

Appendix

LTE Band 7 Test Data

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Conducted Test Data

Conducted Output Power and EIRP

Condition	Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Gain (dBm)	EIRP (dBm)	EIRP Limit (dBm)	Verdict
NVNT	Band7	5	20775	1	#0	QPSK	25.97	4	29.97	33	PASS
NVNT	Band7	5	20775	1	#Mid	QPSK	25.73	4	29.73	33	PASS
NVNT	Band7	5	20775	1	#Max	QPSK	25.80	4	29.80	33	PASS
NVNT	Band7	5	20775	12	#0	QPSK	25.01	4	29.01	33	PASS
NVNT	Band7	5	20775	12	#Mid	QPSK	25.01	4	29.01	33	PASS
NVNT	Band7	5	20775	12	#Max	QPSK	24.81	4	28.81	33	PASS
NVNT	Band7	5	20775	25	#0	QPSK	24.90	4	28.90	33	PASS
NVNT	Band7	5	20775	1	#0	QAM16	24.62	4	28.62	33	PASS
NVNT	Band7	5	20775	1	#Mid	QAM16	25.01	4	29.01	33	PASS
NVNT	Band7	5	20775	1	#Max	QAM16	24.59	4	28.59	33	PASS
NVNT	Band7	5	20775	12	#0	QAM16	23.73	4	27.73	33	PASS
NVNT	Band7	5	20775	12	#Mid	QAM16	23.64	4	27.64	33	PASS
NVNT	Band7	5	20775	12	#Max	QAM16	23.45	4	27.45	33	PASS
NVNT	Band7	5	20775	25	#0	QAM16	23.86	4	27.86	33	PASS
NVNT	Band7	5	21100	1	#0	QPSK	25.68	4	29.68	33	PASS
NVNT	Band7	5	21100	1	#Mid	QPSK	25.83	4	29.83	33	PASS
NVNT	Band7	5	21100	1	#Max	QPSK	25.54	4	29.54	33	PASS
NVNT	Band7	5	21100	12	#0	QPSK	24.79	4	28.79	33	PASS
NVNT	Band7	5	21100	12	#Mid	QPSK	24.79	4	28.79	33	PASS
NVNT	Band7	5	21100	12	#Max	QPSK	24.69	4	28.69	33	PASS
NVNT	Band7	5	21100	25	#0	QPSK	24.78	4	28.78	33	PASS
NVNT	Band7	5	21100	1	#0	QAM16	24.70	4	28.70	33	PASS
NVNT	Band7	5	21100	1	#Mid	QAM16	24.69	4	28.69	33	PASS
NVNT	Band7	5	21100	1	#Max	QAM16	24.31	4	28.31	33	PASS
NVNT	Band7	5	21100	12	#0	QAM16	23.76	4	27.76	33	PASS
NVNT	Band7	5	21100	12	#Mid	QAM16	23.87	4	27.87	33	PASS
NVNT	Band7	5	21100	12	#Max	QAM16	23.69	4	27.69	33	PASS
NVNT	Band7	5	21100	25	#0	QAM16	23.61	4	27.61	33	PASS
NVNT	Band7	5	21425	1	#0	QPSK	25.43	4	29.43	33	PASS
NVNT	Band7	5	21425	1	#Mid	QPSK	25.48	4	29.48	33	PASS
NVNT	Band7	5	21425	1	#Max	QPSK	25.37	4	29.37	33	PASS
NVNT	Band7	5	21425	12	#0	QPSK	24.51	4	28.51	33	PASS
NVNT	Band7	5	21425	12	#Mid	QPSK	24.57	4	28.57	33	PASS
NVNT	Band7	5	21425	12	#Max	QPSK	24.70	4	28.70	33	PASS
NVNT	Band7	5	21425	25	#0	QPSK	24.47	4	28.47	33	PASS
NVNT	Band7	5	21425	1	#0	QAM16	24.68	4	28.68	33	PASS

NVNT	Band7	5	21425	1	#Mid	QAM16	24.97	4	28.97	33	PASS
NVNT	Band7	5	21425	1	#Max	QAM16	24.77	4	28.77	33	PASS
NVNT	Band7	5	21425	12	#0	QAM16	23.43	4	27.43	33	PASS
NVNT	Band7	5	21425	12	#Mid	QAM16	23.52	4	27.52	33	PASS
NVNT	Band7	5	21425	12	#Max	QAM16	23.41	4	27.41	33	PASS
NVNT	Band7	5	21425	25	#0	QAM16	23.51	4	27.51	33	PASS
NVNT	Band7	10	20800	1	#0	QPSK	25.51	4	29.51	33	PASS
NVNT	Band7	10	20800	1	#Mid	QPSK	25.67	4	29.67	33	PASS
NVNT	Band7	10	20800	1	#Max	QPSK	25.51	4	29.51	33	PASS
NVNT	Band7	10	20800	25	#0	QPSK	24.83	4	28.83	33	PASS
NVNT	Band7	10	20800	25	#Mid	QPSK	24.70	4	28.70	33	PASS
NVNT	Band7	10	20800	25	#Max	QPSK	24.78	4	28.78	33	PASS
NVNT	Band7	10	20800	50	#0	QPSK	24.73	4	28.73	33	PASS
NVNT	Band7	10	20800	1	#0	QAM16	25.29	4	29.29	33	PASS
NVNT	Band7	10	20800	1	#Mid	QAM16	25.47	4	29.47	33	PASS
NVNT	Band7	10	20800	1	#Max	QAM16	25.09	4	29.09	33	PASS
NVNT	Band7	10	20800	25	#0	QAM16	23.74	4	27.74	33	PASS
NVNT	Band7	10	20800	25	#Mid	QAM16	23.79	4	27.79	33	PASS
NVNT	Band7	10	20800	25	#Max	QAM16	23.81	4	27.81	33	PASS
NVNT	Band7	10	20800	50	#0	QAM16	23.99	4	27.99	33	PASS
NVNT	Band7	10	21100	1	#0	QPSK	25.53	4	29.53	33	PASS
NVNT	Band7	10	21100	1	#Mid	QPSK	25.93	4	29.93	33	PASS
NVNT	Band7	10	21100	1	#Max	QPSK	25.67	4	29.67	33	PASS
NVNT	Band7	10	21100	25	#0	QPSK	24.83	4	28.83	33	PASS
NVNT	Band7	10	21100	25	#Mid	QPSK	24.80	4	28.80	33	PASS
NVNT	Band7	10	21100	25	#Max	QPSK	24.81	4	28.81	33	PASS
NVNT	Band7	10	21100	50	#0	QPSK	24.83	4	28.83	33	PASS
NVNT	Band7	10	21100	1	#0	QAM16	24.41	4	28.41	33	PASS
NVNT	Band7	10	21100	1	#Mid	QAM16	24.52	4	28.52	33	PASS
NVNT	Band7	10	21100	1	#Max	QAM16	24.04	4	28.04	33	PASS
NVNT	Band7	10	21100	25	#0	QAM16	24.00	4	28	33	PASS
NVNT	Band7	10	21100	25	#Mid	QAM16	23.96	4	27.96	33	PASS
NVNT	Band7	10	21100	25	#Max	QAM16	23.80	4	27.80	33	PASS
NVNT	Band7	10	21100	50	#0	QAM16	23.93	4	27.93	33	PASS
NVNT	Band7	10	21400	1	#0	QPSK	25.71	4	29.71	33	PASS
NVNT	Band7	10	21400	1	#Mid	QPSK	25.75	4	29.75	33	PASS
NVNT	Band7	10	21400	1	#Max	QPSK	25.66	4	29.66	33	PASS
NVNT	Band7	10	21400	25	#0	QPSK	24.90	4	28.90	33	PASS
NVNT	Band7	10	21400	25	#Mid	QPSK	24.83	4	28.83	33	PASS
NVNT	Band7	10	21400	25	#Max	QPSK	24.71	4	28.71	33	PASS
NVNT	Band7	10	21400	50	#0	QPSK	24.77	4	28.77	33	PASS
NVNT	Band7	10	21400	1	#0	QAM16	25.16	4	29.16	33	PASS
NVNT	Band7	10	21400	1	#Mid	QAM16	24.62	4	28.62	33	PASS
NVNT	Band7	10	21400	1	#Max	QAM16	24.17	4	28.17	33	PASS
NVNT	Band7	10	21400	25	#0	QAM16	23.78	4	27.78	33	PASS

NVNT	Band7	10	21400	25	#Mid	QAM16	23.99	4	27.99	33	PASS
NVNT	Band7	10	21400	25	#Max	QAM16	23.80	4	27.80	33	PASS
NVNT	Band7	10	21400	50	#0	QAM16	23.72	4	27.72	33	PASS
NVNT	Band7	15	20825	1	#0	QPSK	25.65	4	29.65	33	PASS
NVNT	Band7	15	20825	1	#Mid	QPSK	26.02	4	30.02	33	PASS
NVNT	Band7	15	20825	1	#Max	QPSK	25.70	4	29.70	33	PASS
NVNT	Band7	15	20825	36	#0	QPSK	24.86	4	28.86	33	PASS
NVNT	Band7	15	20825	36	#Mid	QPSK	24.92	4	28.92	33	PASS
NVNT	Band7	15	20825	36	#Max	QPSK	24.83	4	28.83	33	PASS
NVNT	Band7	15	20825	75	#0	QPSK	24.81	4	28.81	33	PASS
NVNT	Band7	15	20825	1	#0	QAM16	24.95	4	28.95	33	PASS
NVNT	Band7	15	20825	1	#Mid	QAM16	25.05	4	29.05	33	PASS
NVNT	Band7	15	20825	1	#Max	QAM16	24.93	4	28.93	33	PASS
NVNT	Band7	15	20825	36	#0	QAM16	23.80	4	27.80	33	PASS
NVNT	Band7	15	20825	36	#Mid	QAM16	23.86	4	27.86	33	PASS
NVNT	Band7	15	20825	36	#Max	QAM16	23.87	4	27.87	33	PASS
NVNT	Band7	15	20825	75	#0	QAM16	23.85	4	27.85	33	PASS
NVNT	Band7	15	21100	1	#0	QPSK	25.54	4	29.54	33	PASS
NVNT	Band7	15	21100	1	#Mid	QPSK	25.62	4	29.62	33	PASS
NVNT	Band7	15	21100	1	#Max	QPSK	25.52	4	29.52	33	PASS
NVNT	Band7	15	21100	36	#0	QPSK	24.81	4	28.81	33	PASS
NVNT	Band7	15	21100	36	#Mid	QPSK	24.81	4	28.81	33	PASS
NVNT	Band7	15	21100	36	#Max	QPSK	24.86	4	28.86	33	PASS
NVNT	Band7	15	21100	75	#0	QPSK	24.77	4	28.77	33	PASS
NVNT	Band7	15	21100	1	#0	QAM16	25.03	4	29.03	33	PASS
NVNT	Band7	15	21100	1	#Mid	QAM16	25.29	4	29.29	33	PASS
NVNT	Band7	15	21100	1	#Max	QAM16	25.18	4	29.18	33	PASS
NVNT	Band7	15	21100	36	#0	QAM16	23.78	4	27.78	33	PASS
NVNT	Band7	15	21100	36	#Mid	QAM16	23.76	4	27.76	33	PASS
NVNT	Band7	15	21100	36	#Max	QAM16	23.72	4	27.72	33	PASS
NVNT	Band7	15	21100	75	#0	QAM16	23.87	4	27.87	33	PASS
NVNT	Band7	15	21375	1	#0	QPSK	25.75	4	29.75	33	PASS
NVNT	Band7	15	21375	1	#Mid	QPSK	25.88	4	29.88	33	PASS
NVNT	Band7	15	21375	1	#Max	QPSK	25.39	4	29.39	33	PASS
NVNT	Band7	15	21375	36	#0	QPSK	24.66	4	28.66	33	PASS
NVNT	Band7	15	21375	36	#Mid	QPSK	24.84	4	28.84	33	PASS
NVNT	Band7	15	21375	36	#Max	QPSK	24.66	4	28.66	33	PASS
NVNT	Band7	15	21375	75	#0	QPSK	24.64	4	28.64	33	PASS
NVNT	Band7	15	21375	1	#0	QAM16	24.51	4	28.51	33	PASS
NVNT	Band7	15	21375	1	#Mid	QAM16	24.87	4	28.87	33	PASS
NVNT	Band7	15	21375	1	#Max	QAM16	23.83	4	27.83	33	PASS
NVNT	Band7	15	21375	36	#0	QAM16	23.63	4	27.63	33	PASS
NVNT	Band7	15	21375	36	#Mid	QAM16	23.89	4	27.89	33	PASS
NVNT	Band7	15	21375	36	#Max	QAM16	23.79	4	27.79	33	PASS
NVNT	Band7	15	21375	75	#0	QAM16	23.74	4	27.74	33	PASS

NVNT	Band7	20	20850	1	#0	QPSK	25.42	4	29.42	33	PASS
NVNT	Band7	20	20850	1	#Mid	QPSK	25.93	4	29.93	33	PASS
NVNT	Band7	20	20850	1	#Max	QPSK	25.61	4	29.61	33	PASS
NVNT	Band7	20	20850	50	#0	QPSK	24.86	4	28.86	33	PASS
NVNT	Band7	20	20850	50	#Mid	QPSK	24.91	4	28.91	33	PASS
NVNT	Band7	20	20850	50	#Max	QPSK	24.88	4	28.88	33	PASS
NVNT	Band7	20	20850	100	#0	QPSK	24.84	4	28.84	33	PASS
NVNT	Band7	20	20850	1	#0	QAM16	24.82	4	28.82	33	PASS
NVNT	Band7	20	20850	1	#Mid	QAM16	24.41	4	28.41	33	PASS
NVNT	Band7	20	20850	1	#Max	QAM16	24.35	4	28.35	33	PASS
NVNT	Band7	20	20850	50	#0	QAM16	24.00	4	28	33	PASS
NVNT	Band7	20	20850	50	#Mid	QAM16	24.06	4	28.06	33	PASS
NVNT	Band7	20	20850	50	#Max	QAM16	23.96	4	27.96	33	PASS
NVNT	Band7	20	20850	100	#0	QAM16	23.88	4	27.88	33	PASS
NVNT	Band7	20	21100	1	#0	QPSK	25.65	4	29.65	33	PASS
NVNT	Band7	20	21100	1	#Mid	QPSK	25.79	4	29.79	33	PASS
NVNT	Band7	20	21100	1	#Max	QPSK	25.76	4	29.76	33	PASS
NVNT	Band7	20	21100	50	#0	QPSK	24.95	4	28.95	33	PASS
NVNT	Band7	20	21100	50	#Mid	QPSK	24.88	4	28.88	33	PASS
NVNT	Band7	20	21100	50	#Max	QPSK	24.86	4	28.86	33	PASS
NVNT	Band7	20	21100	100	#0	QPSK	24.92	4	28.92	33	PASS
NVNT	Band7	20	21100	1	#0	QAM16	24.24	4	28.24	33	PASS
NVNT	Band7	20	21100	1	#Mid	QAM16	24.85	4	28.85	33	PASS
NVNT	Band7	20	21100	1	#Max	QAM16	24.25	4	28.25	33	PASS
NVNT	Band7	20	21100	50	#0	QAM16	23.87	4	27.87	33	PASS
NVNT	Band7	20	21100	50	#Mid	QAM16	23.91	4	27.91	33	PASS
NVNT	Band7	20	21100	50	#Max	QAM16	23.80	4	27.80	33	PASS
NVNT	Band7	20	21100	100	#0	QAM16	23.94	4	27.94	33	PASS
NVNT	Band7	20	21350	1	#0	QPSK	25.90	4	29.90	33	PASS
NVNT	Band7	20	21350	1	#Mid	QPSK	25.99	4	29.99	33	PASS
NVNT	Band7	20	21350	1	#Max	QPSK	25.64	4	29.64	33	PASS
NVNT	Band7	20	21350	50	#0	QPSK	24.78	4	28.78	33	PASS
NVNT	Band7	20	21350	50	#Mid	QPSK	24.87	4	28.87	33	PASS
NVNT	Band7	20	21350	50	#Max	QPSK	24.81	4	28.81	33	PASS
NVNT	Band7	20	21350	100	#0	QPSK	24.78	4	28.78	33	PASS
NVNT	Band7	20	21350	1	#0	QAM16	24.25	4	28.25	33	PASS
NVNT	Band7	20	21350	1	#Mid	QAM16	24.41	4	28.41	33	PASS
NVNT	Band7	20	21350	1	#Max	QAM16	24.05	4	28.05	33	PASS
NVNT	Band7	20	21350	50	#0	QAM16	23.76	4	27.76	33	PASS
NVNT	Band7	20	21350	50	#Mid	QAM16	24.03	4	28.03	33	PASS
NVNT	Band7	20	21350	50	#Max	QAM16	23.87	4	27.87	33	PASS
NVNT	Band7	20	21350	100	#0	QAM16	23.73	4	27.73	33	PASS

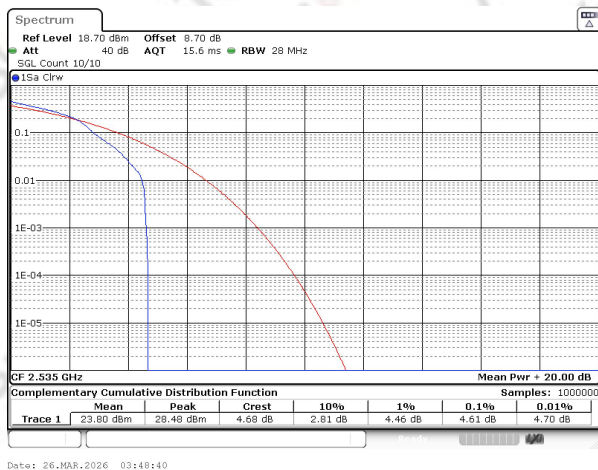
Frequency stability

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Voltage (Vdc)	Temperature (°C)	Result (Hz)	Result (ppm)	Verdict
Band7	20	21100	100	#0	QPSK	VL	NT	-2.90	-0.001	PASS
Band7	20	21100	100	#0	QPSK	VN	NT	-1.92	-0.001	PASS
Band7	20	21100	100	#0	QPSK	VH	NT	-2.05	-0.001	PASS

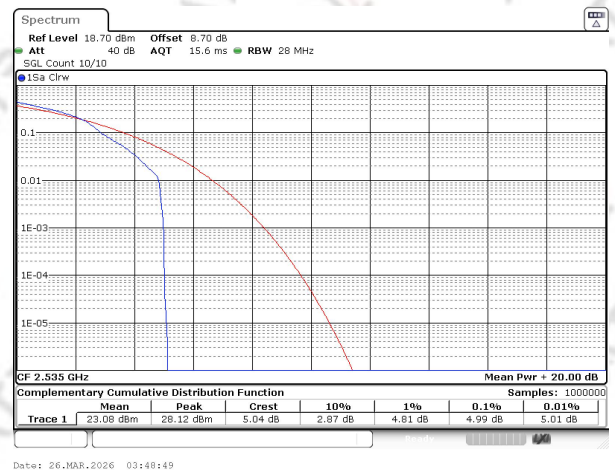
Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Voltage (Vdc)	Temperature (°C)	Result (Hz)	Result (ppm)	Verdict
Band7	20	21100	100	#0	QPSK	NV	-30	-2.52	-0.001	PASS
Band7	20	21100	100	#0	QPSK	NV	-20	-4.52	-0.002	PASS
Band7	20	21100	100	#0	QPSK	NV	-10	-2.61	-0.001	PASS
Band7	20	21100	100	#0	QPSK	NV	0	-2.33	-0.001	PASS
Band7	20	21100	100	#0	QPSK	NV	10	-3.62	-0.001	PASS
Band7	20	21100	100	#0	QPSK	NV	20	-4.59	-0.002	PASS
Band7	20	21100	100	#0	QPSK	NV	30	-3.65	-0.001	PASS
Band7	20	21100	100	#0	QPSK	NV	40	-3.58	-0.001	PASS
Band7	20	21100	100	#0	QPSK	NV	50	-2.90	-0.001	PASS

Peak-to-Average Ratio

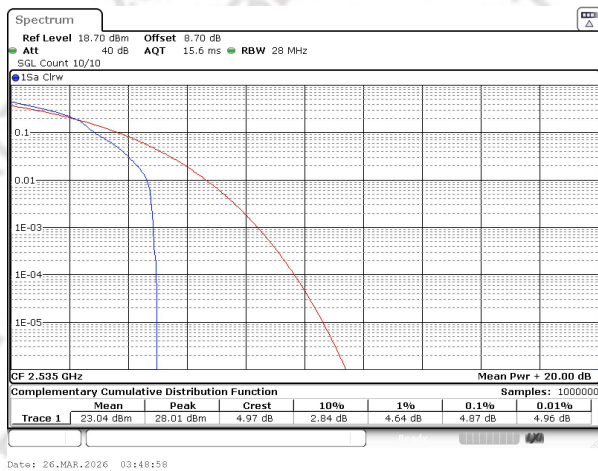
Condition	Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Result (dB)	high Limit (dB)	Verdict
NVNT	Band7	5	21100	1	#0	QPSK	3.51	13	PASS
NVNT	Band7	5	21100	1	#0	QAM16	4.61	13	PASS
NVNT	Band7	10	21100	1	#0	QPSK	3.83	13	PASS
NVNT	Band7	10	21100	1	#0	QAM16	4.61	13	PASS
NVNT	Band7	15	21100	1	#0	QPSK	3.94	13	PASS
NVNT	Band7	15	21100	1	#0	QAM16	4.99	13	PASS
NVNT	Band7	20	21100	1	#0	QPSK	4.29	13	PASS
NVNT	Band7	20	21100	1	#0	QAM16	4.87	13	PASS



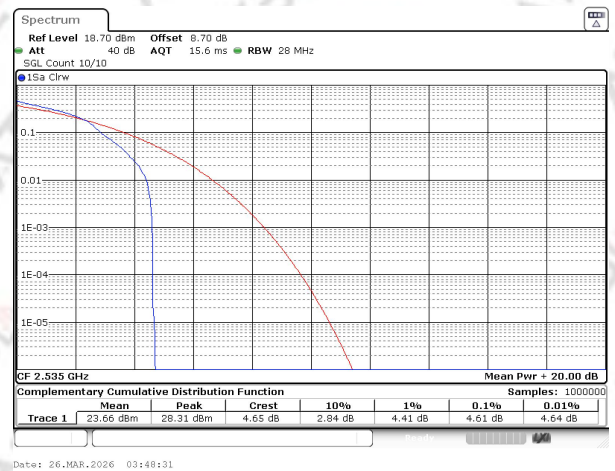
Band7 QAM16 BW=10MHz Channel=21100 RB Size=1 Position=#0
NVNT



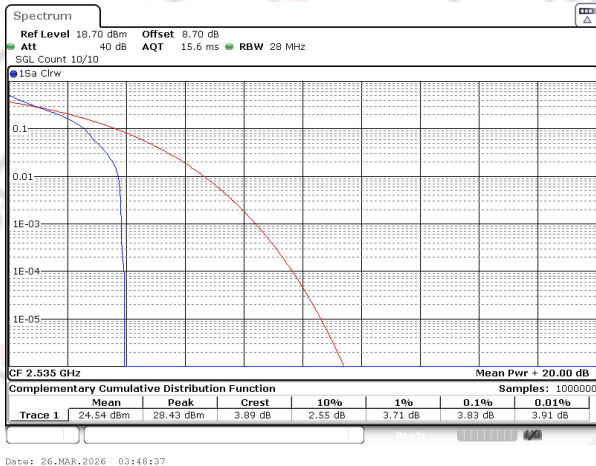
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NVNT



Band7 QAM16 BW=20MHz Channel=21100 RB Size=1 Position=#0
NVNT

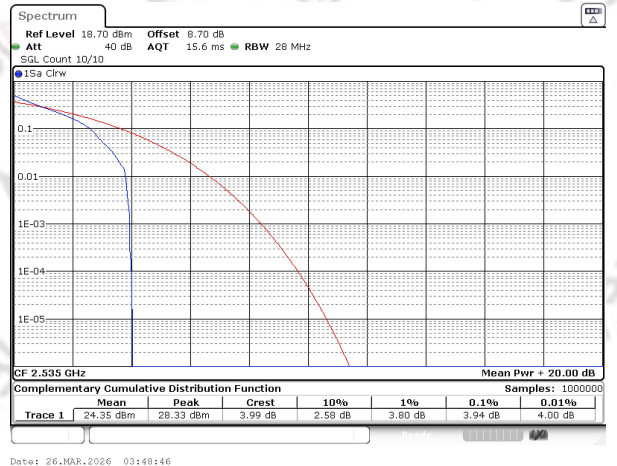


Band7 QAM16 BW=5MHz Channel=21100 RB Size=1 Position=#0
NVNT



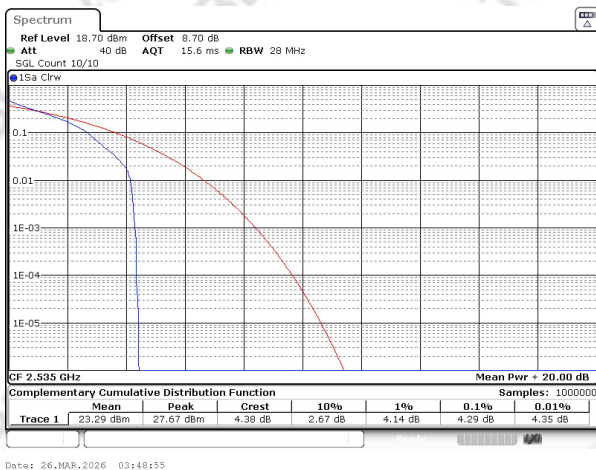
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NVNT



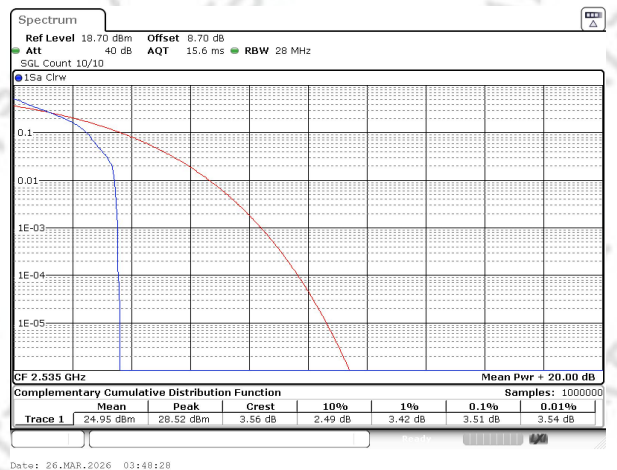
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NVNT



Band7 QPSK BW=20MHz Channel=21100 RB Size=1 Position=#0

NVNT

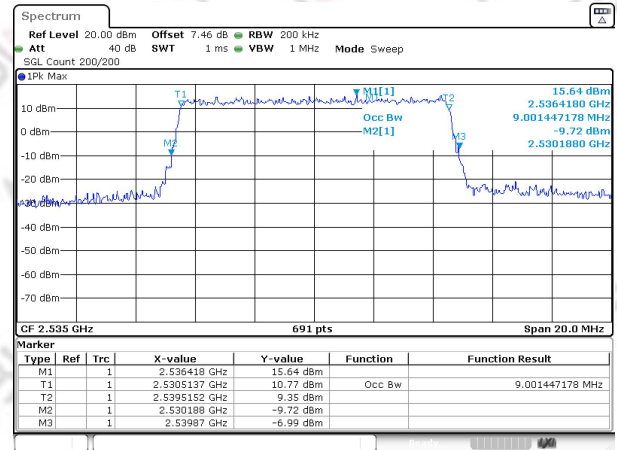
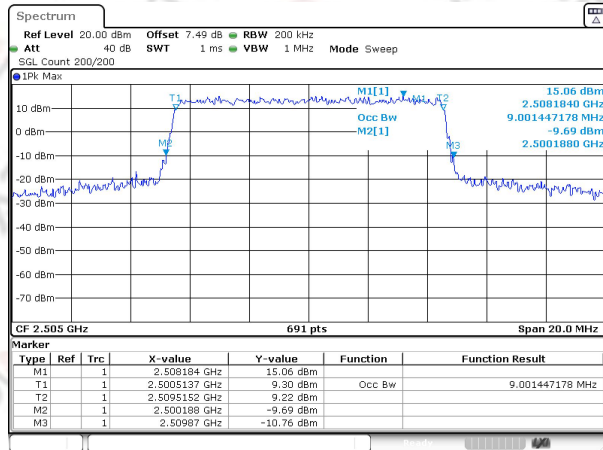


Band7 QPSK BW=5MHz Channel=21100 RB Size=1 Position=#0

NVNT

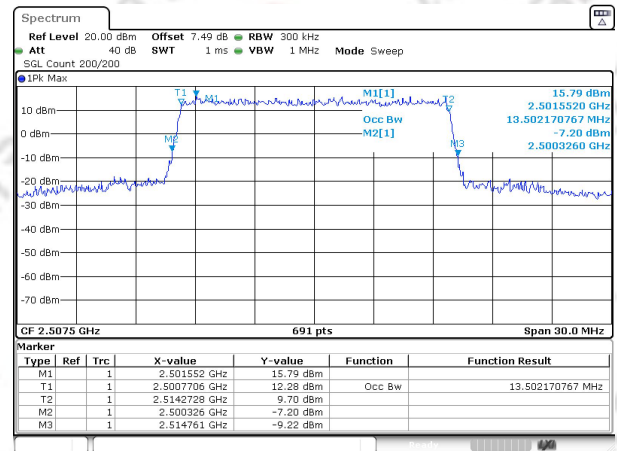
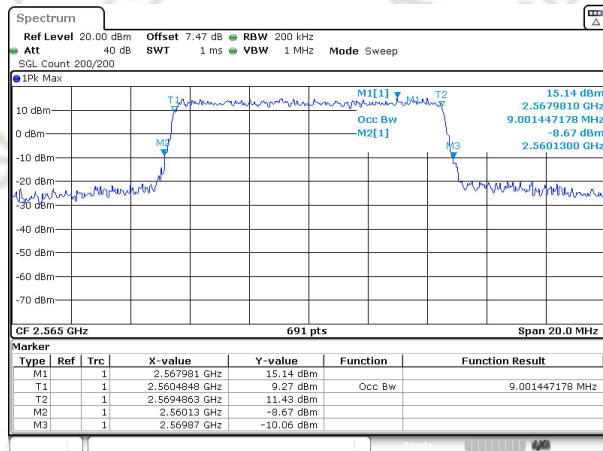
Occupied bandwidth

Condition	Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	99% OBW (MHz)	-26dB EBW (MHz)	Verdict
NVNT	Band7	5	20775	25	#0	QPSK	4.486	4.884	PASS
NVNT	Band7	5	20775	25	#0	QAM16	4.486	4.928	PASS
NVNT	Band7	5	21100	25	#0	QPSK	4.501	4.884	PASS
NVNT	Band7	5	21100	25	#0	QAM16	4.486	4.928	PASS
NVNT	Band7	5	21425	25	#0	QPSK	4.501	4.899	PASS
NVNT	Band7	5	21425	25	#0	QAM16	4.501	4.841	PASS
NVNT	Band7	10	20800	50	#0	QPSK	9.001	9.768	PASS
NVNT	Band7	10	20800	50	#0	QAM16	9.001	9.681	PASS
NVNT	Band7	10	21100	50	#0	QPSK	8.973	9.710	PASS
NVNT	Band7	10	21100	50	#0	QAM16	9.001	9.681	PASS
NVNT	Band7	10	21400	50	#0	QPSK	9.001	9.739	PASS
NVNT	Band7	10	21400	50	#0	QAM16	9.001	9.739	PASS
NVNT	Band7	15	20825	75	#0	QPSK	13.415	14.565	PASS
NVNT	Band7	15	20825	75	#0	QAM16	13.502	14.435	PASS
NVNT	Band7	15	21100	75	#0	QPSK	13.415	14.478	PASS
NVNT	Band7	15	21100	75	#0	QAM16	13.459	14.609	PASS
NVNT	Band7	15	21375	75	#0	QPSK	13.459	14.783	PASS
NVNT	Band7	15	21375	75	#0	QAM16	13.502	14.565	PASS
NVNT	Band7	20	20850	100	#0	QPSK	18.061	19.536	PASS
NVNT	Band7	20	20850	100	#0	QAM16	17.945	19.420	PASS
NVNT	Band7	20	21100	100	#0	QPSK	17.945	19.420	PASS
NVNT	Band7	20	21100	100	#0	QAM16	18.003	19.362	PASS
NVNT	Band7	20	21350	100	#0	QPSK	18.003	19.304	PASS
NVNT	Band7	20	21350	100	#0	QAM16	18.003	19.304	PASS



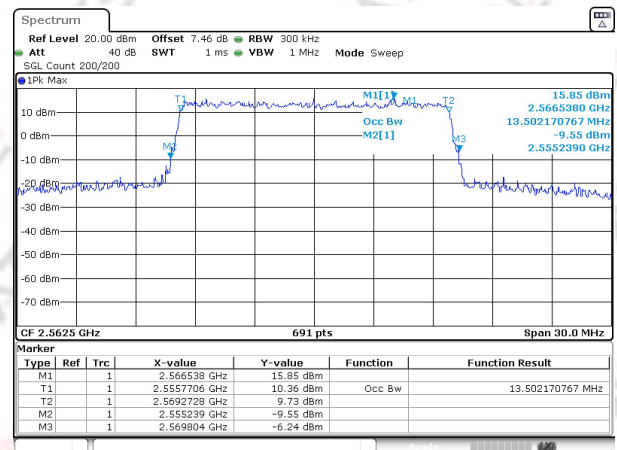
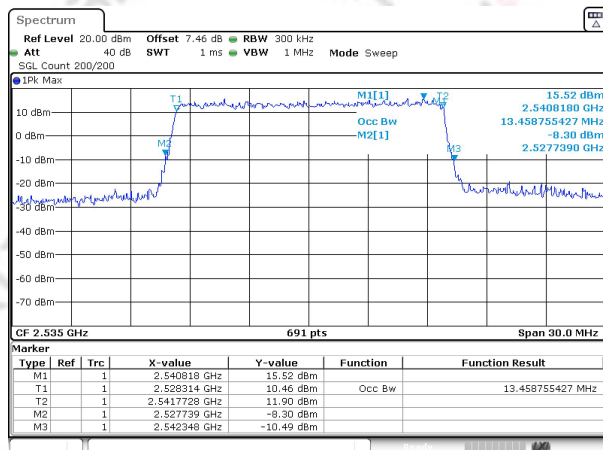
Band7 QAM16 BW=10MHz Channel=20800 RB Size=50 Position=#0

Band7 QAM16 BW=10MHz Channel=21100 RB Size=50 Position=#0



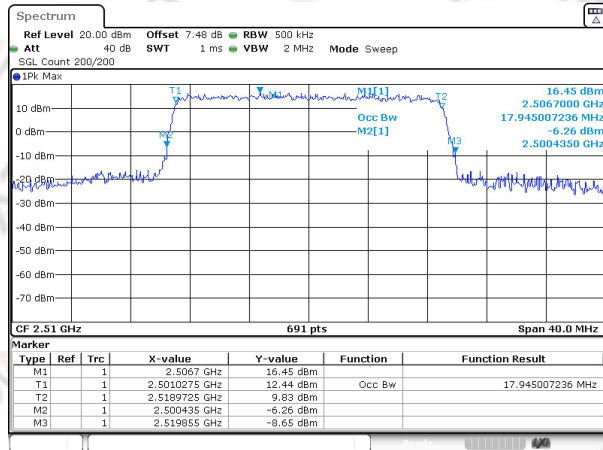
Band7 QAM16 BW=10MHz Channel=21400 RB Size=50 Position=#0

Band7 QAM16 BW=15MHz Channel=20825 RB Size=75 Position=#0



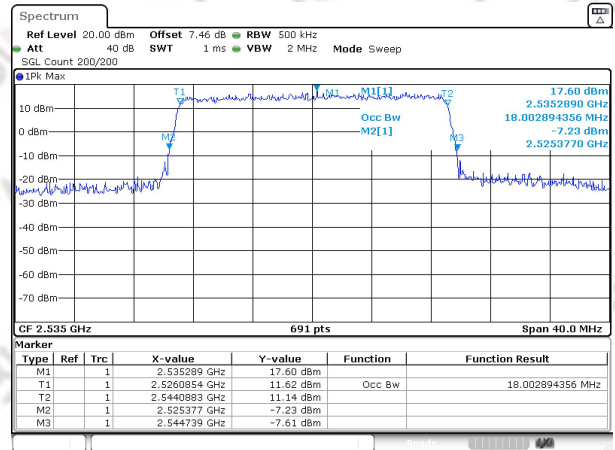
Band7 QAM16 BW=15MHz Channel=21100 RB Size=75 Position=#0

Band7 QAM16 BW=15MHz Channel=21375 RB Size=75 Position=#0



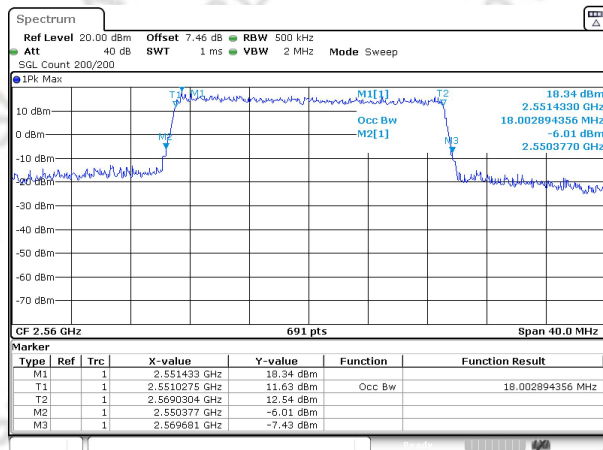
Band7 QAM16 BW=20MHz Channel=20850 RB Size=100

Position=#0



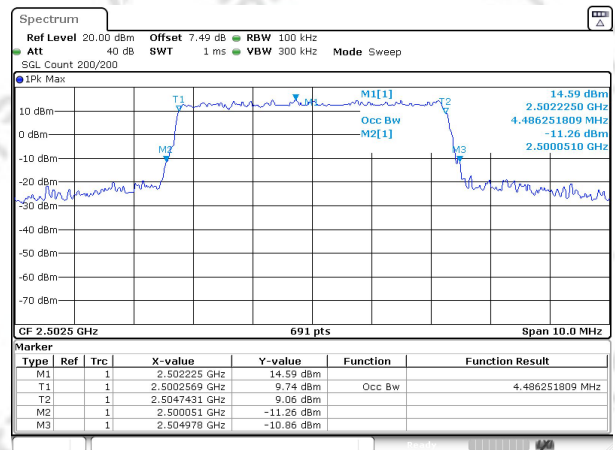
Band7 QAM16 BW=20MHz Channel=21100 RB Size=100

Position=#0

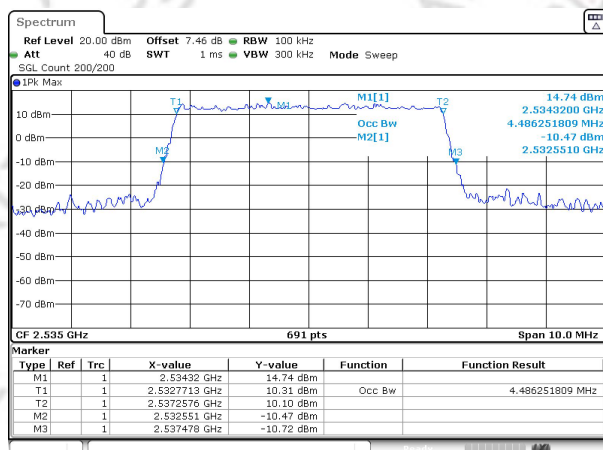


Band7 QAM16 BW=20MHz Channel=21350 RB Size=100

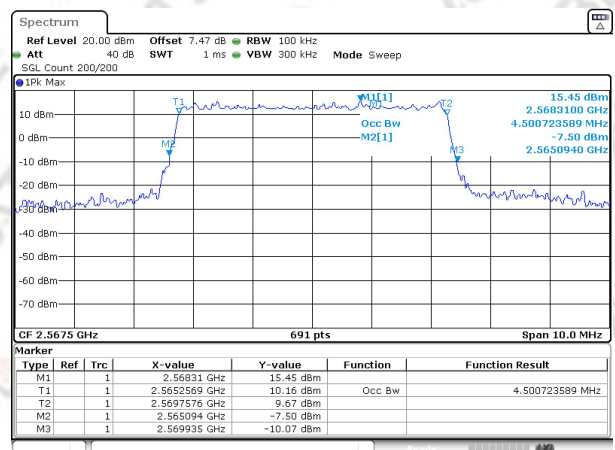
Position=#0



Band7 QAM16 BW=5MHz Channel=20775 RB Size=25 Position=#0



Band7 QAM16 BW=5MHz Channel=21100 RB Size=25 Position=#0



Band7 QAM16 BW=5MHz Channel=21425 RB Size=25 Position=#0