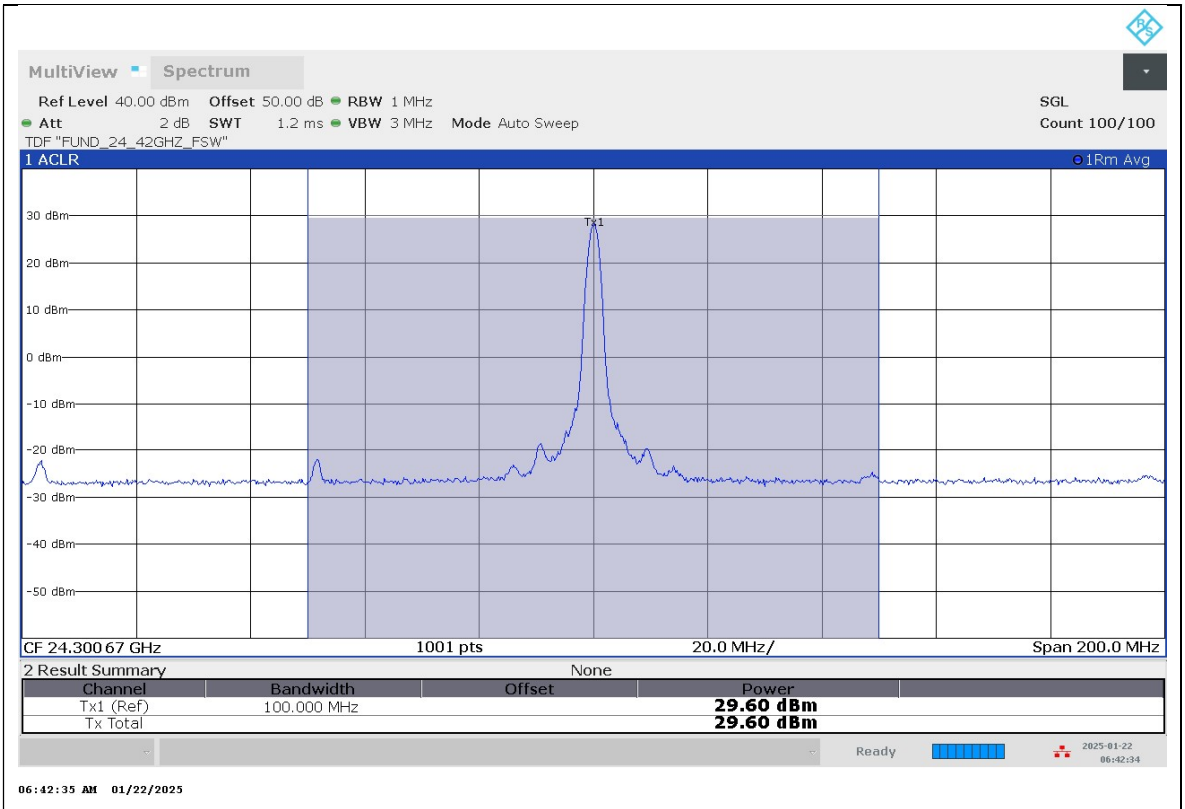
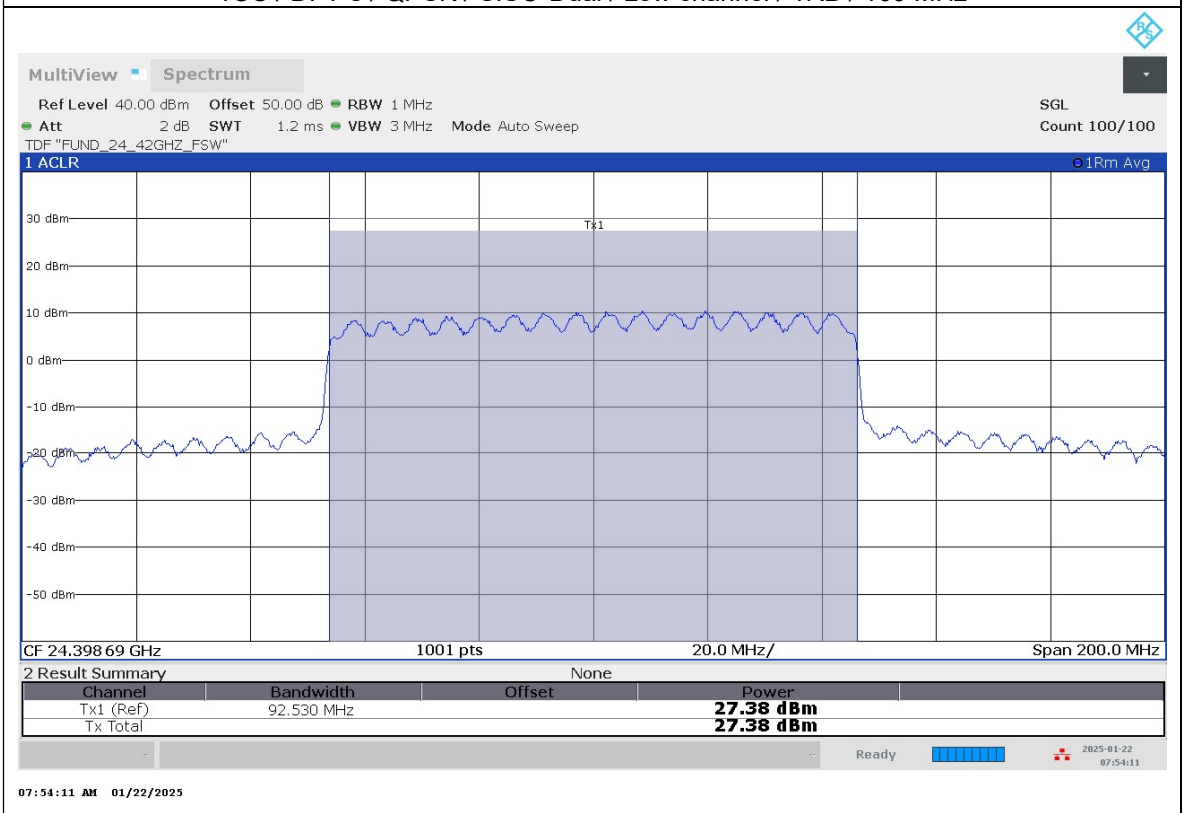


1CC / DFT-s / QPSK / SISO-Dual / Low channel / 1RB / 100 MHz



1CC / DFT-s / QPSK / SISO-Dual / High channel / Full RB / 100 MHz

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Antenna 1 / Ant M / Band n258 SB2

Test Case	OFDM	NR Band	Antenna	BW(MHz)	CCs	Mod	Tx Type	Freq(MHz)	Beam ID	Beam Pol	Ant Pol	RB	Result(dBm)
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO	24775	271	H	V	1_19	**28.26**
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO	25000	271	H	V	1_16	27.54
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO	25225	271	H	V	1_11	27.17
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	BPSK	SISO	24775	271	H	V	1_19	27.81
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	16QAM	SISO	24775	271	H	V	1_19	27.77
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	64QAM	SISO	24775	271	H	V	1_19	24.39
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO	24775	271	H	V	32_0	**27.86**
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO	25000	271	H	V	32_0	27.16
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO	25225	271	H	V	32_0	26.89
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO	24800	271	H	V	1_22	**28.04**
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO	25000	271	H	V	1_22	27.49
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO	25200	271	H	V	1_22	27.36
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	BPSK	SISO	24800	271	H	V	1_22	27.93
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	16QAM	SISO	24800	271	H	V	1_22	27.88
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	64QAM	SISO	24800	271	H	V	1_22	24.44
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO	24800	271	H	V	64_0	**27.69**
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO	25000	271	H	V	64_0	27.11
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO	25200	271	H	V	64_0	26.98

Test Case	OFDM	NR Band	Antenna	BW(MHz)	CCs	Mod	Tx Type	Freq(MHz)	Beam ID	Beam Pol	RB	Result(dBm)
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO-Dual	24775	15+271	H+V	1_16	**29.05**
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO-Dual	25000	15+271	H+V	1_16	27.75
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO-Dual	25225	15+271	H+V	1_16	27.72
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	BPSK	SISO-Dual	24775	15+271	H+V	1_16	28.17
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	16QAM	SISO-Dual	24775	15+271	H+V	1_16	28.25
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	64QAM	SISO-Dual	24775	15+271	H+V	1_16	25.09
EIRP	CP	n258 SB2	Ant M	50	1CC	QPSK	MIMO	24775	15+271	H+V	1_16	27.11
EIRP	CP	n258 SB2	Ant M	50	1CC	16QAM	MIMO	24775	15+271	H+V	1_16	25.98
EIRP	CP	n258 SB2	Ant M	50	1CC	64QAM	MIMO	24775	15+271	H+V	1_16	21.62
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO-Dual	24775	15+271	H+V	32_0	**27.26**
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO-Dual	25000	15+271	H+V	32_0	25.83
EIRP	DFT-s	n258 SB2	Ant M	50	1CC	QPSK	SISO-Dual	25225	15+271	H+V	32_0	25.91
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO-Dual	24800	15+271	H+V	1_22	**29.00**
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO-Dual	25000	15+271	H+V	1_22	28.66
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO-Dual	25200	15+271	H+V	1_22	28.38
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	BPSK	SISO-Dual	24800	15+271	H+V	1_22	28.37
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	16QAM	SISO-Dual	24800	15+271	H+V	1_22	28.43
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	64QAM	SISO-Dual	24800	15+271	H+V	1_22	25.03
EIRP	CP	n258 SB2	Ant M	100	1CC	QPSK	MIMO	24800	15+271	H+V	1_22	26.99
EIRP	CP	n258 SB2	Ant M	100	1CC	16QAM	MIMO	24800	15+271	H+V	1_22	25.93
EIRP	CP	n258 SB2	Ant M	100	1CC	64QAM	MIMO	24800	15+271	H+V	1_22	21.43
EIRP	DFT-s	n258 SB2	Ant M	100+100	2CC	QPSK	SISO-Dual	24800	15+271	H+V	1_22	21.25
EIRP	DFT-s	n258 SB2	Ant M	100+100	2CC	BPSK	SISO-Dual	24800	15+271	H+V	1_22	21.10
EIRP	DFT-s	n258 SB2	Ant M	100+100	2CC	16QAM	SISO-Dual	24800	15+271	H+V	1_22	20.96
EIRP	DFT-s	n258 SB2	Ant M	100+100	2CC	64QAM	SISO-Dual	24800	15+271	H+V	1_22	20.80
EIRP	DFT-s	n258 SB2	Ant M	100+100+100	3CC	QPSK	SISO-Dual	24800	15+271	H+V	1_22	21.26
EIRP	DFT-s	n258 SB2	Ant M	100+100+100	3CC	BPSK	SISO-Dual	24800	15+271	H+V	1_22	21.11
EIRP	DFT-s	n258 SB2	Ant M	100+100+100	3CC	16QAM	SISO-Dual	24800	15+271	H+V	1_22	21.00
EIRP	DFT-s	n258 SB2	Ant M	100+100+100	3CC	64QAM	SISO-Dual	24800	15+271	H+V	1_22	20.91
EIRP	DFT-s	n258 SB2	Ant M	100+100+100+100	4CC	QPSK	SISO-Dual	24800	15+271	H+V	1_22	21.45
EIRP	DFT-s	n258 SB2	Ant M	100+100+100+100	4CC	BPSK	SISO-Dual	24800	15+271	H+V	1_22	21.34
EIRP	DFT-s	n258 SB2	Ant M	100+100+100+100	4CC	16QAM	SISO-Dual	24800	15+271	H+V	1_22	21.41
EIRP	DFT-s	n258 SB2	Ant M	100+100+100+100	4CC	64QAM	SISO-Dual	24800	15+271	H+V	1_22	21.25
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO-Dual	24800	15+271	H+V	64_0	**27.08**
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO-Dual	25000	15+271	H+V	64_0	26.34
EIRP	DFT-s	n258 SB2	Ant M	100	1CC	QPSK	SISO-Dual	25200	15+271	H+V	64_0	26.41
EIRP	DFT-s	n258 SB2	Ant M	100+100	2CC	QPSK	SISO-Dual	24800	15+271	H+V	64_0	26.36
EIRP	DFT-s	n258 SB2	Ant M	100+100	2CC	BPSK	SISO-Dual	24800	15+271	H+V	64_0	26.26
EIRP	DFT-s	n258 SB2	Ant M	100+100	2CC	16QAM	SISO-Dual	24800	15+271	H+V	64_0	25.84
EIRP	DFT-s	n258 SB2	Ant M	100+100	2CC	64QAM	SISO-Dual	24800	15+271	H+V	64_0	22.16
EIRP	DFT-s	n258 SB2	Ant M	100+100+100	3CC	QPSK	SISO-Dual	24800	15+271	H+V	64_0	23.76
EIRP	DFT-s	n258 SB2	Ant M	100+100+100	3CC	BPSK	SISO-Dual	24800	15+271	H+V	64_0	23.78
EIRP	DFT-s	n258 SB2	Ant M	100+100+100	3CC	16QAM	SISO-Dual	24800	15+271	H+V	64_0	22.87
EIRP	DFT-s	n258 SB2	Ant M	100+100+100	3CC	64QAM	SISO-Dual	24800	15+271	H+V	64_0	20.86
EIRP	DFT-s	n258 SB2	Ant M	100+100+100+100	4CC	QPSK	SISO-Dual	24800	15+271	H+V	64_0	24.04
EIRP	DFT-s	n258 SB2	Ant M	100+100+100+100	4CC	BPSK	SISO-Dual	24800	15+271	H+V	64_0	24.03
EIRP	DFT-s	n258 SB2	Ant M	100+100+100+100	4CC	16QAM	SISO-Dual	24800	15+271	H+V	64_0	23.07
EIRP	DFT-s	n258 SB2	Ant M	100+100+100+100	4CC	64QAM	SISO-Dual	24800	15+271	H+V	64_0	20.94

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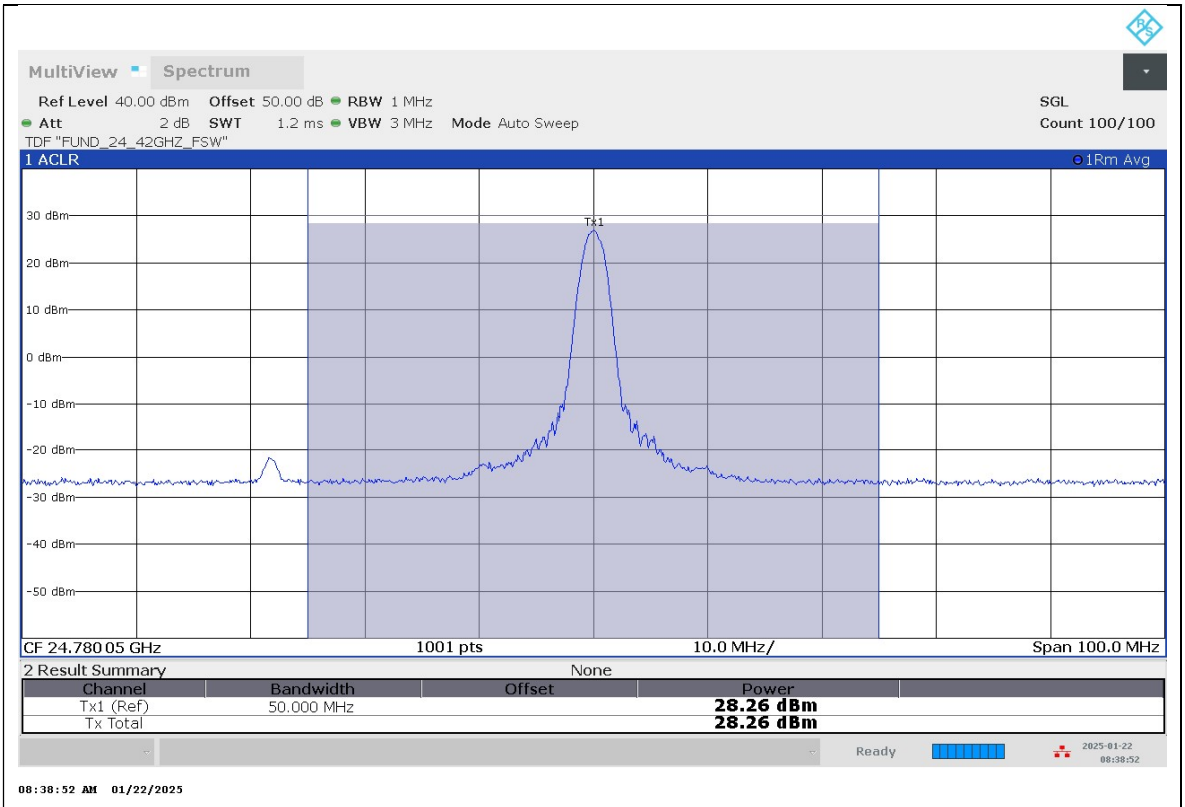
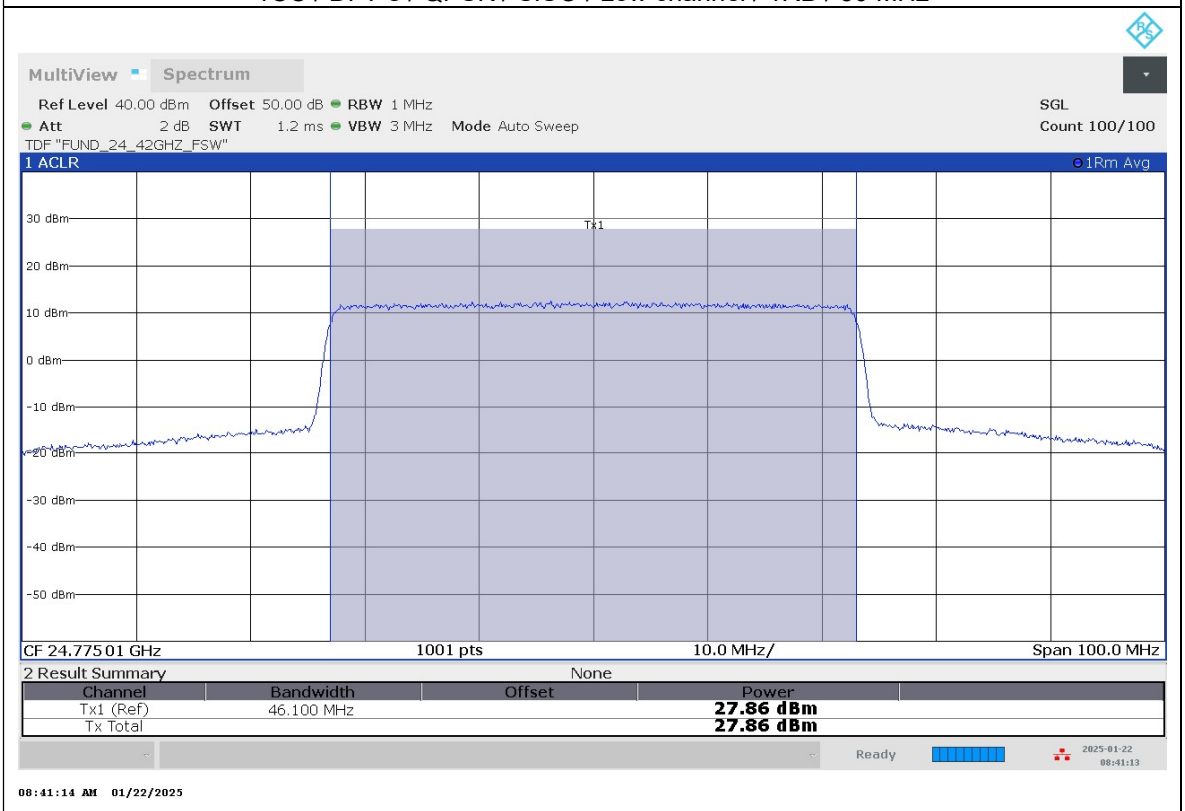


1CC / DFT-s / QPSK / SISO / Low channel / 1RB / 50 MHz



1CC / DFT-s / QPSK / SISO / Low channel / Full RB / 50 MHz

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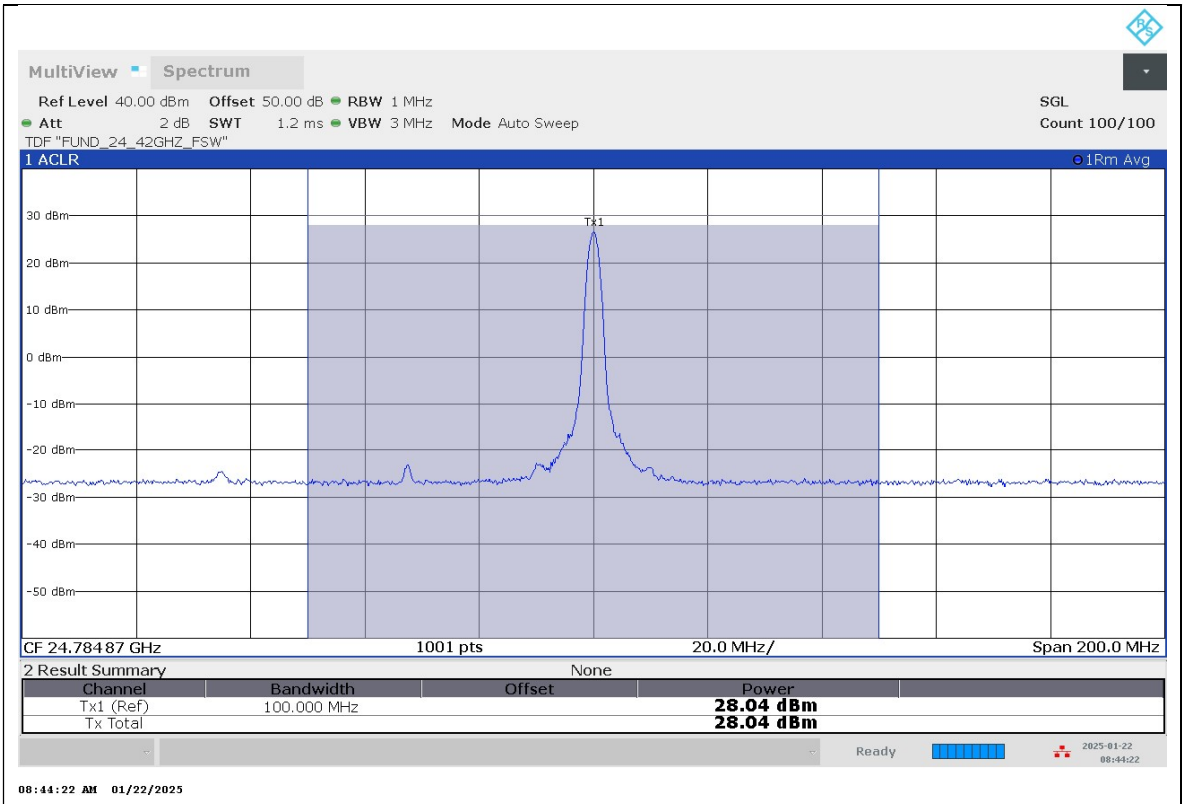
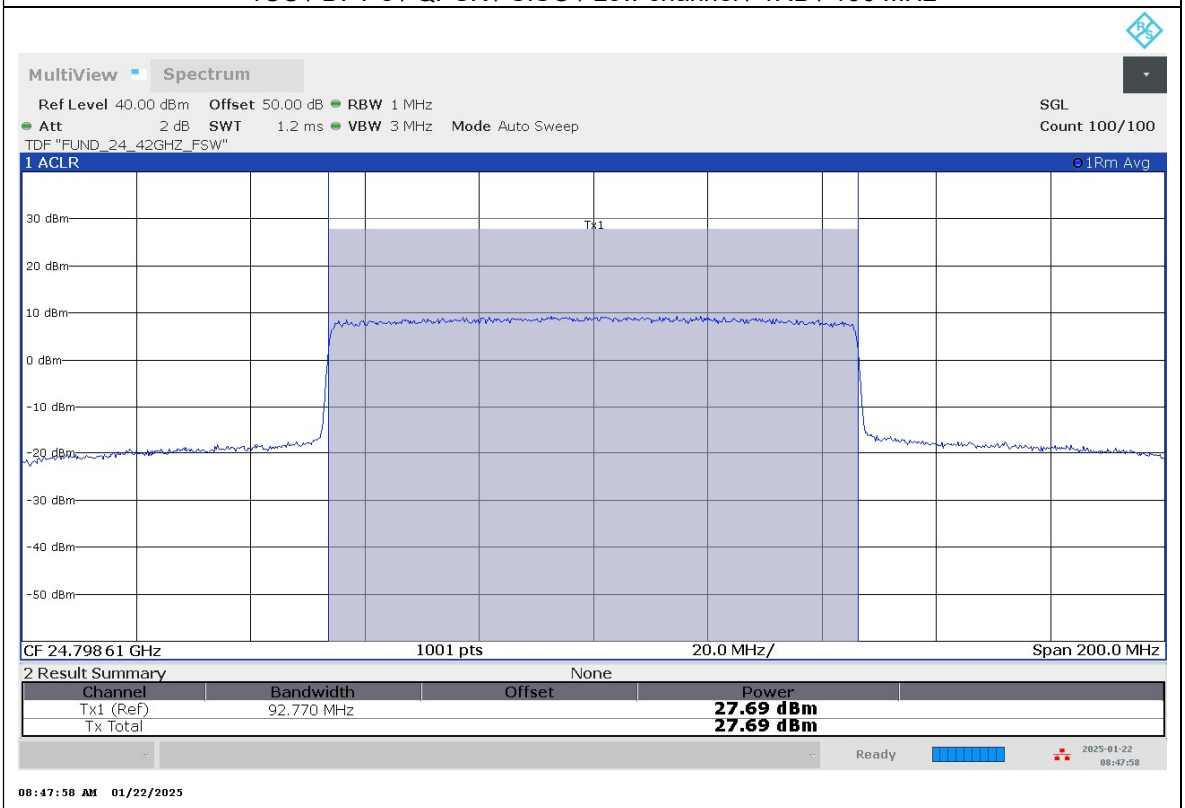


1CC / DFT-s / QPSK / SISO / Low channel / 1RB / 100 MHz



1CC / DFT-s / QPSK / SISO / Low channel / Full RB / 100 MHz

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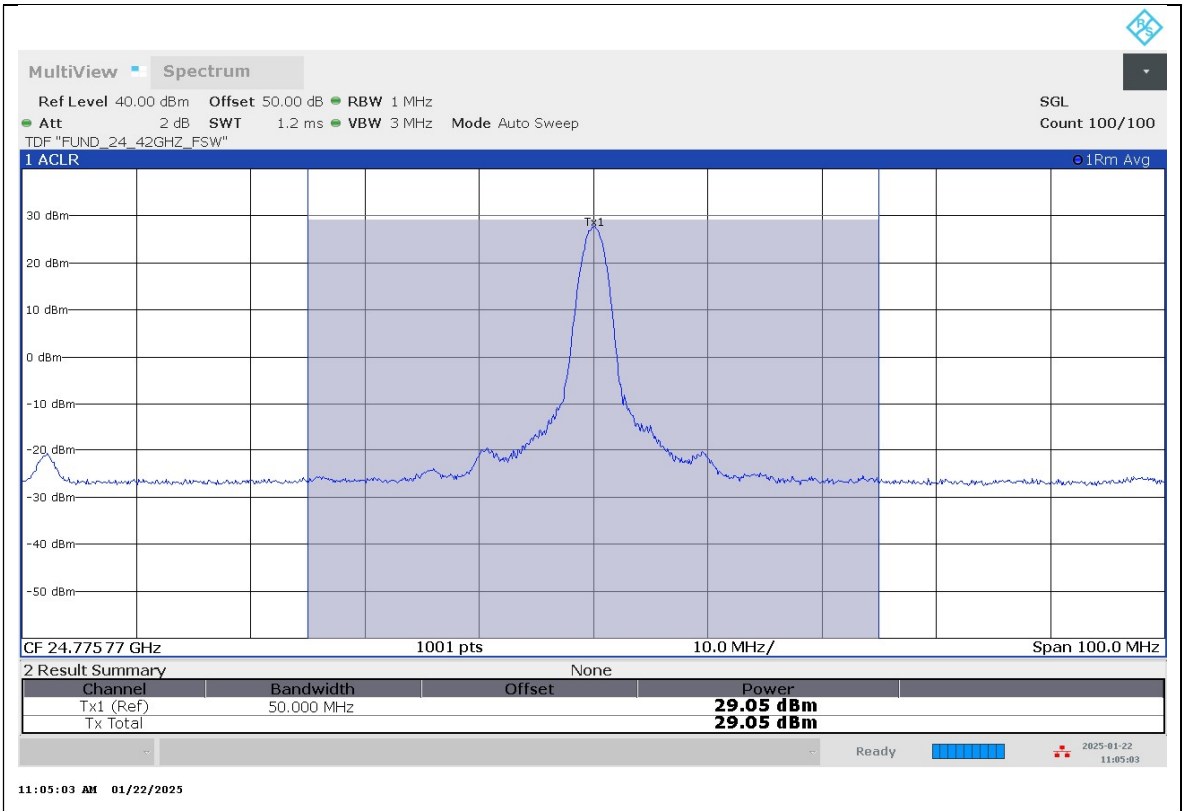
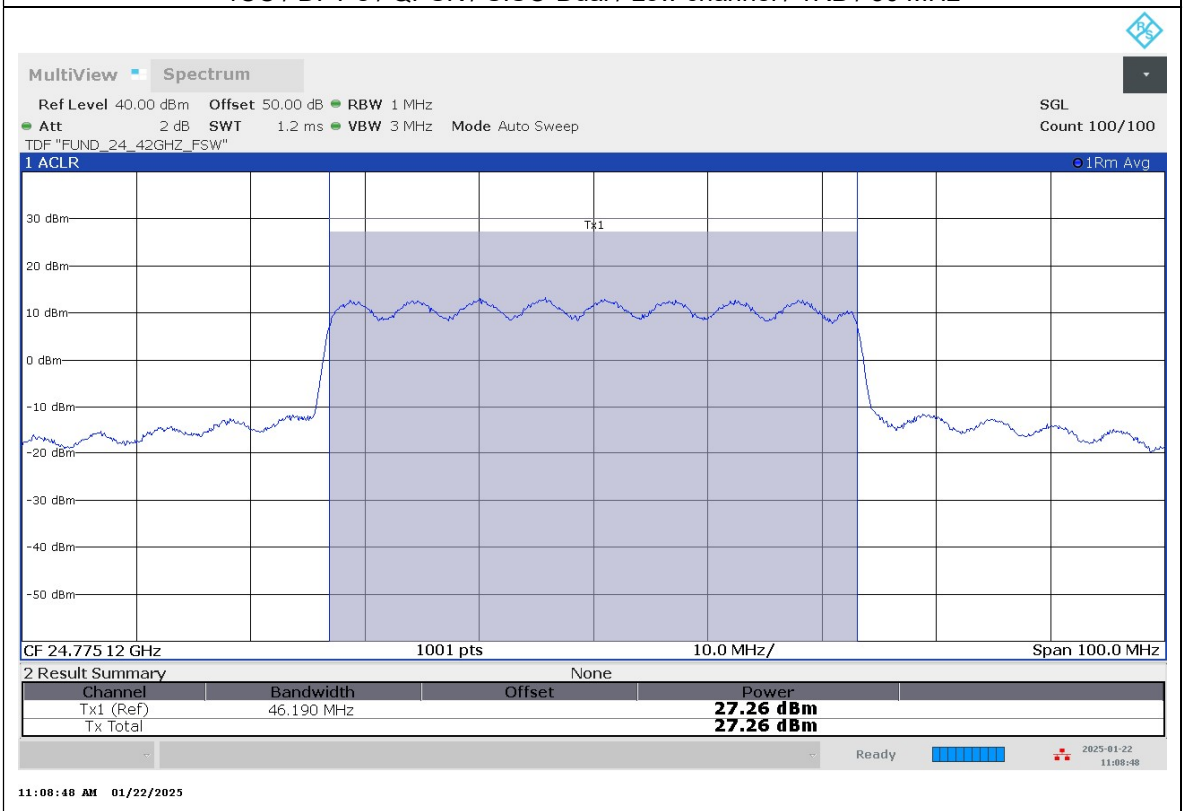


1CC / DFT-s / QPSK / SISO-Dual / Low channel / 1RB / 50 MHz



1CC / DFT-s / QPSK / SISO-Dual / Low channel / Full RB / 50 MHz

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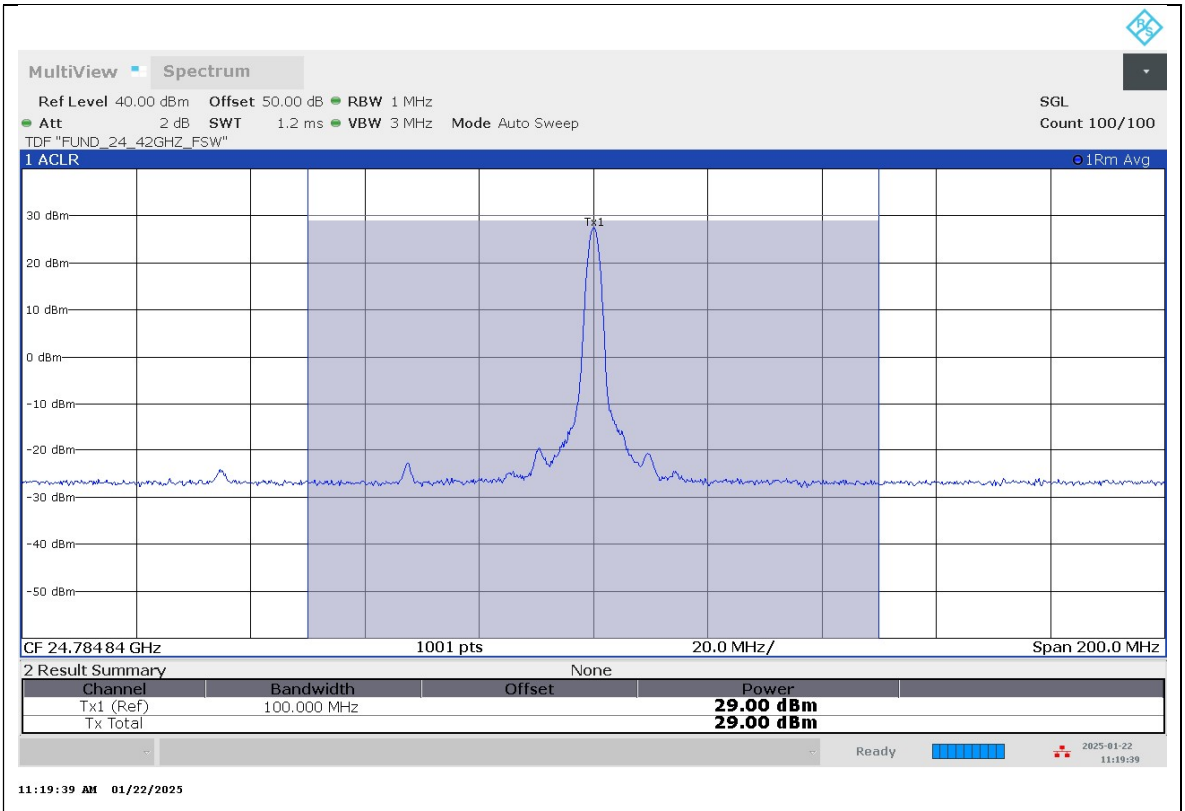
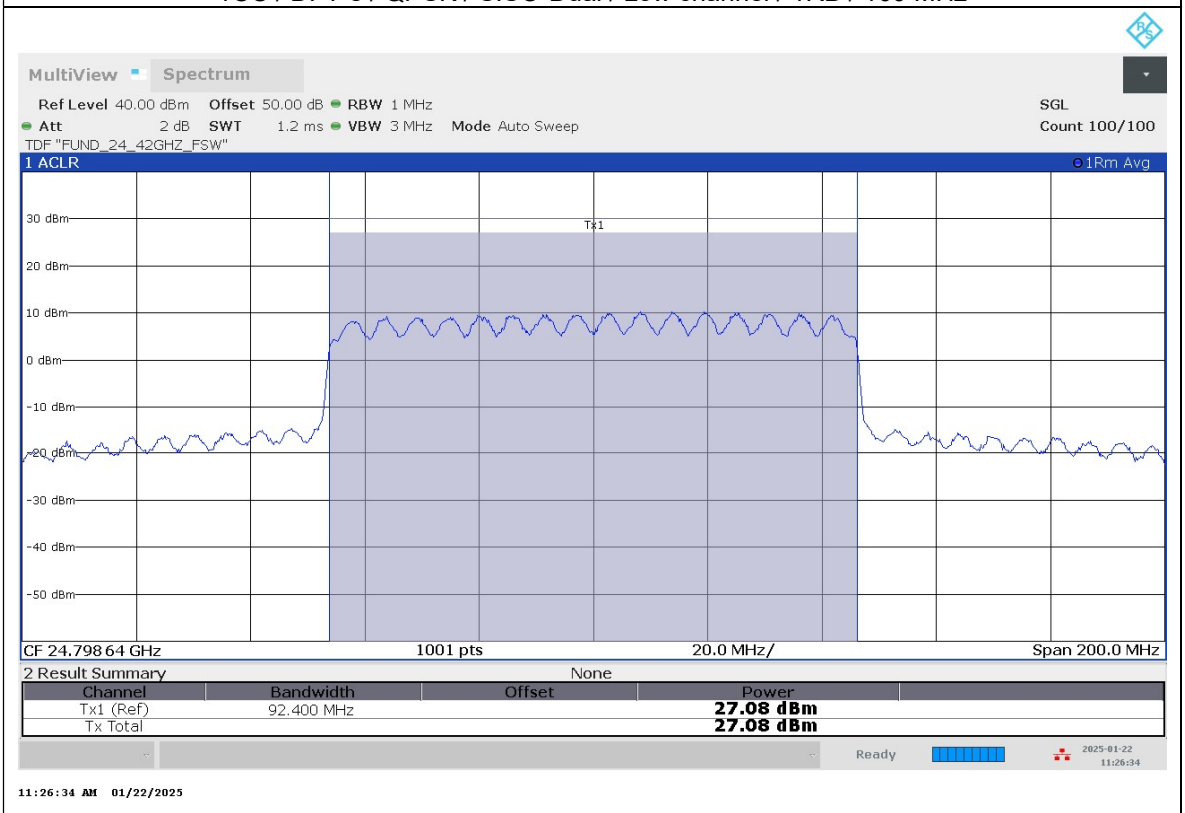


1CC / DFT-s / QPSK / SISO-Dual / Low channel / 1RB / 100 MHz



1CC / DFT-s / QPSK / SISO-Dual / Low channel / Full RB / 100 MHz

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Antenna 1 / Ant M / Band n261

Test Case	OFDM	NR Band	Antenna	BW(MHz)	CCs	Mod	Tx Type	Freq(MHz)	Beam ID	Beam Pol	Ant Pol	RB	Result(dBm)
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO	27525	270	H	V	1_11	**27.86**
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO	27925	270	H	V	1_16	27.84
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO	28325	270	H	V	1_11	27.47
EIRP	DFT-s	n261	Ant M	50	1CC	BPSK	SISO	27525	270	H	V	1_11	27.81
EIRP	DFT-s	n261	Ant M	50	1CC	16QAM	SISO	27525	270	H	V	1_11	27.26
EIRP	DFT-s	n261	Ant M	50	1CC	64QAM	SISO	27525	270	H	V	1_11	24.00
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO	27525	270	H	V	32_0	26.94
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO	27925	270	H	V	32_0	**26.96**
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO	28325	270	H	V	32_0	26.71
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO	27550	270	H	V	1_22	**27.97**
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO	27925	270	H	V	1_22	27.71
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO	28300	270	H	V	1_24	27.79
EIRP	DFT-s	n261	Ant M	100	1CC	BPSK	SISO	27550	270	H	V	1_22	27.75
EIRP	DFT-s	n261	Ant M	100	1CC	16QAM	SISO	27550	270	H	V	1_22	26.98
EIRP	DFT-s	n261	Ant M	100	1CC	64QAM	SISO	27550	270	H	V	1_22	23.98
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO	27550	270	H	H	64_0	26.79
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO	27925	270	H	H	64_0	**26.87**
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO	28300	270	H	H	64_0	26.74

Test Case	OFDM	NR Band	Antenna	BW(MHz)	CCs	Mod	Tx Type	Freq(MHz)	Beam ID	Beam Pol	RB	Result(dBm)
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO-Dual	27525	14+270	H+V	1_16	29.49
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO-Dual	27925	14+270	H+V	1_11	28.95
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO-Dual	28325	14+270	H+V	1_16	28.64
EIRP	DFT-s	n261	Ant M	50	1CC	BPSK	SISO-Dual	27525	14+270	H+V	1_16	**29.55**
EIRP	DFT-s	n261	Ant M	50	1CC	16QAM	SISO-Dual	27525	14+270	H+V	1_16	28.84
EIRP	DFT-s	n261	Ant M	50	1CC	64QAM	SISO-Dual	27525	14+270	H+V	1_16	25.66
EIRP	CP	n261	Ant M	50	1CC	QPSK	MIMO	27525	14+270	H+V	1_16	27.60
EIRP	CP	n261	Ant M	50	1CC	16QAM	MIMO	27525	14+270	H+V	1_16	26.49
EIRP	CP	n261	Ant M	50	1CC	64QAM	MIMO	27525	14+270	H+V	1_16	22.14
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO-Dual	27525	14+270	H+V	32_0	**27.00**
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO-Dual	27925	14+270	H+V	32_0	26.54
EIRP	DFT-s	n261	Ant M	50	1CC	QPSK	SISO-Dual	28325	14+270	H+V	32_0	25.99
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO-Dual	27550	14+270	H+V	1_33	29.41
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO-Dual	27925	14+270	H+V	1_24	28.85
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO-Dual	28300	14+270	H+V	1_33	28.73
EIRP	DFT-s	n261	Ant M	100	1CC	BPSK	SISO-Dual	27550	14+270	H+V	1_33	**29.49**
EIRP	DFT-s	n261	Ant M	100	1CC	16QAM	SISO-Dual	27550	14+270	H+V	1_33	29.11
EIRP	DFT-s	n261	Ant M	100	1CC	64QAM	SISO-Dual	27550	14+270	H+V	1_33	25.66
EIRP	CP	n261	Ant M	100	1CC	QPSK	MIMO	27550	14+270	H+V	1_33	27.74
EIRP	CP	n261	Ant M	100	1CC	16QAM	MIMO	27550	14+270	H+V	1_33	26.63
EIRP	CP	n261	Ant M	100	1CC	64QAM	MIMO	27550	14+270	H+V	1_33	22.38
EIRP	DFT-s	n261	Ant M	100+100	2CC	QPSK	SISO-Dual	27550	14+270	H+V	1_33	22.28
EIRP	DFT-s	n261	Ant M	100+100	2CC	BPSK	SISO-Dual	27550	14+270	H+V	1_33	22.07
EIRP	DFT-s	n261	Ant M	100+100	2CC	16QAM	SISO-Dual	27550	14+270	H+V	1_33	21.83
EIRP	DFT-s	n261	Ant M	100+100	2CC	64QAM	SISO-Dual	27550	14+270	H+V	1_33	21.77
EIRP	DFT-s	n261	Ant M	100+100+100	3CC	QPSK	SISO-Dual	27550	14+270	H+V	1_33	22.22
EIRP	DFT-s	n261	Ant M	100+100+100	3CC	BPSK	SISO-Dual	27550	14+270	H+V	1_33	22.06
EIRP	DFT-s	n261	Ant M	100+100+100	3CC	16QAM	SISO-Dual	27550	14+270	H+V	1_33	21.95
EIRP	DFT-s	n261	Ant M	100+100+100	3CC	64QAM	SISO-Dual	27550	14+270	H+V	1_33	21.91
EIRP	DFT-s	n261	Ant M	100+100+100+100	4CC	QPSK	SISO-Dual	27550	14+270	H+V	1_33	22.33
EIRP	DFT-s	n261	Ant M	100+100+100+100	4CC	BPSK	SISO-Dual	27550	14+270	H+V	1_33	22.27
EIRP	DFT-s	n261	Ant M	100+100+100+100	4CC	16QAM	SISO-Dual	27550	14+270	H+V	1_33	22.14
EIRP	DFT-s	n261	Ant M	100+100+100+100	4CC	64QAM	SISO-Dual	27550	14+270	H+V	1_33	22.12
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO-Dual	27550	14+270	H+V	64_0	**26.73**
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO-Dual	27925	14+270	H+V	64_0	26.41
EIRP	DFT-s	n261	Ant M	100	1CC	QPSK	SISO-Dual	28300	14+270	H+V	64_0	26.36
EIRP	DFT-s	n261	Ant M	100+100	2CC	QPSK	SISO-Dual	27550	14+270	H+V	64_0	26.61
EIRP	DFT-s	n261	Ant M	100+100	2CC	BPSK	SISO-Dual	27550	14+270	H+V	64_0	26.56
EIRP	DFT-s	n261	Ant M	100+100	2CC	16QAM	SISO-Dual	27550	14+270	H+V	64_0	26.04
EIRP	DFT-s	n261	Ant M	100+100	2CC	64QAM	SISO-Dual	27550	14+270	H+V	64_0	22.45
EIRP	DFT-s	n261	Ant M	100+100+100	3CC	QPSK	SISO-Dual	27550	14+270	H+V	64_0	24.20
EIRP	DFT-s	n261	Ant M	100+100+100	3CC	BPSK	SISO-Dual	27550	14+270	H+V	64_0	24.19
EIRP	DFT-s	n261	Ant M	100+100+100	3CC	16QAM	SISO-Dual	27550	14+270	H+V	64_0	23.13
EIRP	DFT-s	n261	Ant M	100+100+100	3CC	64QAM	SISO-Dual	27550	14+270	H+V	64_0	21.14
EIRP	DFT-s	n261	Ant M	100+100+100+100	4CC	QPSK	SISO-Dual	27550	14+270	H+V	64_0	24.28
EIRP	DFT-s	n261	Ant M	100+100+100+100	4CC	BPSK	SISO-Dual	27550	14+270	H+V	64_0	24.35
EIRP	DFT-s	n261	Ant M	100+100+100+100	4CC	16QAM	SISO-Dual	27550	14+270	H+V	64_0	23.30
EIRP	DFT-s	n261	Ant M	100+100+100+100	4CC	64QAM	SISO-Dual	27550	14+270	H+V	64_0	21.20

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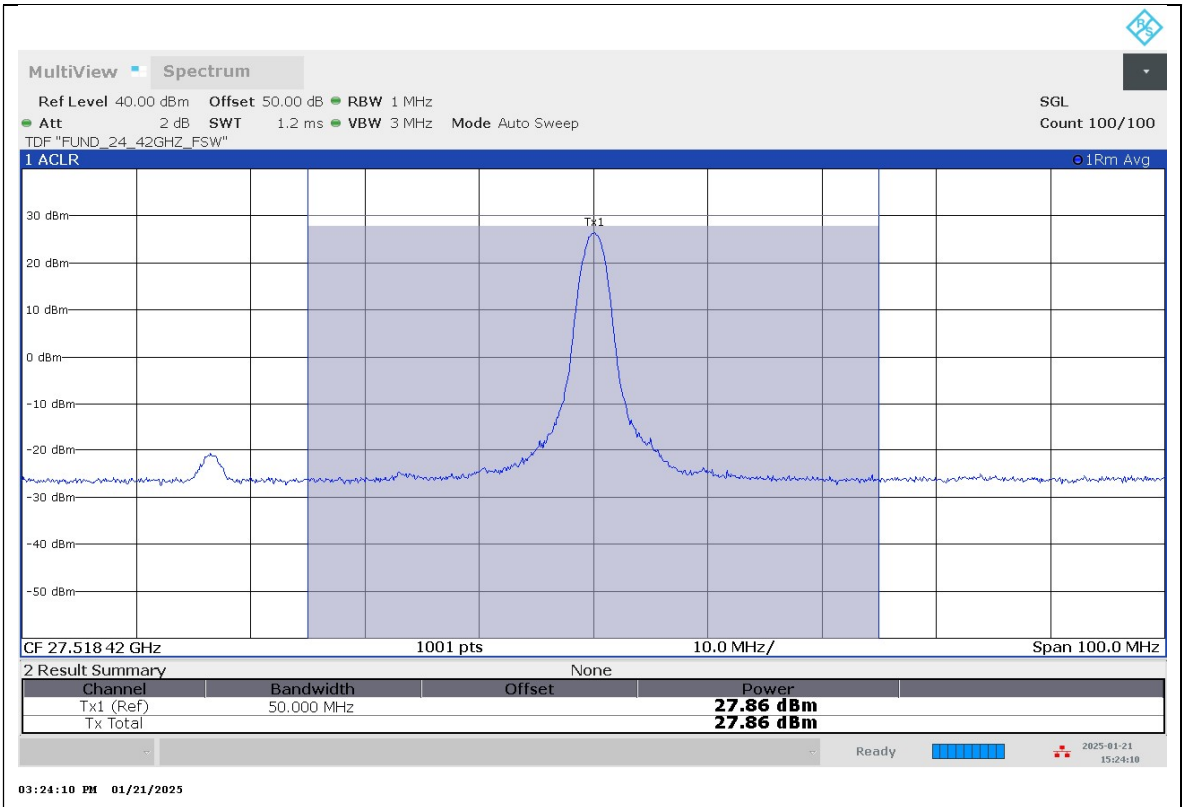
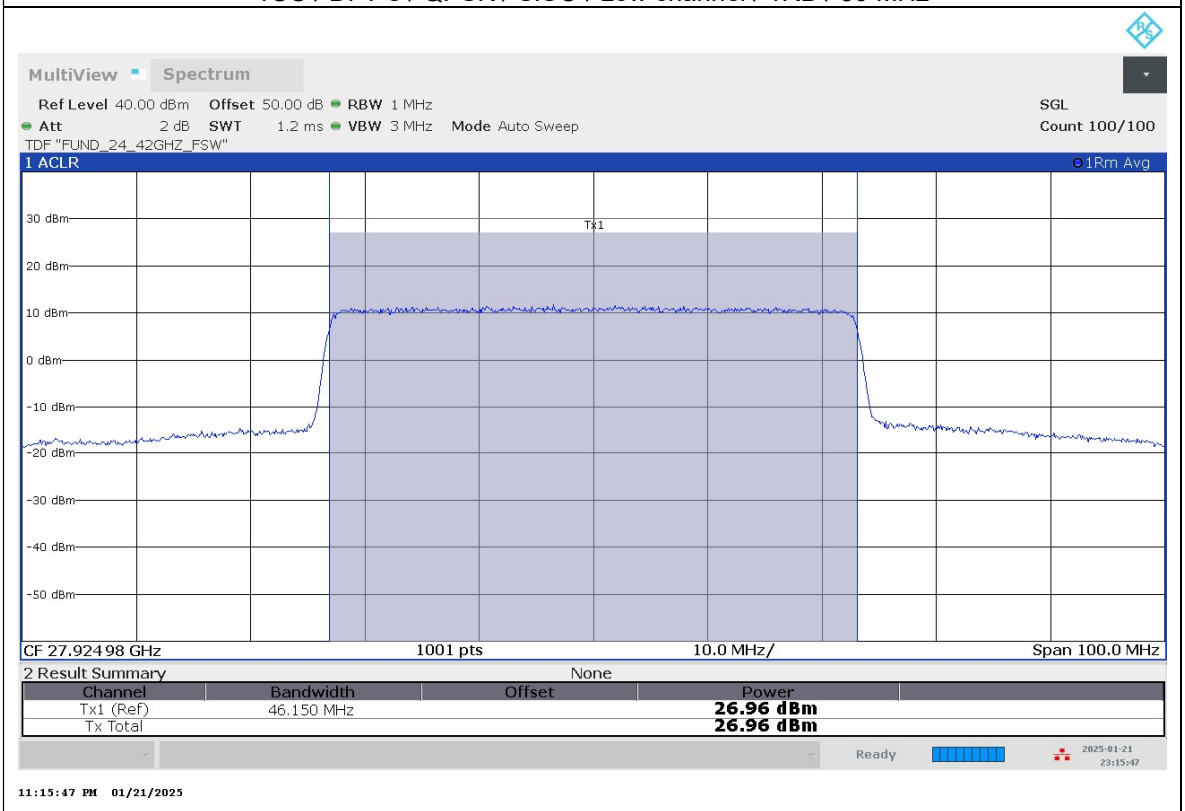


1CC / DFT-s / QPSK / SISO / Low channel / 1RB / 50 MHz



1CC / DFT-s / QPSK / SISO / Mid channel / Full RB / 50 MHz

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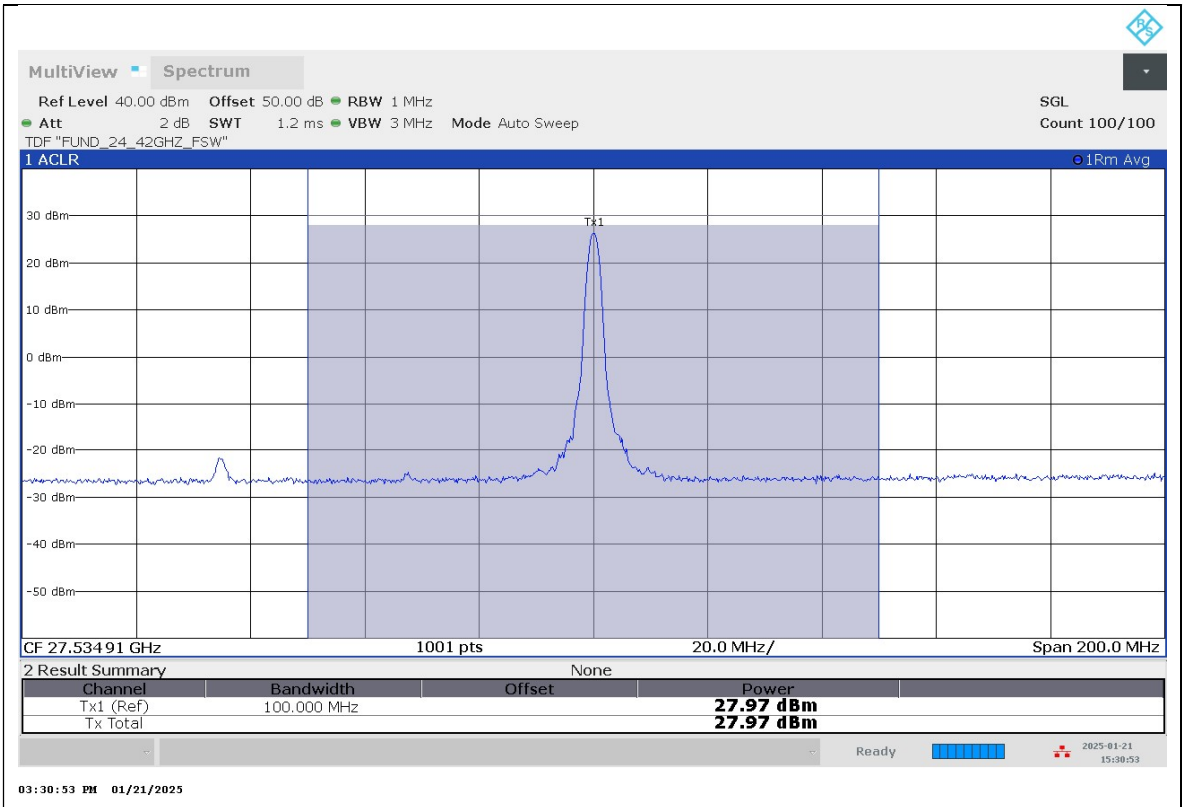
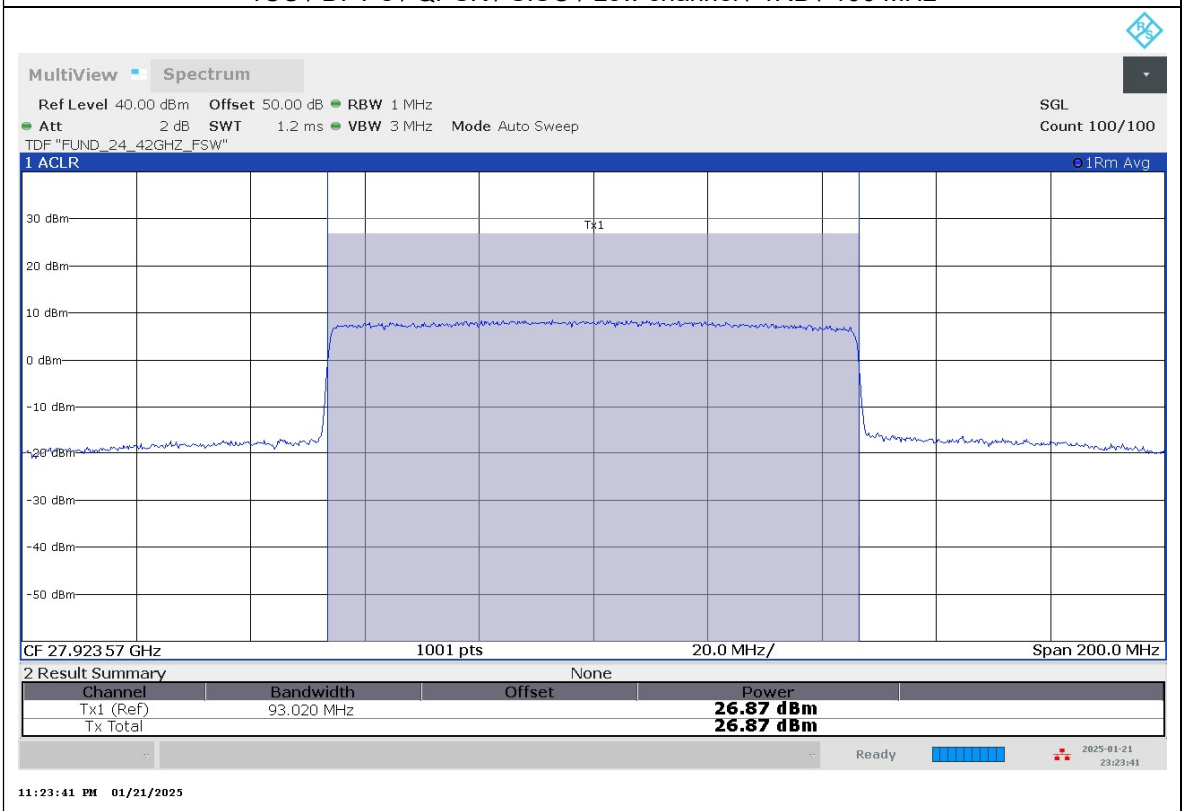


1CC / DFT-s / QPSK / SISO / Low channel / 1RB / 100 MHz



1CC / DFT-s / QPSK / SISO / Mid channel / Full RB / 100 MHz

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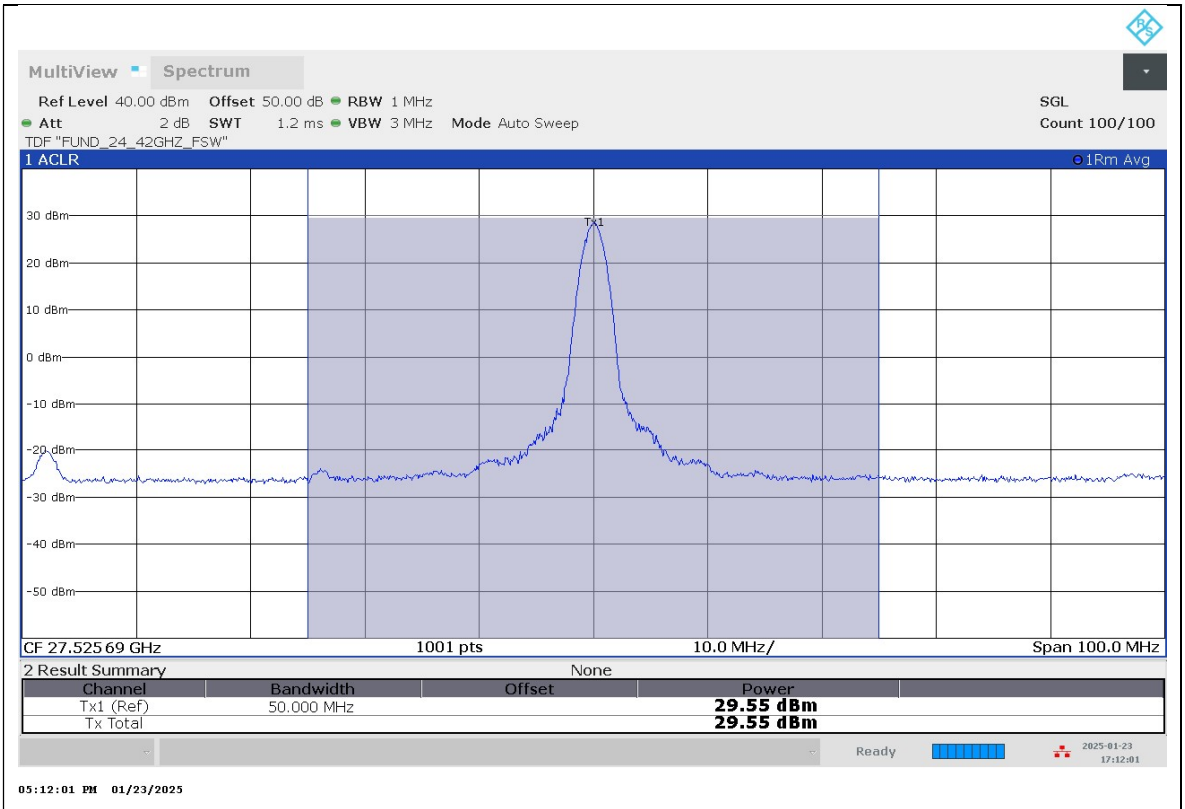
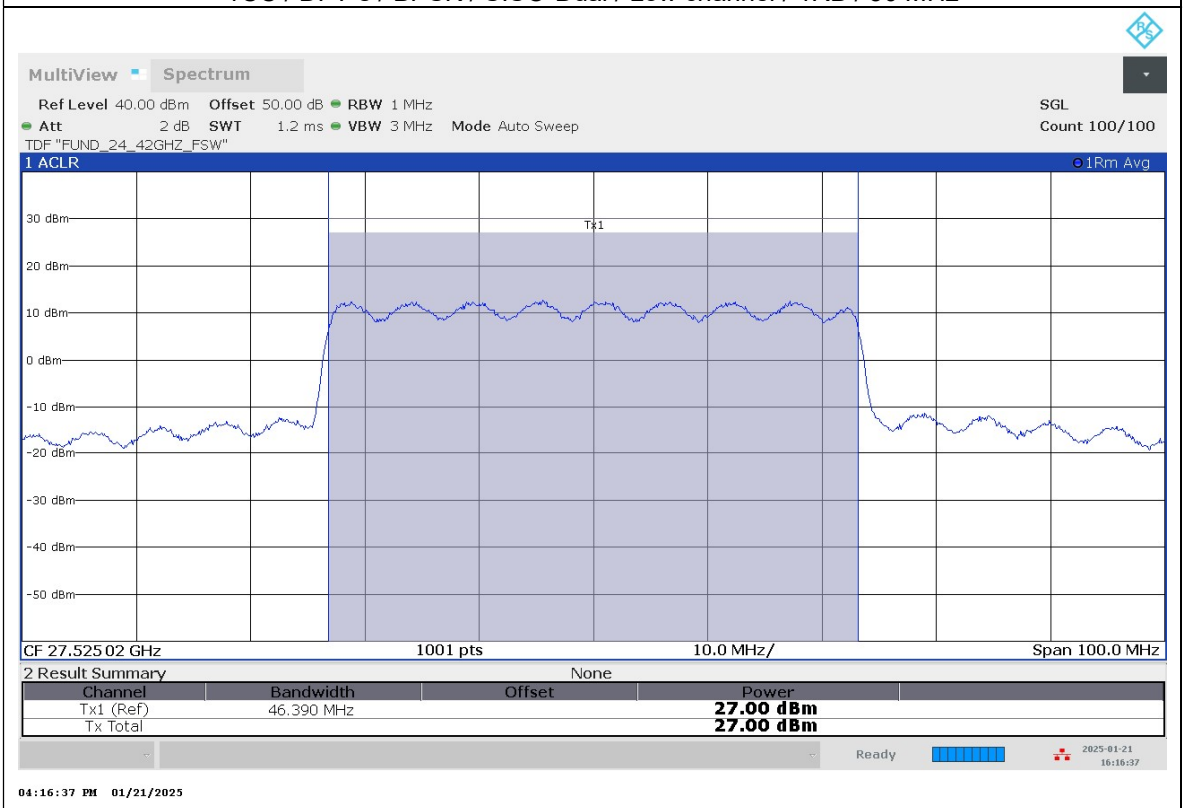


1CC / DFT-s / BPSK / SISO-Dual / Low channel / 1RB / 50 MHz



1CC / DFT-s / QPSK / SISO-Dual / Low channel / Full RB / 50 MHz

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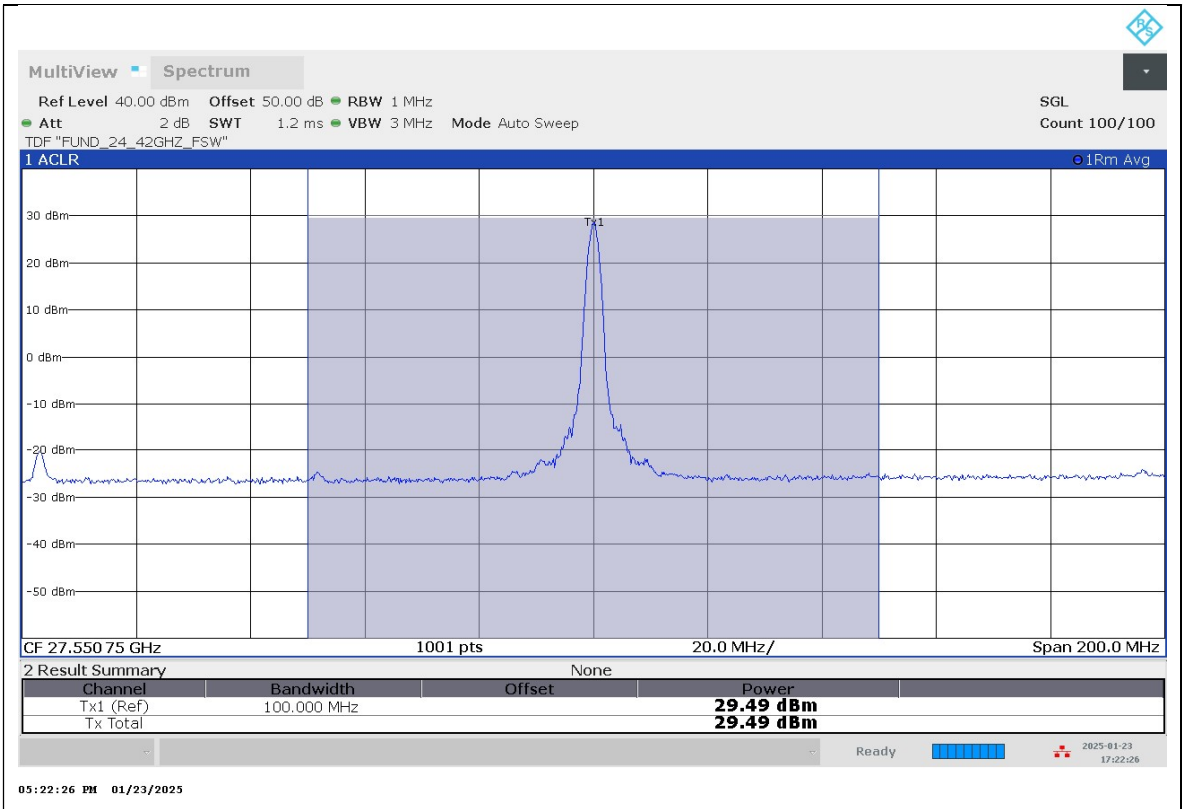
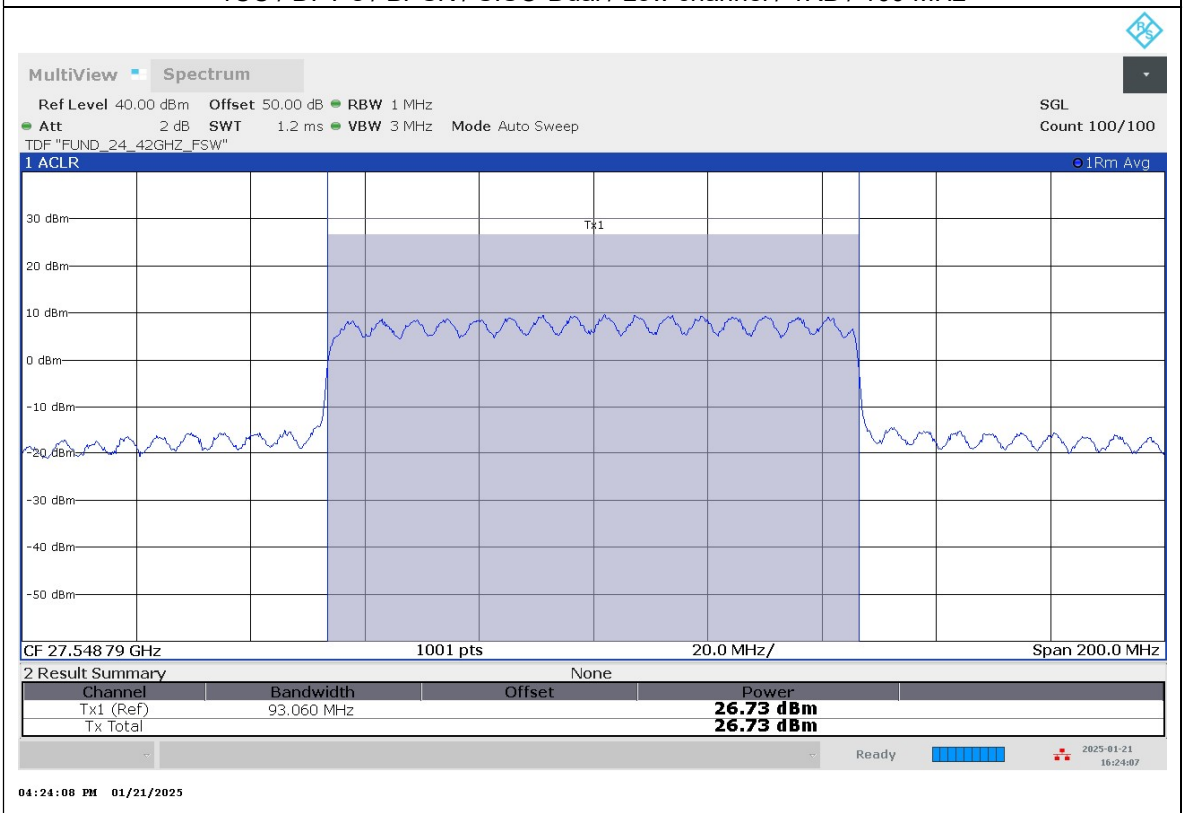


1CC / DFT-s / BPSK / SISO-Dual / Low channel / 1RB / 100 MHz



1CC / DFT-s / QPSK / SISO-Dual / Low channel / Full RB / 100 MHz

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Antenna 1 / Ant M / Band n260

Test Case	OFDM	NR Band	Antenna	BW(MHz)	CCs	Mod	Tx Type	Freq(MHz)	Beam ID	Beam Pol	Ant Pol	RB	Result(dBm)
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO	37025	271	V	H	1_16	29.40
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO	38500	271	V	H	1_16	**29.44**
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO	39975	271	V	V	1_16	28.67
EIRP	DFT-s	n260	Ant M	50	1CC	BPSK	SISO	38500	271	V	H	1_16	29.04
EIRP	DFT-s	n260	Ant M	50	1CC	16QAM	SISO	38500	271	V	H	1_16	28.96
EIRP	DFT-s	n260	Ant M	50	1CC	64QAM	SISO	38500	271	V	H	1_16	26.06
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO	37025	271	V	H	32_0	29.05
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO	38500	271	V	H	32_0	**29.07**
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO	39975	271	V	V	32_0	28.02
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO	37050	271	V	H	1_22	**29.43**
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO	38500	271	V	H	1_43	29.41
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO	39950	271	V	H	1_33	29.27
EIRP	DFT-s	n260	Ant M	100	1CC	BPSK	SISO	37050	271	V	V	1_22	29.25
EIRP	DFT-s	n260	Ant M	100	1CC	16QAM	SISO	37050	271	V	V	1_22	29.09
EIRP	DFT-s	n260	Ant M	100	1CC	64QAM	SISO	37050	271	V	V	1_22	26.08
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO	37050	271	V	H	64_0	29.00
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO	38500	271	V	H	64_0	**29.17**
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO	39950	271	V	H	64_0	28.56

Test Case	OFDM	NR Band	Antenna	BW(MHz)	CCs	Mod	Tx Type	Freq(MHz)	Beam ID	Beam Pol	RB	Result(dBm)
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO-Dual	37025	15+271	H+V	1_16	28.85
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO-Dual	38500	15+271	H+V	1_16	**29.94**
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO-Dual	39975	15+271	H+V	1_19	29.73
EIRP	DFT-s	n260	Ant M	50	1CC	BPSK	SISO-Dual	38500	15+271	H+V	1_16	29.87
EIRP	DFT-s	n260	Ant M	50	1CC	16QAM	SISO-Dual	38500	15+271	H+V	1_16	29.75
EIRP	DFT-s	n260	Ant M	50	1CC	64QAM	SISO-Dual	38500	15+271	H+V	1_16	26.42
EIRP	CP	n260	Ant M	50	1CC	QPSK	MIMO	38500	15+271	H+V	1_16	29.03
EIRP	CP	n260	Ant M	50	1CC	16QAM	MIMO	38500	15+271	H+V	1_16	27.85
EIRP	CP	n260	Ant M	50	1CC	64QAM	MIMO	38500	15+271	H+V	1_16	23.81
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO-Dual	37025	15+271	H+V	32_0	28.87
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO-Dual	38500	15+271	H+V	32_0	**29.09**
EIRP	DFT-s	n260	Ant M	50	1CC	QPSK	SISO-Dual	39975	15+271	H+V	32_0	27.45
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO-Dual	37050	15+271	H+V	1_22	31.09
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO-Dual	38500	15+271	H+V	1_22	**31.61**
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO-Dual	39950	15+271	H+V	1_33	29.27
EIRP	DFT-s	n260	Ant M	100	1CC	BPSK	SISO-Dual	38500	15+271	H+V	1_22	31.44
EIRP	DFT-s	n260	Ant M	100	1CC	16QAM	SISO-Dual	38500	15+271	H+V	1_22	31.28
EIRP	DFT-s	n260	Ant M	100	1CC	64QAM	SISO-Dual	38500	15+271	H+V	1_22	28.24
EIRP	CP	n260	Ant M	100	1CC	QPSK	MIMO	38500	15+271	H+V	1_22	30.72
EIRP	CP	n260	Ant M	100	1CC	16QAM	MIMO	38500	15+271	H+V	1_22	29.65
EIRP	CP	n260	Ant M	100	1CC	64QAM	MIMO	38500	15+271	H+V	1_22	25.36
EIRP	DFT-s	n260	Ant M	100+100	2CC	QPSK	SISO-Dual	38500	15+271	H+V	1_22	24.70
EIRP	DFT-s	n260	Ant M	100+100	2CC	BPSK	SISO-Dual	38500	15+271	H+V	1_22	24.69
EIRP	DFT-s	n260	Ant M	100+100	2CC	16QAM	SISO-Dual	38500	15+271	H+V	1_22	24.52
EIRP	DFT-s	n260	Ant M	100+100	2CC	64QAM	SISO-Dual	38500	15+271	H+V	1_22	24.43
EIRP	DFT-s	n260	Ant M	100+100+100	3CC	QPSK	SISO-Dual	38500	15+271	H+V	1_22	22.44
EIRP	DFT-s	n260	Ant M	100+100+100	3CC	BPSK	SISO-Dual	38500	15+271	H+V	1_22	22.34
EIRP	DFT-s	n260	Ant M	100+100+100	3CC	16QAM	SISO-Dual	38500	15+271	H+V	1_22	22.37
EIRP	DFT-s	n260	Ant M	100+100+100	3CC	64QAM	SISO-Dual	38500	15+271	H+V	1_22	22.25
EIRP	DFT-s	n260	Ant M	100+100+100+100	4CC	QPSK	SISO-Dual	38500	15+271	H+V	1_22	24.94
EIRP	DFT-s	n260	Ant M	100+100+100+100	4CC	BPSK	SISO-Dual	38500	15+271	H+V	1_22	24.92
EIRP	DFT-s	n260	Ant M	100+100+100+100	4CC	16QAM	SISO-Dual	38500	15+271	H+V	1_22	24.84
EIRP	DFT-s	n260	Ant M	100+100+100+100	4CC	64QAM	SISO-Dual	38500	15+271	H+V	1_22	24.76
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO-Dual	37050	15+271	H+V	64_0	28.94
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO-Dual	38500	15+271	H+V	64_0	**29.06**
EIRP	DFT-s	n260	Ant M	100	1CC	QPSK	SISO-Dual	39950	15+271	H+V	64_0	27.72
EIRP	DFT-s	n260	Ant M	100+100	2CC	QPSK	SISO-Dual	38500	15+271	H+V	64_0	28.55
EIRP	DFT-s	n260	Ant M	100+100	2CC	BPSK	SISO-Dual	38500	15+271	H+V	64_0	28.56
EIRP	DFT-s	n260	Ant M	100+100	2CC	16QAM	SISO-Dual	38500	15+271	H+V	64_0	28.05
EIRP	DFT-s	n260	Ant M	100+100	2CC	64QAM	SISO-Dual	38500	15+271	H+V	64_0	24.58
EIRP	DFT-s	n260	Ant M	100+100+100	3CC	QPSK	SISO-Dual	38500	15+271	H+V	64_0	25.76
EIRP	DFT-s	n260	Ant M	100+100+100	3CC	BPSK	SISO-Dual	38500	15+271	H+V	64_0	25.76
EIRP	DFT-s	n260	Ant M	100+100+100	3CC	16QAM	SISO-Dual	38500	15+271	H+V	64_0	24.75
EIRP	DFT-s	n260	Ant M	100+100+100	3CC	64QAM	SISO-Dual	38500	15+271	H+V	64_0	22.81
EIRP	DFT-s	n260	Ant M	100+100+100+100	4CC	QPSK	SISO-Dual	38500	15+271	H+V	64_0	26.41
EIRP	DFT-s	n260	Ant M	100+100+100+100	4CC	BPSK	SISO-Dual	38500	15+271	H+V	64_0	26.43
EIRP	DFT-s	n260	Ant M	100+100+100+100	4CC	16QAM	SISO-Dual	38500	15+271	H+V	64_0	25.46
EIRP	DFT-s	n260	Ant M	100+100+100+100	4CC	64QAM	SISO-Dual	38500	15+271	H+V	64_0	23.49

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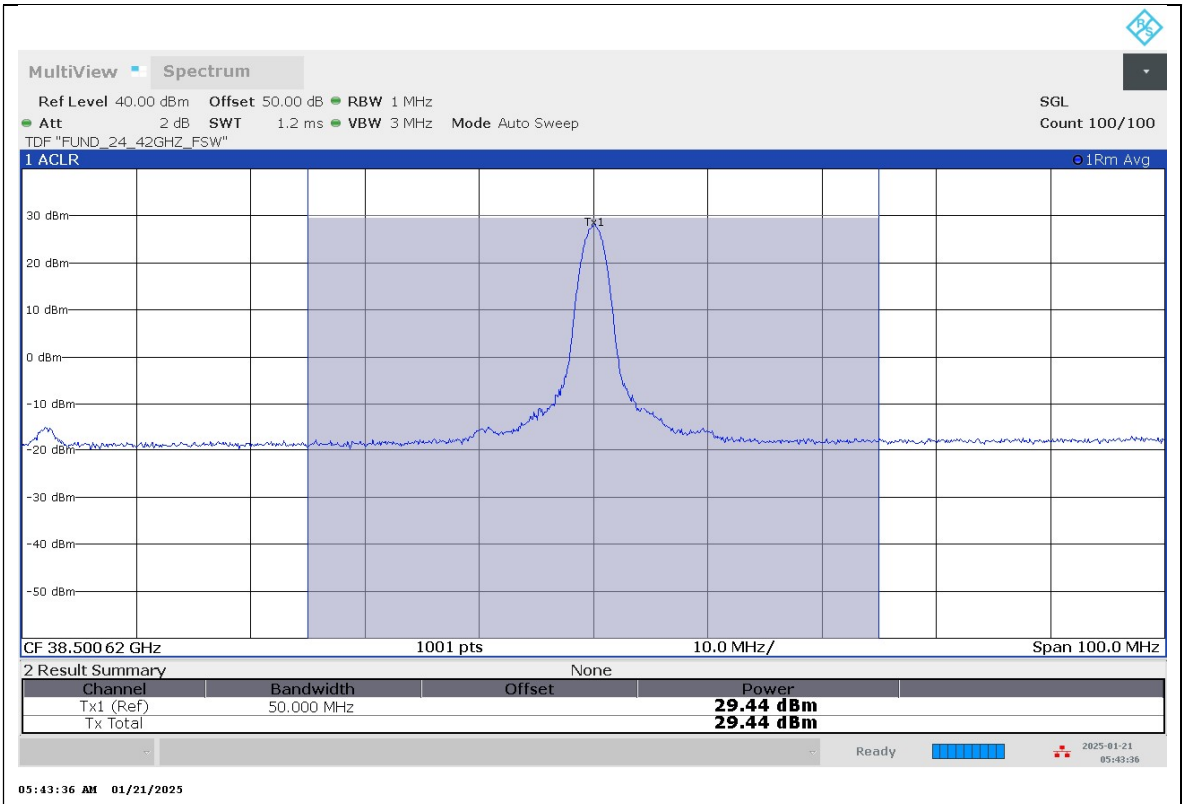
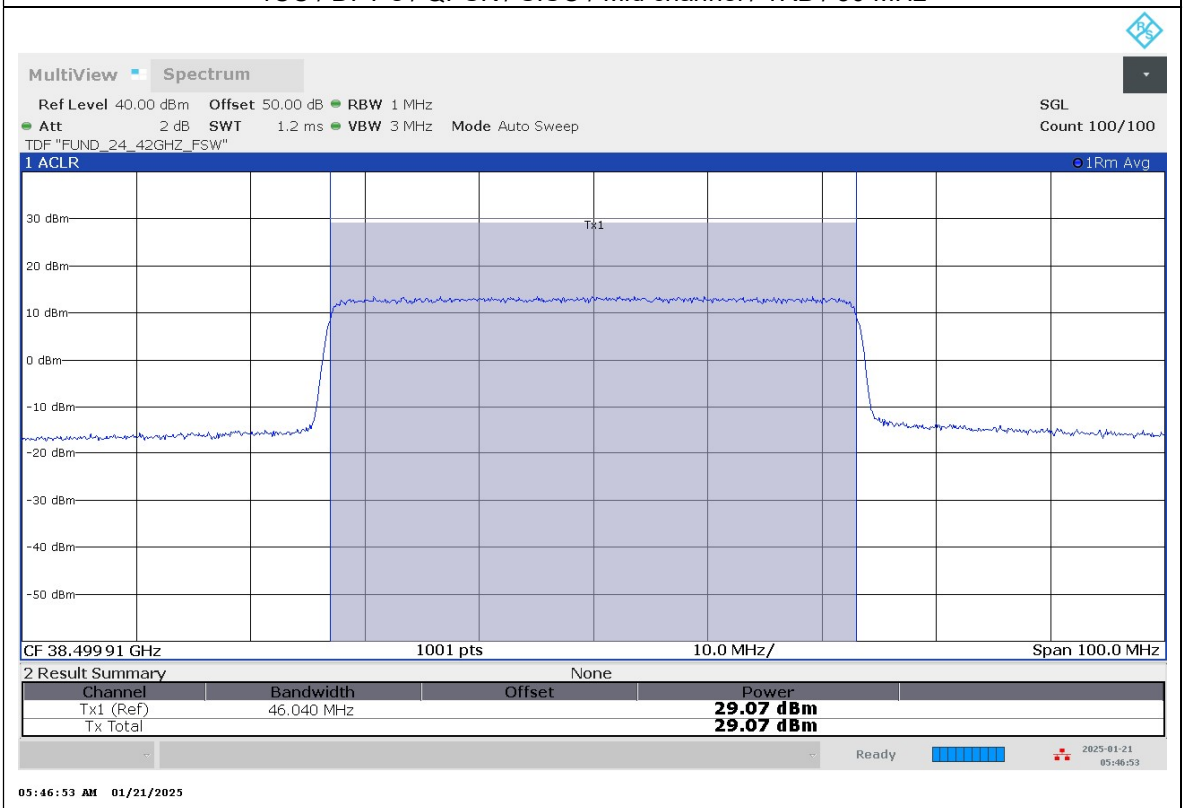


1CC / DFT-s / QPSK / SISO / Mid channel / 1RB / 50 MHz



1CC / DFT-s / QPSK / SISO / Mid channel / Full RB / 50 MHz

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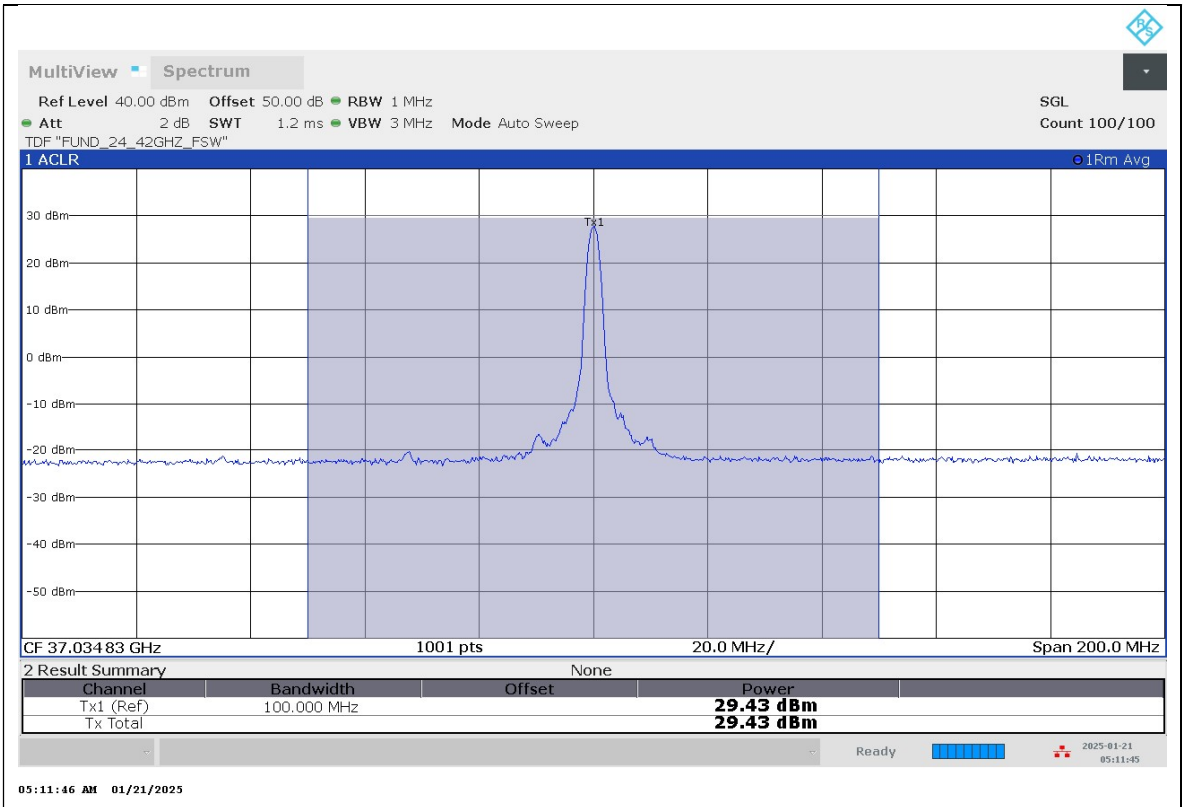

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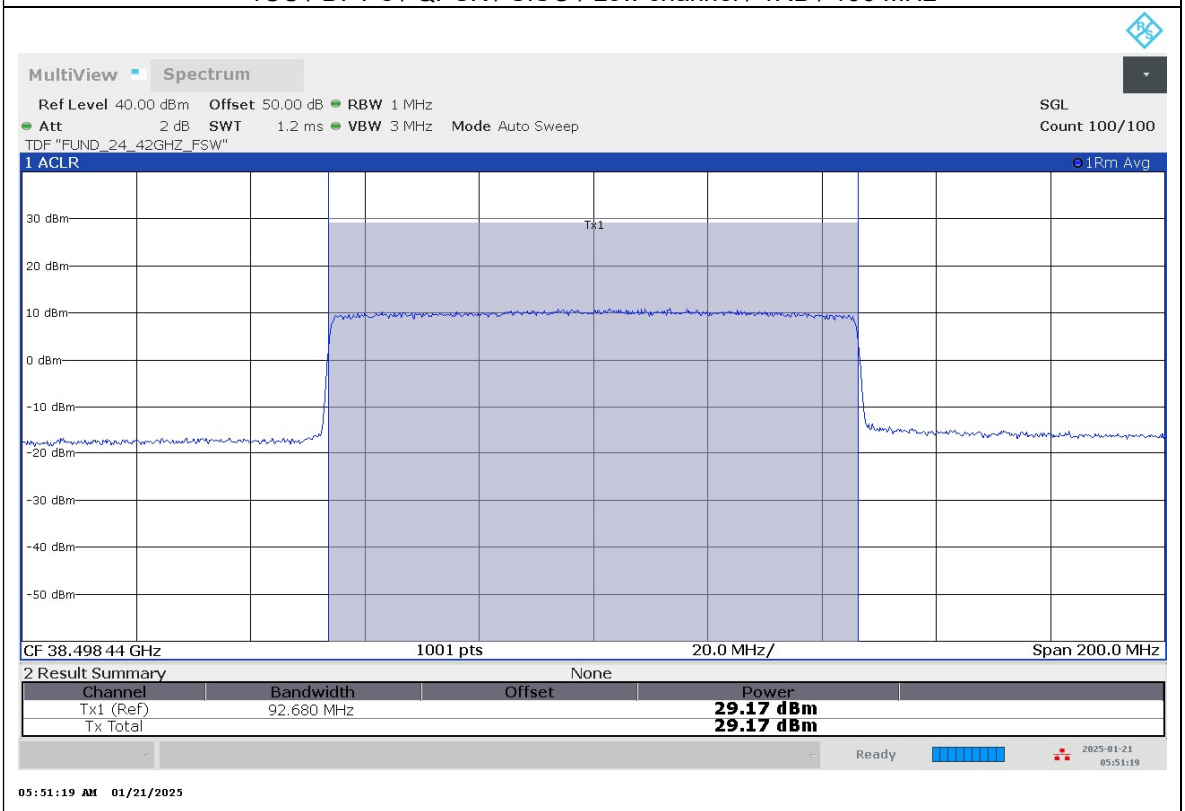

1CC / DFT-s / QPSK / SISO / Mid channel / Full RB / 100 MHz

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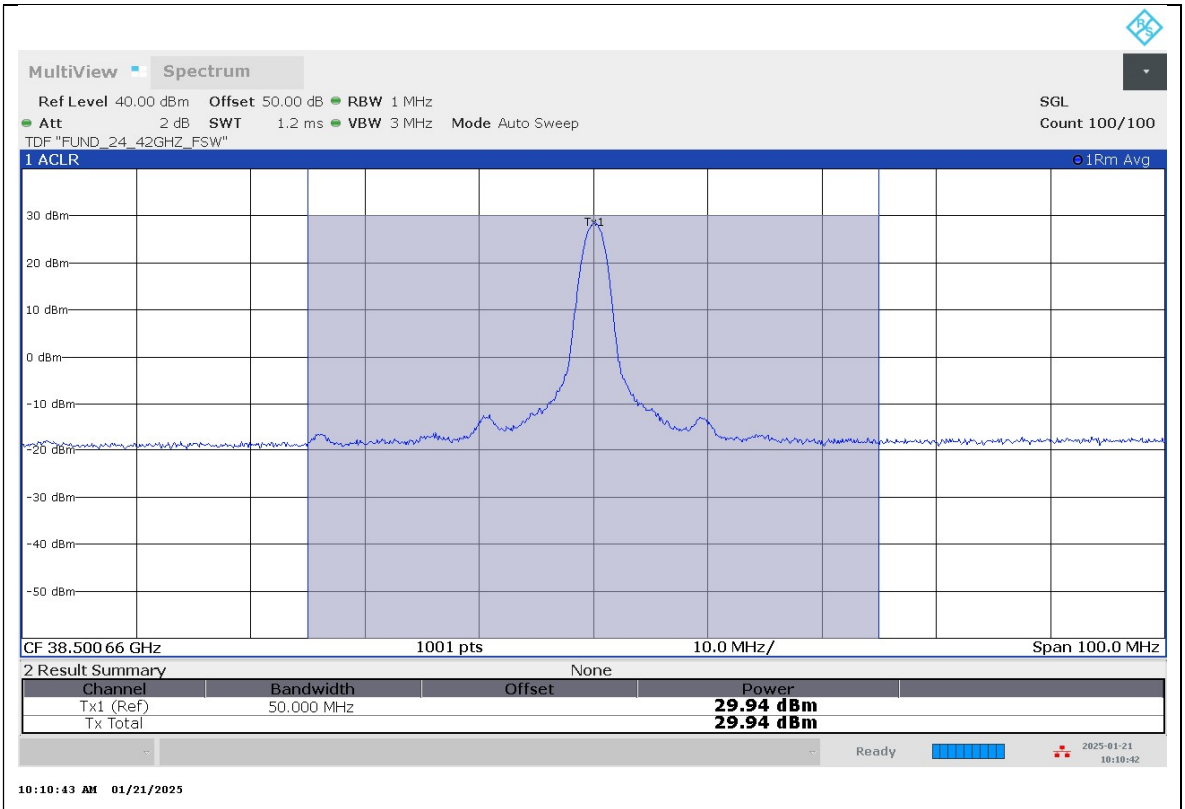
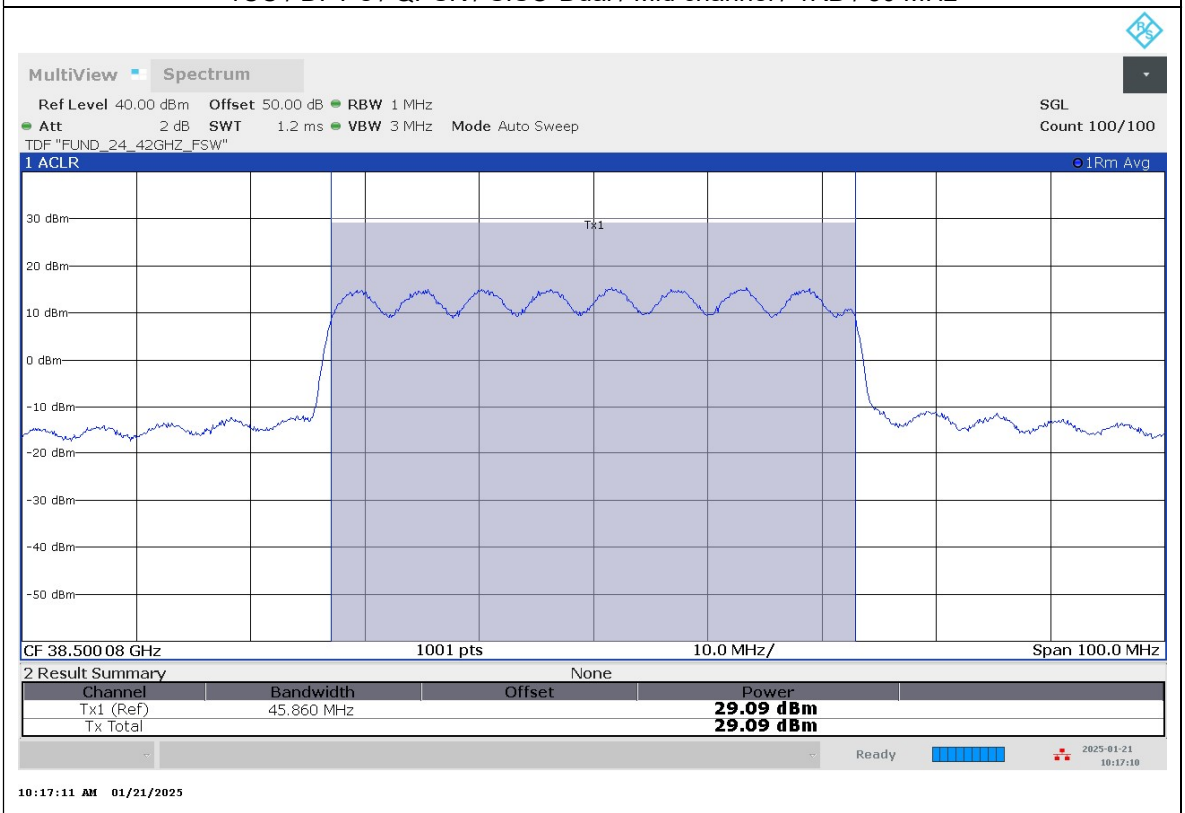


1CC / DFT-s / QPSK / SISO-Dual / Mid channel / 1RB / 50 MHz



1CC / DFT-s / QPSK / SISO-Dual / Mid channel / Full RB / 50 MHz

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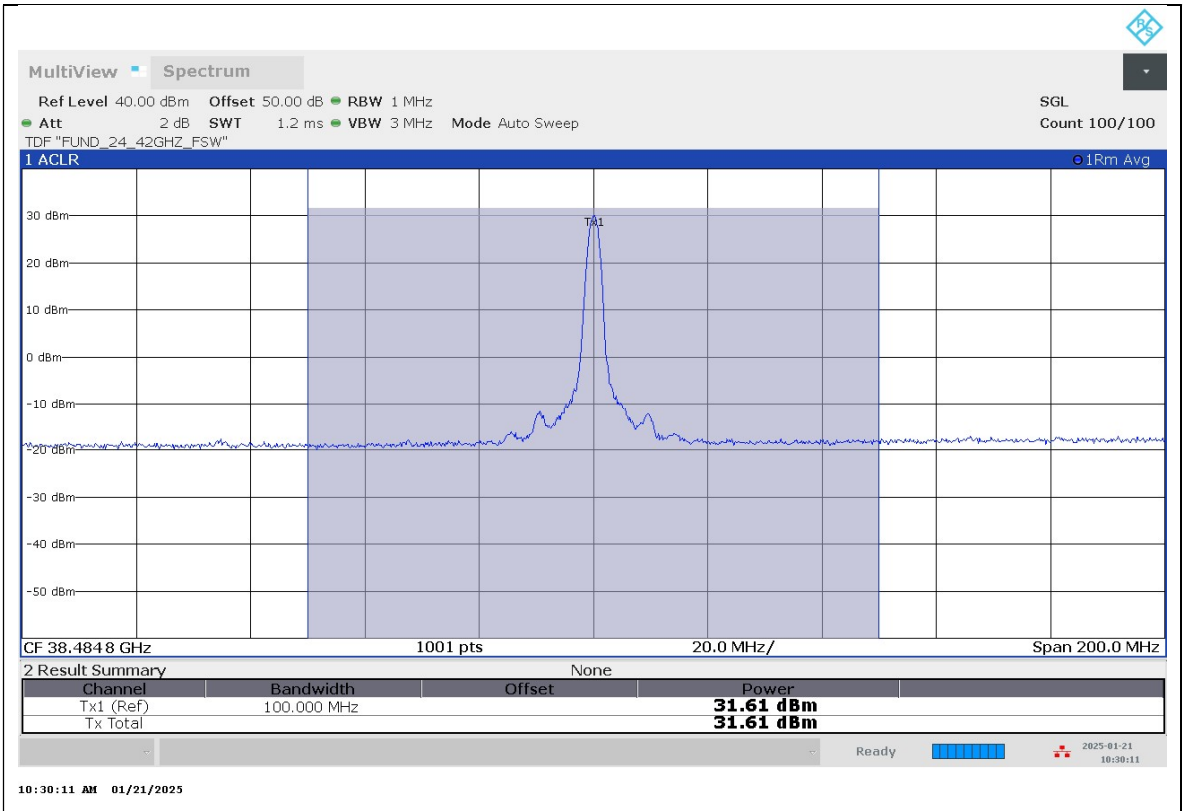
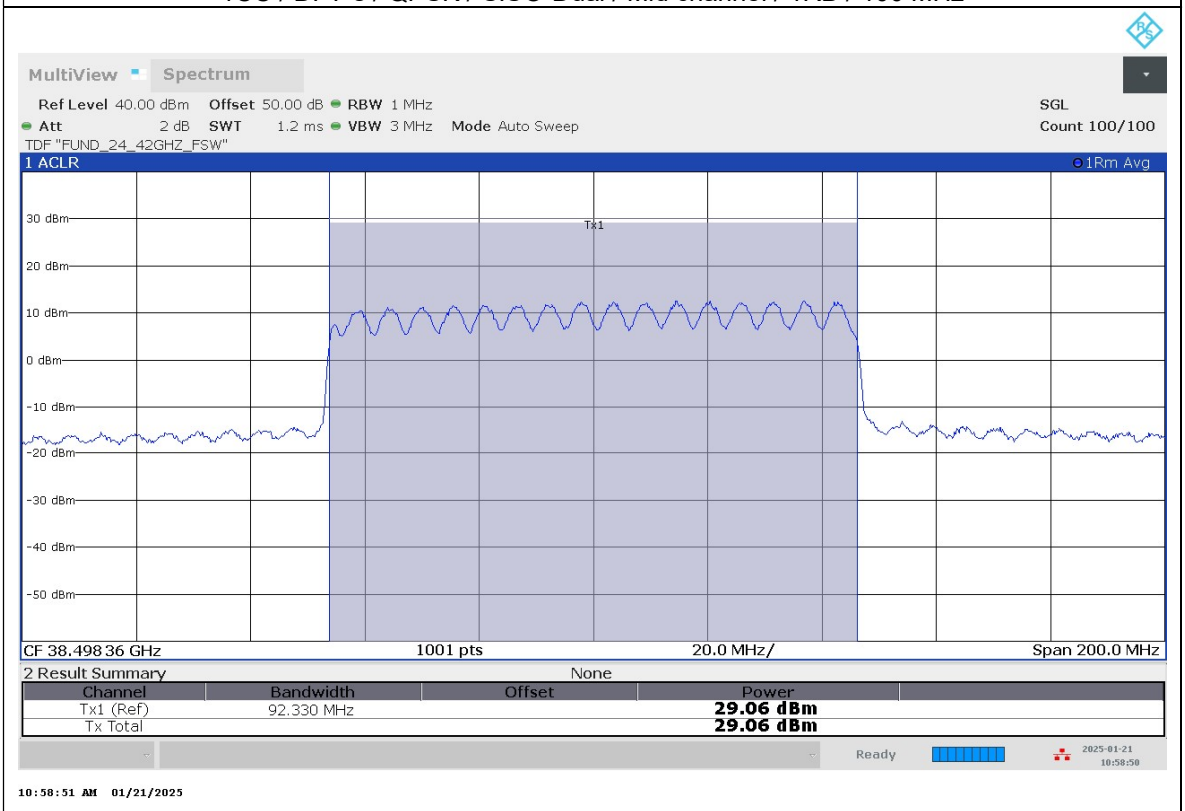


1CC / DFT-s / QPSK / SISO-Dual / Mid channel / 1RB / 100 MHz



1CC / DFT-s / QPSK / SISO-Dual / Mid channel / Full RB / 100 MHz

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8.3. BAND EDGE EMISSIONS

RULE PART(S)

FCC: §2.1051, §30.203

LIMITSs

30.203 (a) - The conductive power or the total radiated power of any emission outside a licensee's frequency block shall be −13 dBm/MHz or lower. However, in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive power or the total radiated power of any emission shall be −5 dBm/MHz or lower.

TEST PROCEDURE

a) RBW = 1MHz

b) VBW ≥ 3 x RBW

c) number of measurement points in sweep > 2 x span / RBW

d) Sweep time = auto-couple

e) Detector = RMS

f) Trace mode = average

(KDB 842590 D01 Upper Microwave Flexible Use Service v01r02 Section 4.4.2.5)
(ANSI C63.26-2015 Section 5 and 6.4)

NOTE

Band Edge emissions were measured at a 3-meter distance.

Band Edge measurements were measured as EIRP for direct comparison to the 30.203 TRP limit to demonstrate compliance.

pi/2-BPSK, QPSK, 16QAM and 64QAM modulations were all investigated in SISO, SISO-Dual and MIMO configurations. The highest band edge emissions were for the SISO-Dual antenna configuration consistent with this also being the configuration with the highest EIRP. The SISO-Dual configuration was, therefore, use for the final band-edge measurements. Full RB test case was additional measurements were made on the MIMO configuration as it has a wider bandwidth than the SISO-DUAL configuration. Only the worst-case results are reported.

5G NR: All Waveforms (CP-OFDM vs DFT-s OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

In order properly display of signal level on the plots, the pre-loaded correction factors were intentional lowered by 50 dB and an offset factor of 50 dB was applied on spectrum analyzer to compensate the true correction factors across frequency range of measurement.

The spectrum analyzer for each measurement shows an offset value that was determined using the measurement antenna factor, cable loss, far field measurement distance, and EUT antenna gain. A sample calculation is shown below.

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Sample Calculation of EIRP(at 24.245GHz):
Total Correction Factor = Cable Loss(dB) + Measurement Antenna Factor(dB/m) + 11.74dB(D=3m)
= 4.10 + 45.29 + 11.74
= 61.13 dB

EIRP = $P_{measured}$(dBm), where Total Correction Factor preloaded.

In order properly display of signal level on the plots, the pre-loaded correction factors were intentional lowered by 50 dB and an offset factor of 50 dB was applied on spectrum analyzer to compensate the true correction factors across frequency range of measurement.

Antenna gain Information at the Band Edge
The following antenna gain information is provided to demonstrate the antenna performance. Band edge emission was initially tested without correction for antenna gain.

If the EIRP measurement result exceeds the TRP limit, then calculate conductive power from EIRP by subtracting the manufacturer-supplied antenna gain from the EIRP according to the KDB 842590 4.4.2.5

Conducted Power Level(dBm/BW) = Measured EIRP level(dBm/BW) – EUT antenna Gain(dBi)
Measured EIRP(dBm/BW) = level at the measurement antenna connector(dBm/BW) – Measurement antenna Gain(dBi) + Path loss(dB)
Path loss(dB) = 20*log(Frequency in MHz) + 20*log(Measurement distance m) – 27.56

For the Conducted power calculation, the antenna gain values were used each for SISO and SISO-Dual, MIMO configuration.

Antenna	Channel	Beam Pol	Gain (dBi)
n258	Low	SISO (H)	8.42
		SISO-Dual / MIMO (H + V)	7.99
	High	SISO (H)	8.55
		SISO-Dual / MIMO (H + V)	6.74
n261	Low	SISO (H)	8.05
		SISO-Dual / MIMO (H + V)	7.27
	High	SISO (H)	8.10
		SISO-Dual / MIMO (H + V)	6.72
n260	Low	SISO (V)	8.19
		SISO-Dual / MIMO (H + V)	7.70
	High	SISO (V)	6.00
		SISO-Dual / MIMO (H + V)	7.55

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RESULTS

See the following pages.

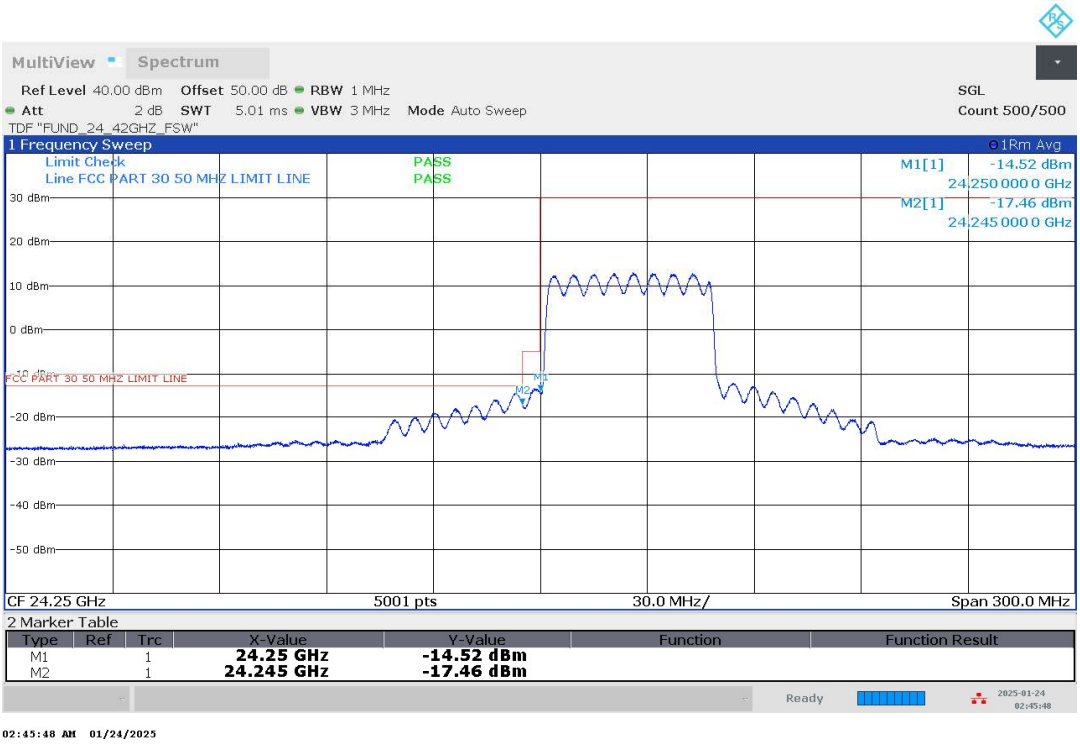
8.3.1. BAND EDGE WORST CASE RESULT

Antenna 1 / Ant M / Band n258 SB1

Ant M

n258 SB1

BW 50MHz



1CC / DFT-s / SISO-Dual / QPSK / Low channel / Full RB

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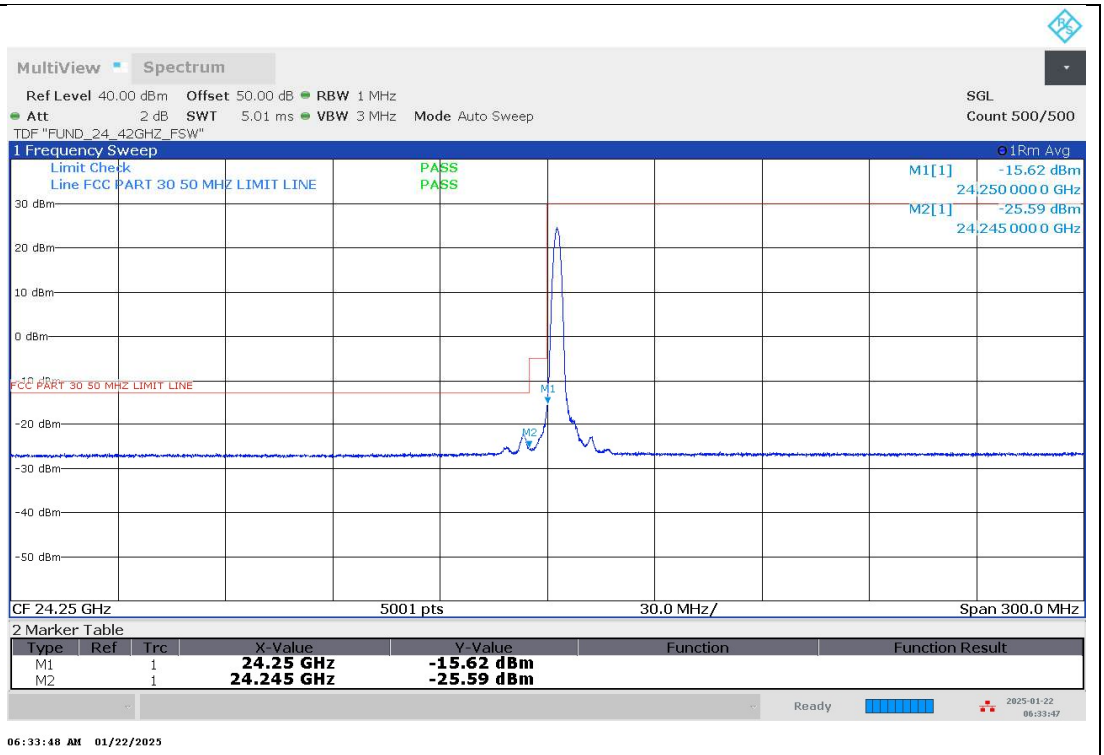
Ant M

n258
SB1

BW
50MHz

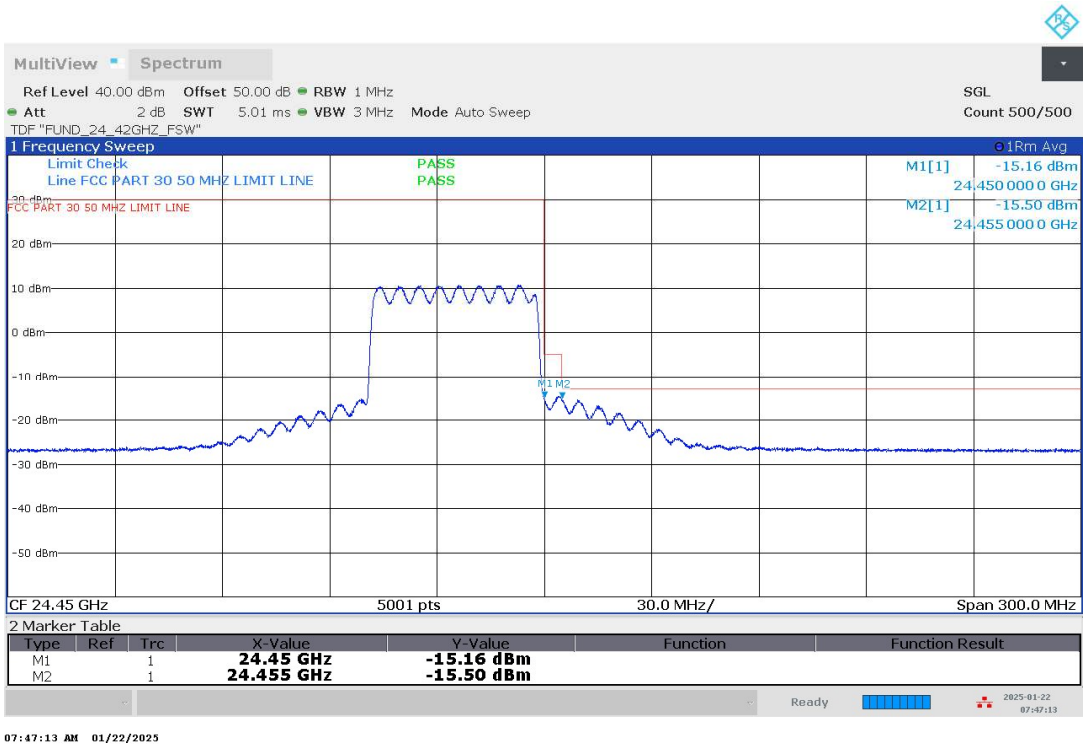


1CC / DFT-s / SISO-Dual / 16QAM / Low channel / 1 RB

Ant M

n258
SB1

BW
50MHz



1CC / DFT-s / SISO-Dual / QPSK / High channel / Full RB

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