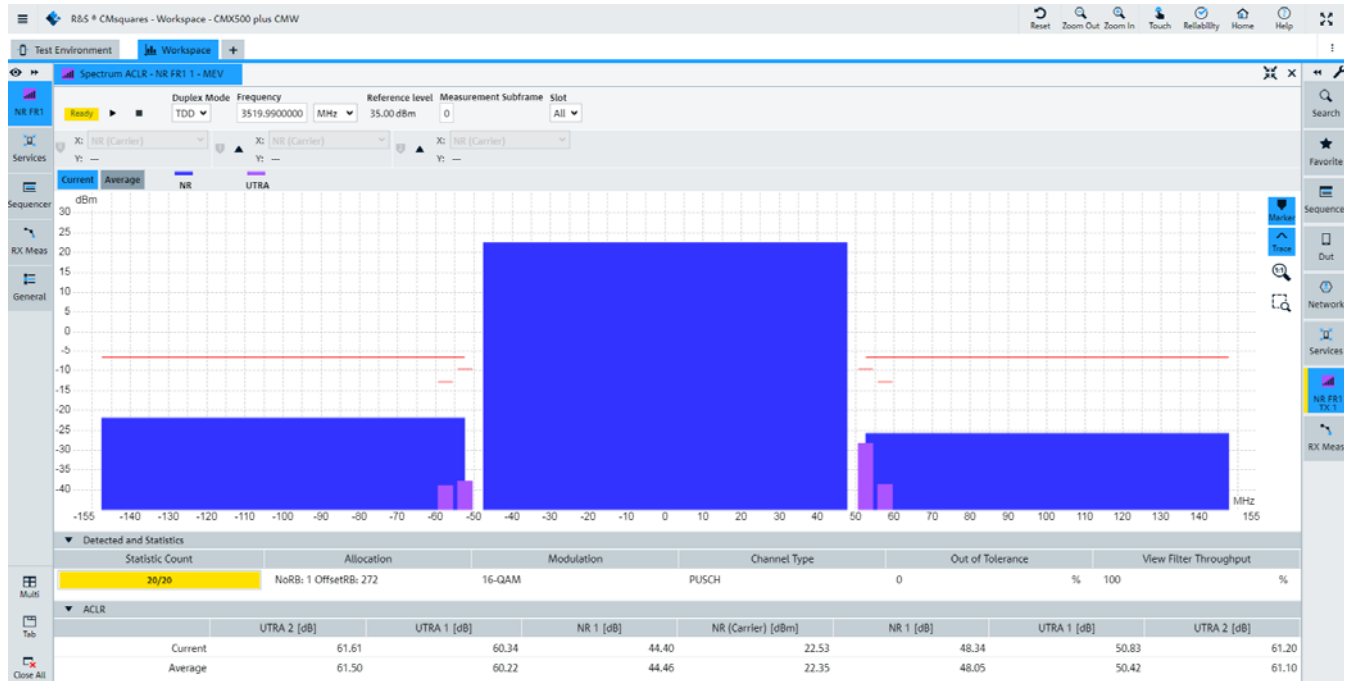
(ID 29) PUSCH Modulation

Common uplink configuration NR

High

{CP-OFDM 16 QAM}

{Edge_1RB_Right}



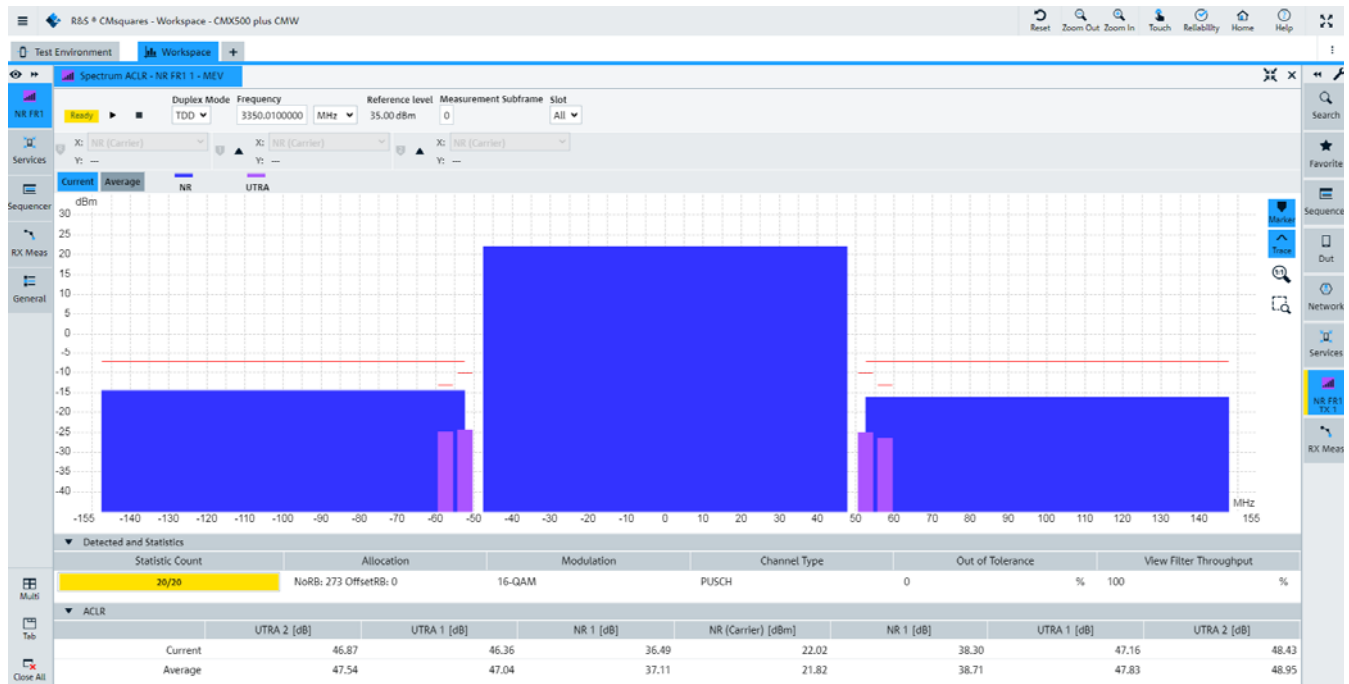
(ID 30) PUSCH Modulation

Common uplink configuration NR

Low

{CP-OFDM 16 QAM}

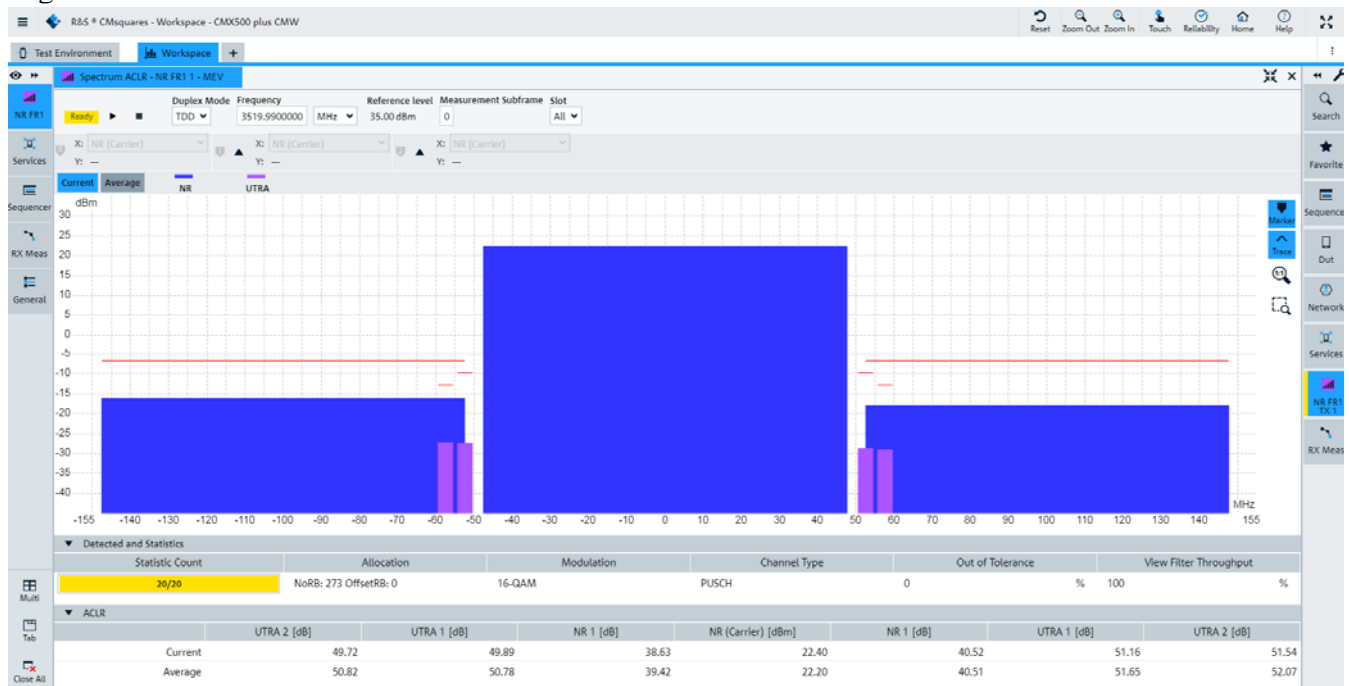
{Outer_Full}





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High



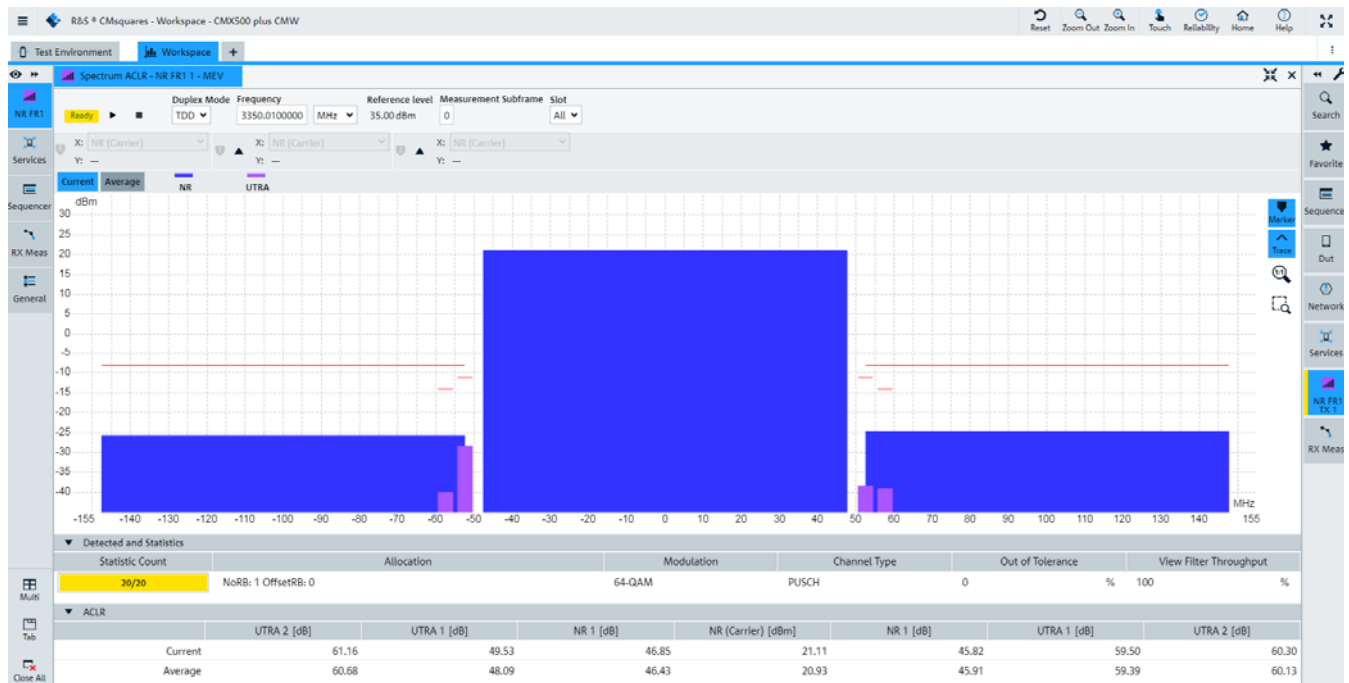
(ID 31) PUSCH Modulation

{CP-OFDM 64 QAM}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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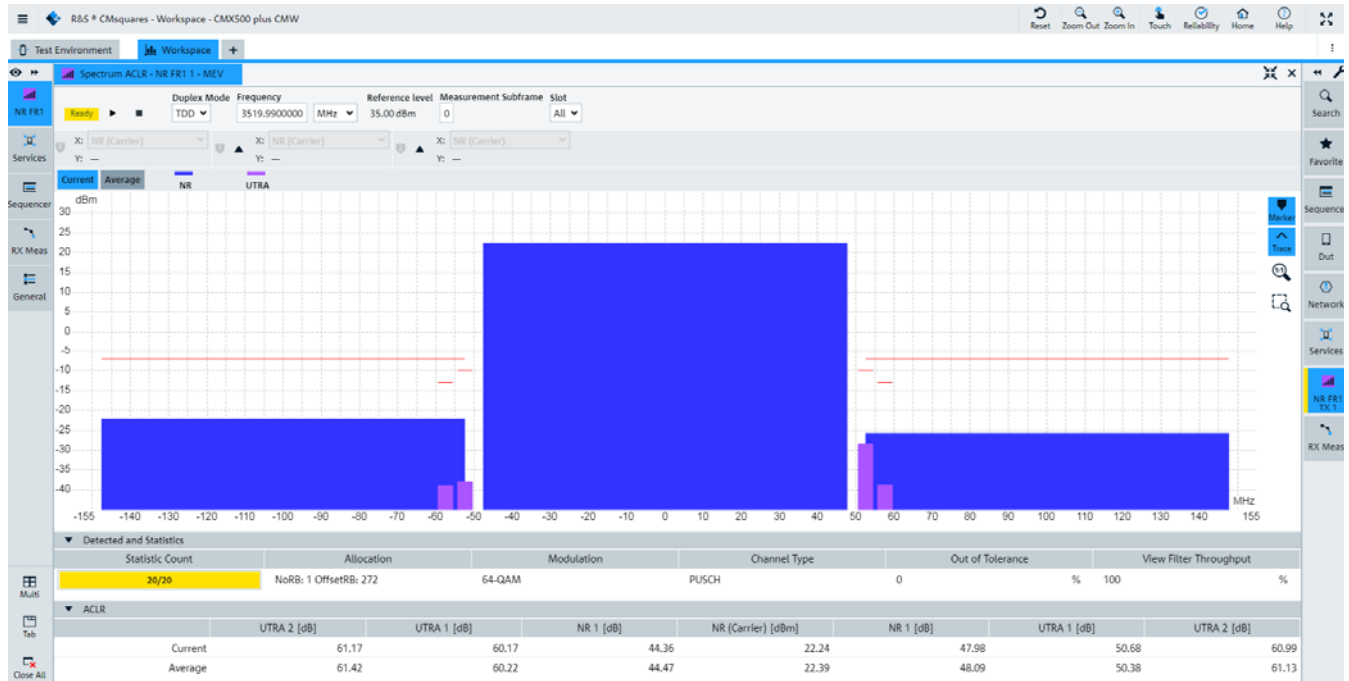
(ID 32) PUSCH Modulation

Common uplink configuration NR

High

{CP-OFDM 64 QAM}

{Edge_1RB_Right}



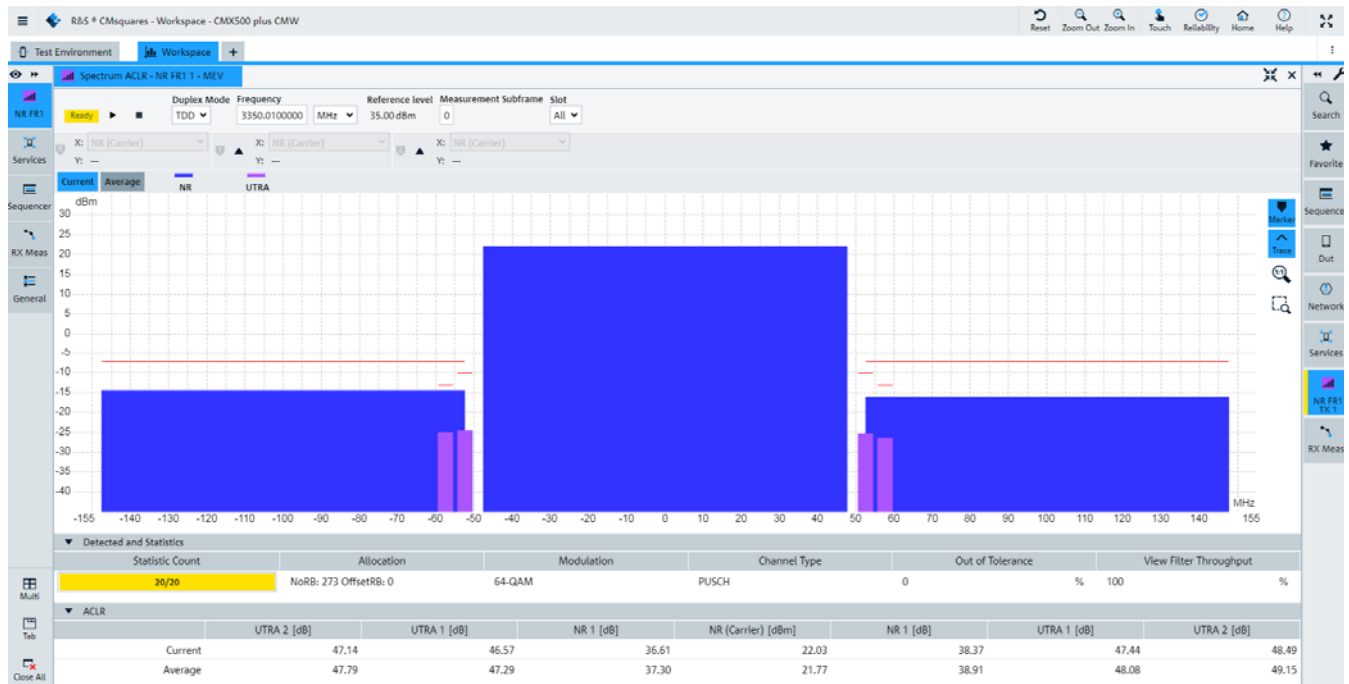
(ID 33) PUSCH Modulation

Common uplink configuration NR

Low

{CP-OFDM 64 QAM}

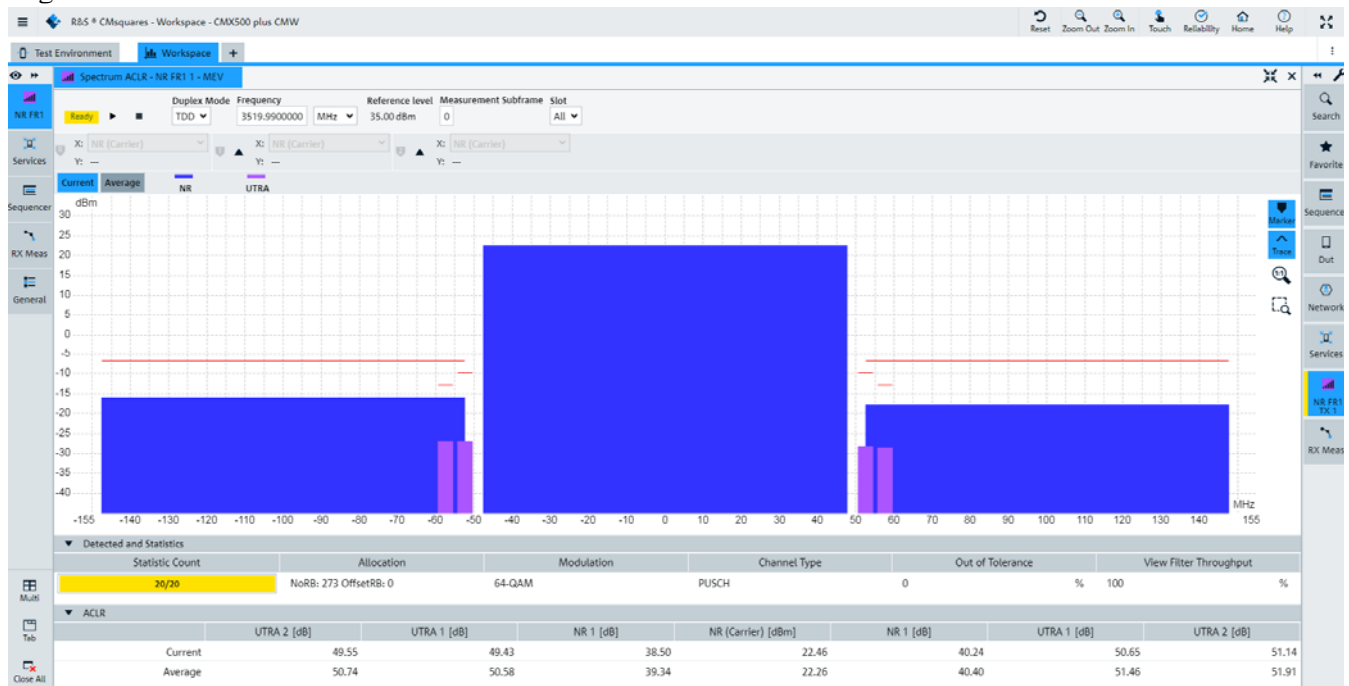
{Outer_Full}





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High



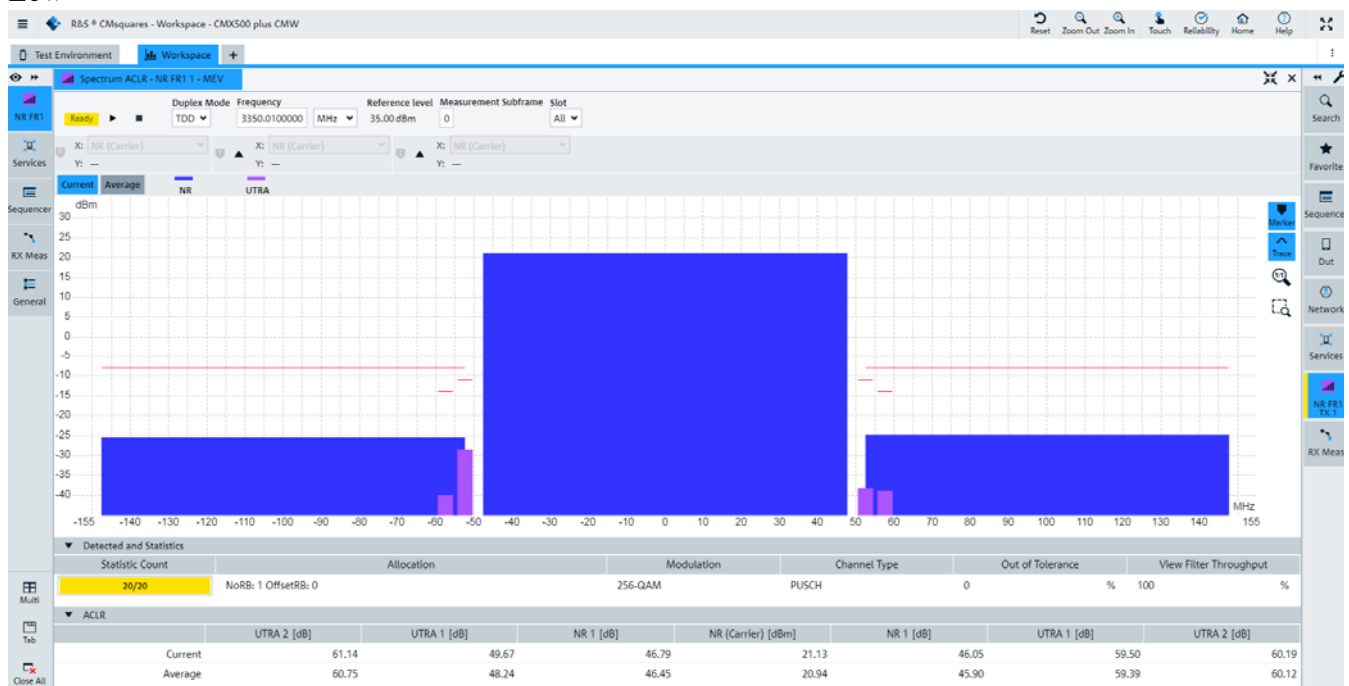
(ID 34) PUSCH Modulation

{CP-OFDM 256 QAM}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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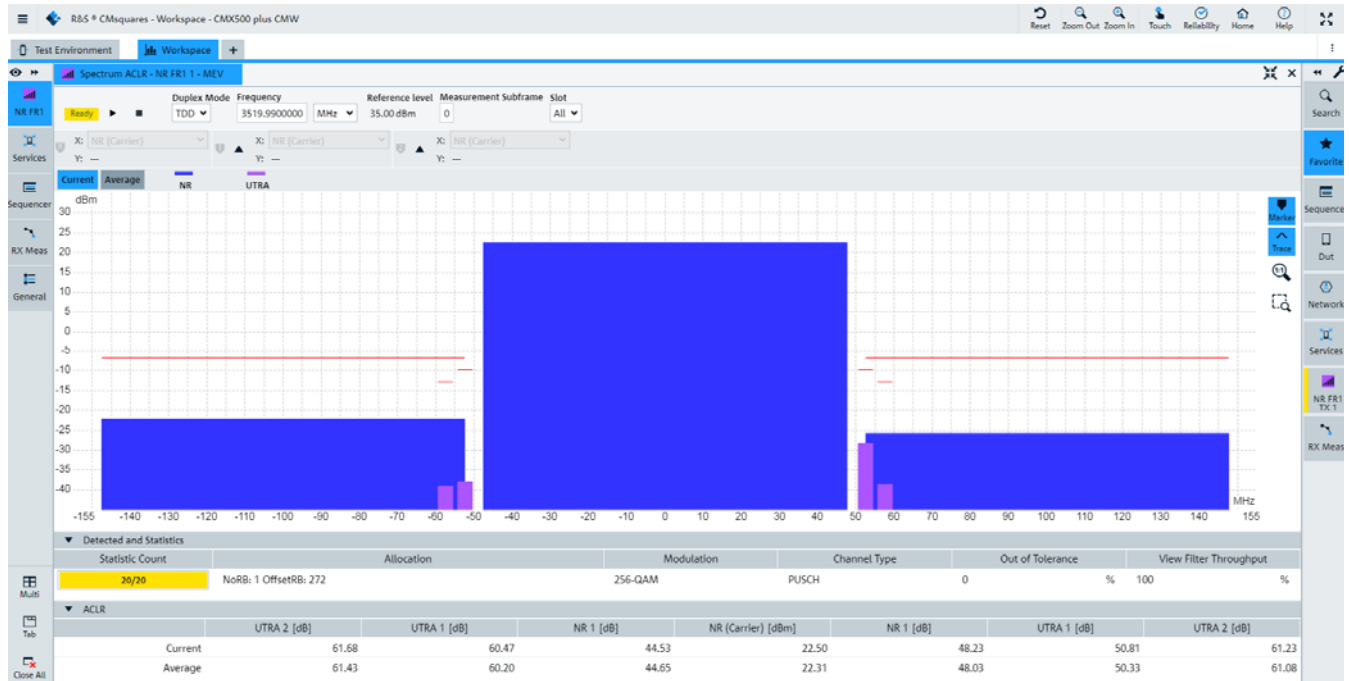
(ID 35) PUSCH Modulation

Common uplink configuration NR

High

{CP-OFDM 256 QAM}

{Edge_1RB_Right}



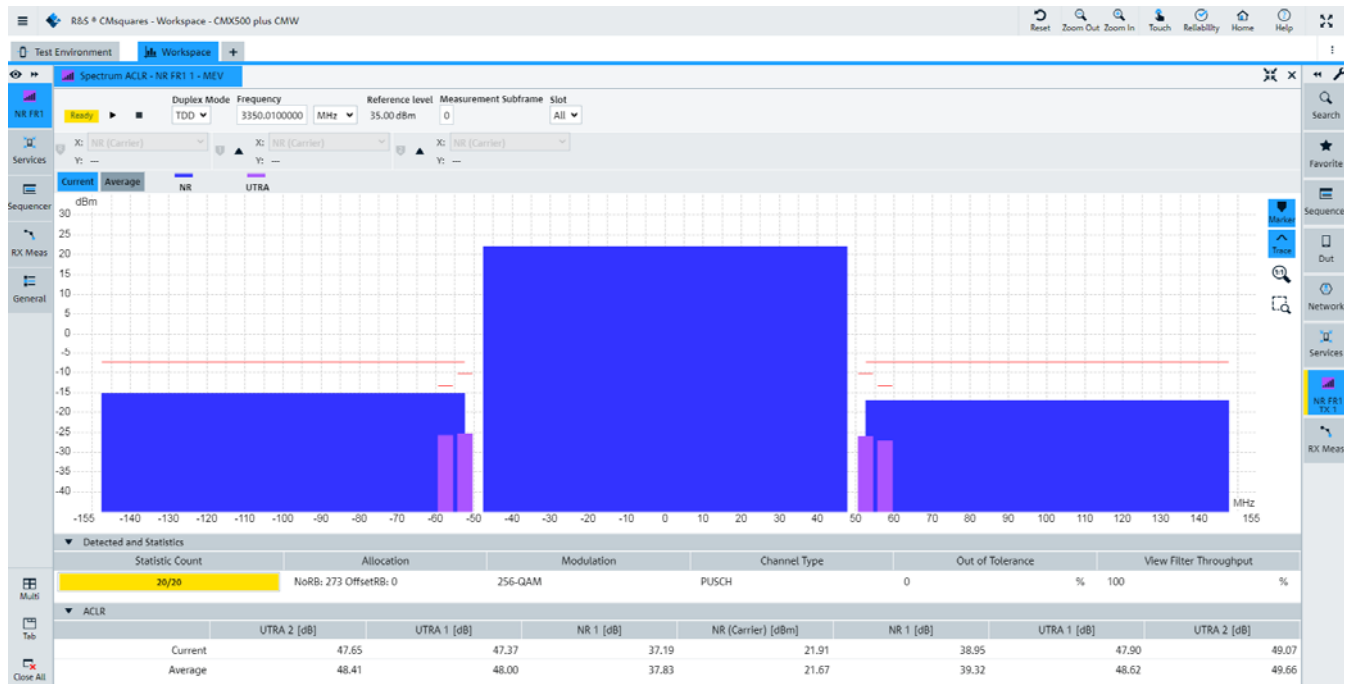
(ID 36) PUSCH Modulation

Common uplink configuration NR

Low

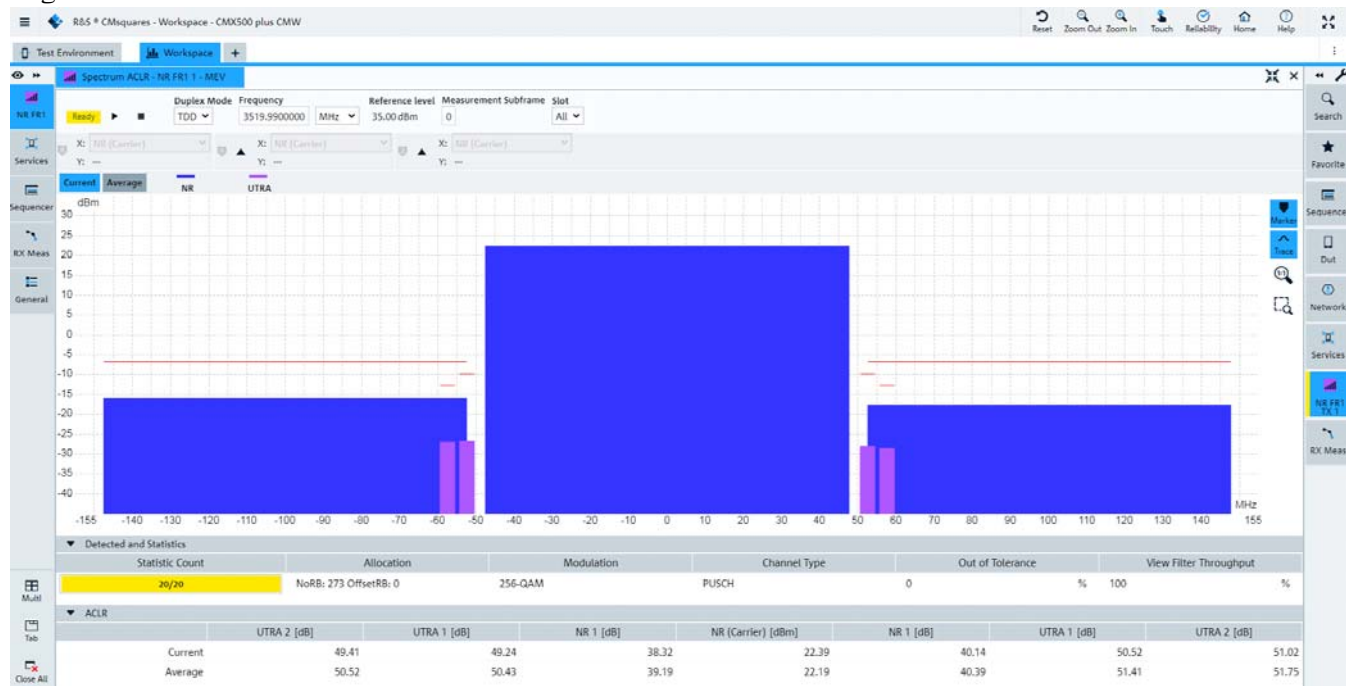
{CP-OFDM 256 QAM}

{Outer_Full}



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High



6.2 限制值

NR_{ACLR} 限制值：

若測量之鄰頻功率超過-50dBm，應符合附表 7 之 NR 相鄰頻道洩漏功率比限制值

附表 7、FR1 相鄰頻道洩漏功率比限制值(參考 3GPP TS 38.521-1 Table 6.5.2.4.1.5-2)

	終端設備功率等級 2	終端設備功率等級 3
NR _{ACLR}	31 - TT dB	30 - TT dB

UTRA_{ACLR} 限制值：

若測量之鄰頻功率超過-50dBm，則應符合附表 11 之 UTRA 相鄰頻道洩漏功率比限制值。

附表 11、FR1 相鄰頻道洩漏功率比(UTRA_{ACLR}) 限制值(參考 3GPP 38.521-1 Table 6.5.2.4.2.5-2)

	終端設備功率等級 3(註1)
UTRA _{ACLR1} (註2)	33 dB - TT
UTRA _{ACLR2} (註3)	36 dB - TT

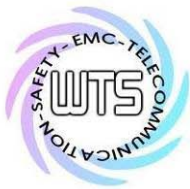
註1：TT = 0.8 dB。

註2：UTRA_{ACLR1}為第一個 UTRA 相鄰頻道，其中心頻率離 NR 頻道邊緣=2.5MHz。

註3：UTRA_{ACLR2}為第二個 UTRA 相鄰頻道，其中心頻率離 NR 頻道邊緣=7.5MHz。

附表 8、FR1 NR 相鄰頻道洩漏功率比測試誤差(Test Tolerance, TT)(參考 3GPP TS 38.521-1 Table 6.5.2.4.1.5-3)

	$f \leq 3.0\text{GHz}$	$3.0\text{GHz} < f \leq 4.2\text{GHz}$	$4.2\text{GHz} < f \leq 6.0\text{GHz}$
BW $\leq 100\text{MHz}$	0.8 dB	0.8 dB	0.8 dB



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6.3 相鄰頻道洩漏功率比之儀器設備

儀器名稱	廠牌	型號	序號	校正日期	有效期限
Wideband Radio Communication Tester	R&S	CMW500	168554	2020/02/11	2021/02/10
Radio Communication Tester	R&S	CMX500	101231	Function test	

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7 發射頻譜波罩測量

測試評估依照附表17分為下列不同模式，依規定檢測檢測頻道為低、高二個頻道，並分別對最低及最高之工作頻寬進行檢測。

預設條件						
測試環境	常態環境常態電壓					
測試頻道	低、高					
測試頻道頻寬	最低、最高					
子載波間隔	最低、最高					
測試 ID	測試參數					
	頻率	頻道頻寬	子載波間隔	下行結構	上行結構	
					調變方式 (註2)	資源區塊分配 (註1)
1(註3)	低頻道	預設	預設	不適用	DFT-s-OFDM PI/2 BPSK	Edge_1RB_Left
2(註3)	高頻道				DFT-s-OFDM PI/2 BPSK	Edge_1RB_Right
3(註3)	預設				DFT-s-OFDM PI/2 BPSK	Outer_Full
4	低頻道				DFT-s-OFDM QPSK	Edger_1RB_Left
5	高頻道				DFT-s-OFDM QPSK	Edge_1RB_Right
6	預設				DFT-s-OFDM QPSK	Outer_Full
7	低頻道				DFT-s-OFDM 16 QAM	Edge_1RB_Left
8	高頻道				DFT-s-OFDM 16 QAM	Edge_1RB_Right
9	預設				DFT-s-OFDM 16 QAM	Outer_Full
10	低頻道				DFT-s-OFDM 64 QAM	Edge_1RB_Left

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11	高頻道				DFT-s-OFDM 64 QAM	Edge_1RB_Right
12	預設				DFT-s-OFDM 64 QAM	Outer_Full
13	低頻道				DFT-s-OFDM 256 QAM	Edge_1RB_Left
14	高頻道				DFT-s-OFDM 256 QAM	Edge_1RB_Right
15	預設				DFT-s-OFDM 256 QAM	Outer_Full
16	低頻道				CP-OFDM QPSK	Edge_1RB_Left
17	高頻道				CP-OFDM QPSK	Edge_1RB_Right
18	預設				CP-OFDM QPSK	Outer_Full
19	低頻道				CP-OFDM 16 QAM	Edge_1RB_Left
20	高頻道				CP-OFDM 16 QAM	Edge_1RB_Right
21	預設				CP-OFDM 16 QAM	Outer_Full
22	低頻道				CP-OFDM 64 QAM	Edge_1RB_Left
23	高頻道				CP-OFDM 64 QAM	Edge_1RB_Right
24	預設				CP-OFDM 64 QAM	Outer_Full
25	低頻道				CP-OFDM 256 QAM	Edge_1RB_Left
26	高頻道				CP-OFDM 256 QAM	Edge_1RB_Right
27	預設				CP-OFDM 256 QAM	Outer_Full
註1:每一資源區塊分配規格結構應符合3GPP TS 38.521-1 Table 6.1-1規定。 註2: DFT-s-OFDM PI/2 BPSK 測試僅適用支援 half Pi BPSK 之 FR1終端設備。 註3: 針對功率等級3，終端設備操作在2500-2690MHz(n41) / 3300-3570MHz(n78)應分別測試 IE powerBoostPi2BPSK 設定為1及0。						



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7.1 發射頻譜波罩之量測結果

測試日期: 2020-07-19~2020-07-29 環境溫度: 22.6℃ 環境濕度: 50.6% 測試者: Robert

n1 Channel Bandwidth : 5MHz

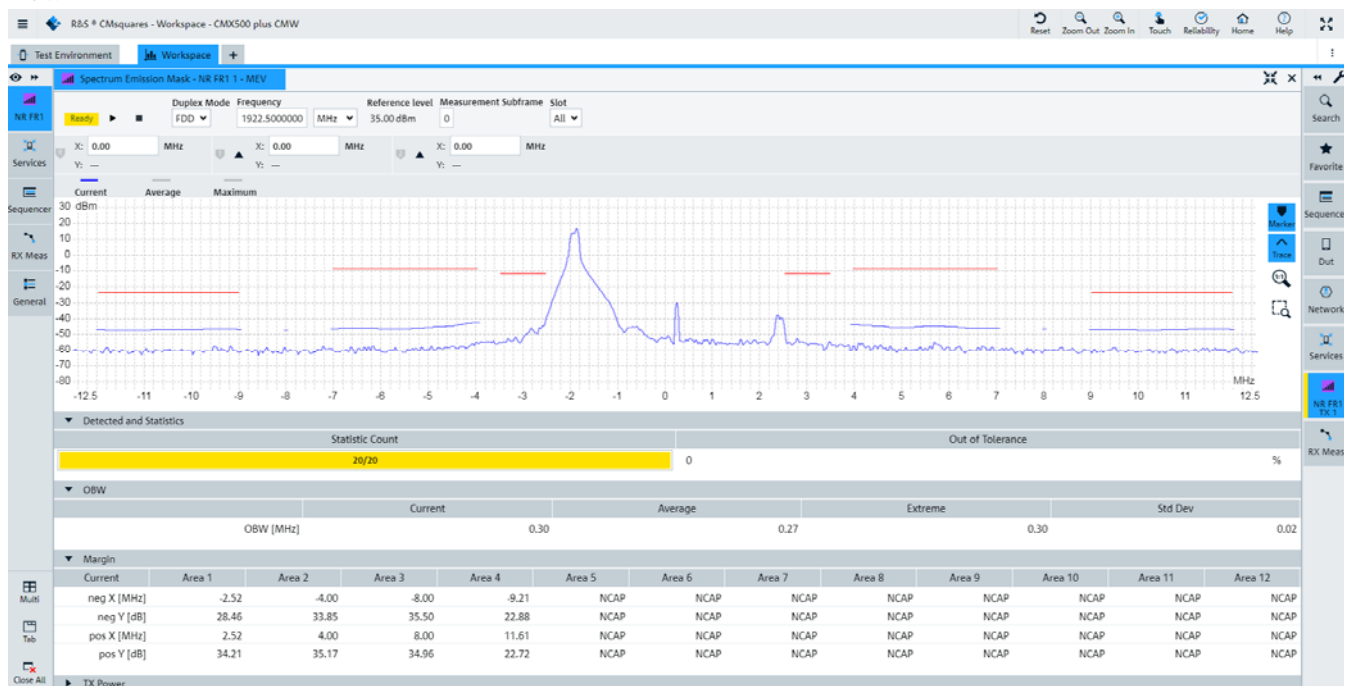
(ID 1) PUSCH Modulation

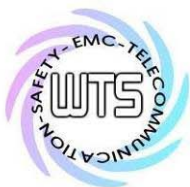
{DFT-s-OFDM PI/2 BPSK}

Common uplink configuration NR

{Edge_1RB_Left}

Low





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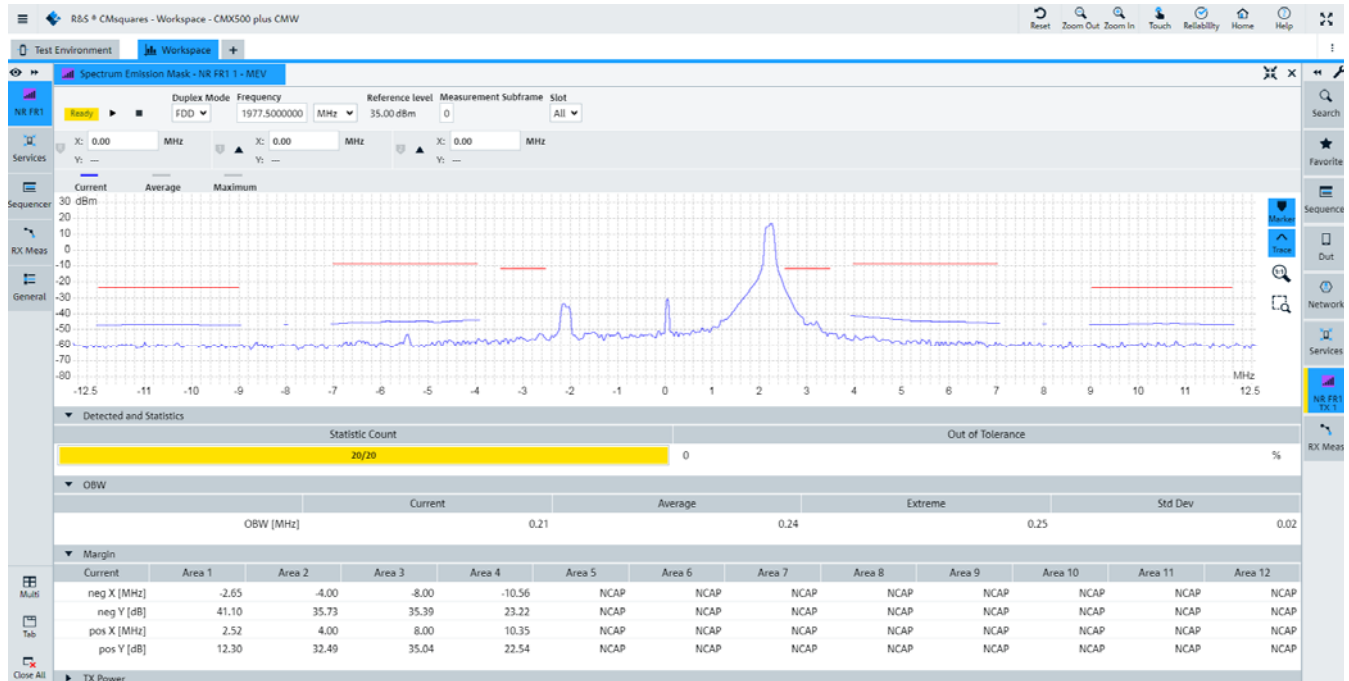
(ID 2) PUSCH Modulation

Common uplink configuration NR

High

{DFT-s-OFDM PI/2 BPSK}

{Edge_1RB_Right}



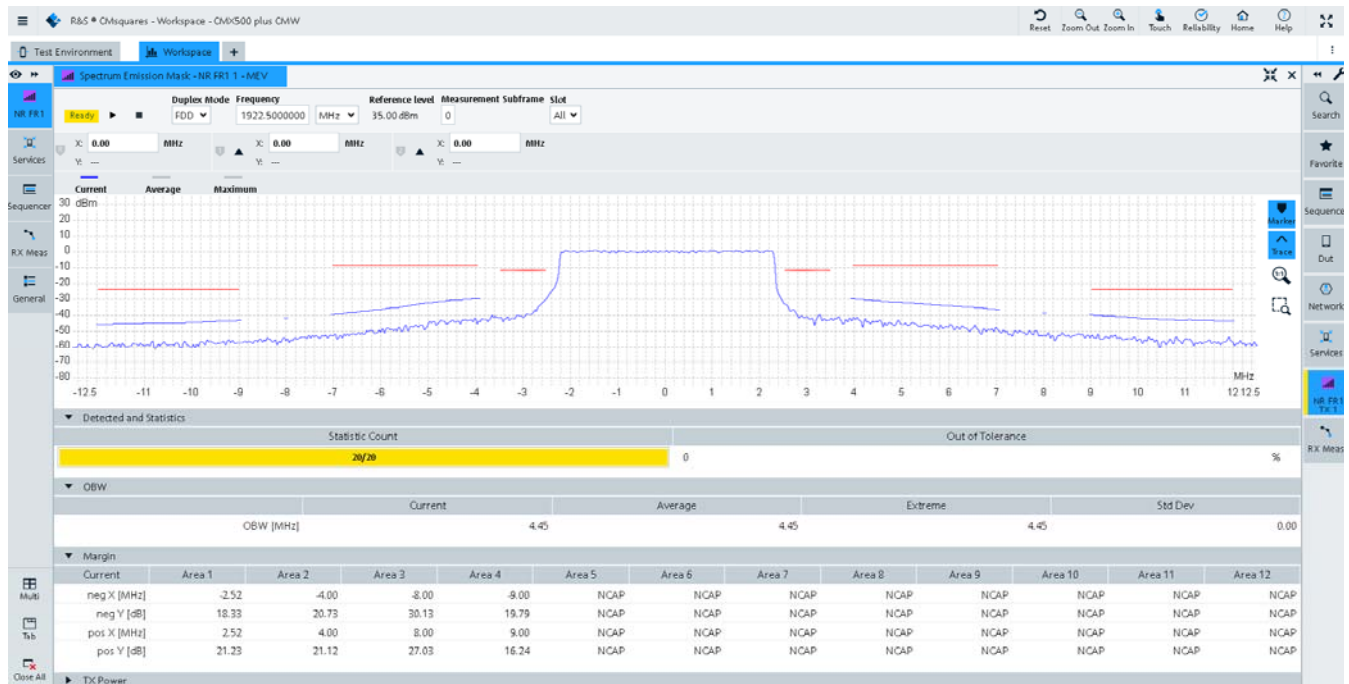
(ID 3) PUSCH Modulation

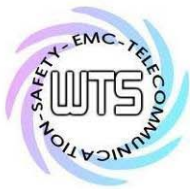
Common uplink configuration NR

Low

{DFT-s-OFDM PI/2 BPSK}

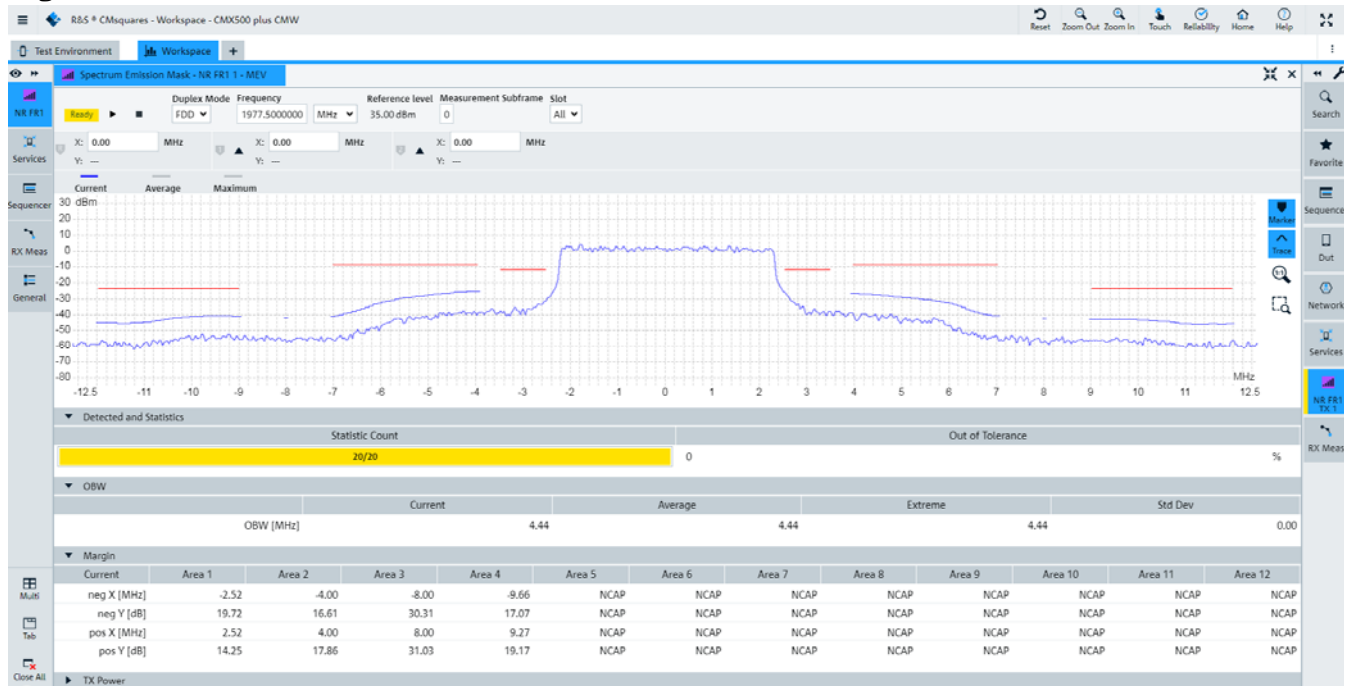
{Outer_Full}





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High



(ID 4) PUSCH Modulation

{DFT-s-OFDM QPSK}

Common uplink configuration NR

{Edge_1RB_Left}

Low

