

Appendix B

E-UTRA Band 2

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1. Main Test Instruments

RE in Chamber					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal. Due date
				(yyyy-mm-dd)	(yyyy-mm-dd)
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2018/3/13	2021/3/12
Spectrum Analyzer (20Hz-43GHz)	Rohde & Schwarz	FSU43	SEM004-08	2019/3/2	2020/3/1
BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-01	2017/6/27	2020/6/26
Horn Antenna (800MHz-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2018/4/13	2021/4/12
Horn Antenna (15-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2017/10/17	2020/10/16
Amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2019/7/14	2020/7/14
Low Noise Amplifier (100MHz-18GHz)	Black Diamond Series	BDLNA-0118-352810	SEM005-05	2019/7/14	2020/7/14
Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	EMC2063	2019/9/20	2020/9/19
Pre-amplifier (26-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2019/3/2	2020/3/1
Band filter	N/A	N/A	N/A	N/A	N/A
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2019/6/12	2020/6/11
Wideband Radio Communication Tester	Anristu	MT8821C	6201462742	2019/4/3	2020/4/3
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	W005-02	2019/1/13	2020/1/12
RF conducted test					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal. Due date
				(yyyy-mm-dd)	(yyyy-mm-dd)
Dual Output Mobile Communication DC Source	Agilent Technologies Inc	66311B	W009-09	2018/11/2	2019/11/1
Signal Analyzer	Rohde & Schwarz	FSV	W005-02	2019/3/2	2020/3/1
Coaxial Cable	SGS	N/A	SEM031-01	2019/6/12	2020/6/11
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2018/11/2	2019/11/1
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	HTC-1	W006-17	2018/11/2	2019/11/1
Temperature Chamber	GIANT FORCE	ICT-150-40-CP-AR	W027-03	2018/11/2	2019/11/1
Wideband Radio Communication Tester	Anristu	MT8821C	6201462742	2019/3/2	2020/3/1

2. Measurement Uncertainty

For a 95% confidence level ($k = 2$), the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 as following:

Test Item	Extended Uncertainty	Data
Transmit Output Power Data	Power [dBm]	$U = \pm 0.37$ dB
Bandwidth	Magnitude [%]	$U = \pm 0.2\%$
Band Edge Compliance	Disturbance Power [dBm]	$U = \pm 2.0$ dB
Spurious Emissions, Conducted	Disturbance Power [dBm]	$U = \pm 2.0$ dB
Frequency Stability	Frequency Accuracy [ppm]	$U = \pm 0.24$ ppm

3 Effective (Isotropic) Radiated Power

3.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band2	1.4MHz	QPSK	18607	1RB#0	22.23	21.36	33.00	PASS
Band2	1.4MHz	QPSK	18607	1RB#2	22.38	21.51	33.00	PASS
Band2	1.4MHz	QPSK	18607	1RB#5	22.23	21.36	33.00	PASS
Band2	1.4MHz	QPSK	18607	3RB#1	22.38	21.51	33.00	PASS
Band2	1.4MHz	QPSK	18607	3RB#0	22.33	21.46	33.00	PASS
Band2	1.4MHz	QPSK	18607	3RB#3	22.35	21.48	33.00	PASS
Band2	1.4MHz	QPSK	18607	6RB#0	21.35	20.48	33.00	PASS
Band2	1.4MHz	QPSK	18900	1RB#5	22.26	21.39	33.00	PASS
Band2	1.4MHz	QPSK	18900	1RB#0	22.25	21.38	33.00	PASS
Band2	1.4MHz	QPSK	18900	1RB#2	22.41	21.54	33.00	PASS
Band2	1.4MHz	QPSK	18900	3RB#0	22.37	21.50	33.00	PASS
Band2	1.4MHz	QPSK	18900	3RB#1	22.43	21.56	33.00	PASS
Band2	1.4MHz	QPSK	18900	3RB#3	22.37	21.50	33.00	PASS
Band2	1.4MHz	QPSK	18900	6RB#0	21.34	20.47	33.00	PASS
Band2	1.4MHz	QPSK	19193	1RB#2	22.40	21.53	33.00	PASS
Band2	1.4MHz	QPSK	19193	1RB#5	22.25	21.38	33.00	PASS
Band2	1.4MHz	QPSK	19193	1RB#0	22.26	21.39	33.00	PASS
Band2	1.4MHz	QPSK	19193	3RB#0	22.36	21.49	33.00	PASS
Band2	1.4MHz	QPSK	19193	3RB#3	22.35	21.48	33.00	PASS
Band2	1.4MHz	QPSK	19193	3RB#1	22.42	21.55	33.00	PASS
Band2	1.4MHz	QPSK	19193	6RB#0	21.37	20.50	33.00	PASS
Band2	1.4MHz	16QAM	18607	1RB#2	21.78	20.91	33.00	PASS
Band2	1.4MHz	16QAM	18607	1RB#5	21.49	20.62	33.00	PASS
Band2	1.4MHz	16QAM	18607	1RB#0	21.53	20.66	33.00	PASS
Band2	1.4MHz	16QAM	18607	3RB#0	21.44	20.57	33.00	PASS
Band2	1.4MHz	16QAM	18607	3RB#1	21.46	20.59	33.00	PASS
Band2	1.4MHz	16QAM	18607	3RB#3	21.48	20.61	33.00	PASS
Band2	1.4MHz	16QAM	18607	6RB#0	20.42	19.55	33.00	PASS
Band2	1.4MHz	16QAM	18900	1RB#5	21.56	20.69	33.00	PASS
Band2	1.4MHz	16QAM	18900	1RB#0	21.56	20.69	33.00	PASS
Band2	1.4MHz	16QAM	18900	1RB#2	21.64	20.77	33.00	PASS
Band2	1.4MHz	16QAM	18900	3RB#3	21.46	20.59	33.00	PASS
Band2	1.4MHz	16QAM	18900	3RB#1	21.55	20.68	33.00	PASS
Band2	1.4MHz	16QAM	18900	3RB#0	21.46	20.59	33.00	PASS
Band2	1.4MHz	16QAM	18900	6RB#0	20.44	19.57	33.00	PASS
Band2	1.4MHz	16QAM	19193	1RB#2	21.71	20.84	33.00	PASS
Band2	1.4MHz	16QAM	19193	1RB#5	21.60	20.73	33.00	PASS
Band2	1.4MHz	16QAM	19193	1RB#0	21.49	20.62	33.00	PASS
Band2	1.4MHz	16QAM	19193	3RB#3	21.41	20.54	33.00	PASS
Band2	1.4MHz	16QAM	19193	3RB#1	21.52	20.65	33.00	PASS
Band2	1.4MHz	16QAM	19193	3RB#0	21.49	20.62	33.00	PASS
Band2	1.4MHz	16QAM	19193	6RB#0	20.45	19.58	33.00	PASS
Band2	3MHz	QPSK	18615	1RB#14	22.24	21.37	33.00	PASS
Band2	3MHz	QPSK	18615	1RB#0	22.29	21.42	33.00	PASS
Band2	3MHz	QPSK	18615	1RB#8	22.29	21.42	33.00	PASS

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Band2	3MHz	QPSK	18615	8RB#7	21.31	20.44	33.00	PASS
Band2	3MHz	QPSK	18615	8RB#4	21.34	20.47	33.00	PASS
Band2	3MHz	QPSK	18615	8RB#0	21.32	20.45	33.00	PASS
Band2	3MHz	QPSK	18615	15RB#0	21.28	20.41	33.00	PASS
Band2	3MHz	QPSK	18900	1RB#14	22.32	21.45	33.00	PASS
Band2	3MHz	QPSK	18900	1RB#8	22.33	21.46	33.00	PASS
Band2	3MHz	QPSK	18900	1RB#0	22.32	21.45	33.00	PASS
Band2	3MHz	QPSK	18900	8RB#7	21.35	20.48	33.00	PASS
Band2	3MHz	QPSK	18900	8RB#0	21.35	20.48	33.00	PASS
Band2	3MHz	QPSK	18900	8RB#4	21.38	20.51	33.00	PASS
Band2	3MHz	QPSK	18900	15RB#0	21.32	20.45	33.00	PASS
Band2	3MHz	QPSK	19185	1RB#14	22.32	21.45	33.00	PASS
Band2	3MHz	QPSK	19185	1RB#8	22.30	21.43	33.00	PASS
Band2	3MHz	QPSK	19185	1RB#0	22.31	21.44	33.00	PASS
Band2	3MHz	QPSK	19185	8RB#4	21.39	20.52	33.00	PASS
Band2	3MHz	QPSK	19185	8RB#0	21.37	20.50	33.00	PASS
Band2	3MHz	QPSK	19185	8RB#7	21.34	20.47	33.00	PASS
Band2	3MHz	QPSK	19185	15RB#0	21.34	20.47	33.00	PASS
Band2	3MHz	16QAM	18615	1RB#8	21.60	20.73	33.00	PASS
Band2	3MHz	16QAM	18615	1RB#14	21.49	20.62	33.00	PASS
Band2	3MHz	16QAM	18615	1RB#0	21.61	20.74	33.00	PASS
Band2	3MHz	16QAM	18615	8RB#0	20.34	19.47	33.00	PASS
Band2	3MHz	16QAM	18615	8RB#7	20.35	19.48	33.00	PASS
Band2	3MHz	16QAM	18615	8RB#4	20.36	19.49	33.00	PASS
Band2	3MHz	16QAM	18615	15RB#0	20.26	19.39	33.00	PASS
Band2	3MHz	16QAM	18900	1RB#8	21.62	20.75	33.00	PASS
Band2	3MHz	16QAM	18900	1RB#14	21.51	20.64	33.00	PASS
Band2	3MHz	16QAM	18900	1RB#0	21.62	20.75	33.00	PASS
Band2	3MHz	16QAM	18900	8RB#4	20.41	19.54	33.00	PASS
Band2	3MHz	16QAM	18900	8RB#0	20.40	19.53	33.00	PASS
Band2	3MHz	16QAM	18900	8RB#7	20.35	19.48	33.00	PASS
Band2	3MHz	16QAM	18900	15RB#0	20.30	19.43	33.00	PASS
Band2	3MHz	16QAM	19185	1RB#14	21.57	20.70	33.00	PASS
Band2	3MHz	16QAM	19185	1RB#0	21.64	20.77	33.00	PASS
Band2	3MHz	16QAM	19185	1RB#8	21.54	20.67	33.00	PASS
Band2	3MHz	16QAM	19185	8RB#0	20.42	19.55	33.00	PASS
Band2	3MHz	16QAM	19185	8RB#7	20.39	19.52	33.00	PASS
Band2	3MHz	16QAM	19185	8RB#4	20.43	19.56	33.00	PASS
Band2	3MHz	16QAM	19185	15RB#0	20.33	19.46	33.00	PASS
Band2	5MHz	QPSK	18625	1RB#24	22.14	21.27	33.00	PASS
Band2	5MHz	QPSK	18625	1RB#12	22.42	21.55	33.00	PASS
Band2	5MHz	QPSK	18625	1RB#0	22.21	21.34	33.00	PASS
Band2	5MHz	QPSK	18625	12RB#6	21.36	20.49	33.00	PASS
Band2	5MHz	QPSK	18625	12RB#0	21.23	20.36	33.00	PASS
Band2	5MHz	QPSK	18625	12RB#13	21.36	20.49	33.00	PASS
Band2	5MHz	QPSK	18625	25RB#0	21.30	20.43	33.00	PASS
Band2	5MHz	QPSK	18900	1RB#24	22.20	21.33	33.00	PASS
Band2	5MHz	QPSK	18900	1RB#0	22.22	21.35	33.00	PASS
Band2	5MHz	QPSK	18900	1RB#12	22.47	21.60	33.00	PASS
Band2	5MHz	QPSK	18900	12RB#6	21.40	20.53	33.00	PASS
Band2	5MHz	QPSK	18900	12RB#0	21.36	20.49	33.00	PASS
Band2	5MHz	QPSK	18900	12RB#13	21.36	20.49	33.00	PASS
Band2	5MHz	QPSK	18900	25RB#0	21.34	20.47	33.00	PASS

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Band2	5MHz	QPSK	19175	1RB#0	22.22	21.35	33.00	PASS
Band2	5MHz	QPSK	19175	1RB#12	22.48	21.61	33.00	PASS
Band2	5MHz	QPSK	19175	1RB#24	22.22	21.35	33.00	PASS
Band2	5MHz	QPSK	19175	12RB#0	21.41	20.54	33.00	PASS
Band2	5MHz	QPSK	19175	12RB#6	21.40	20.53	33.00	PASS
Band2	5MHz	QPSK	19175	12RB#13	21.28	20.41	33.00	PASS
Band2	5MHz	QPSK	19175	25RB#0	21.34	20.47	33.00	PASS
Band2	5MHz	16QAM	18625	1RB#0	21.51	20.64	33.00	PASS
Band2	5MHz	16QAM	18625	1RB#12	21.65	20.78	33.00	PASS
Band2	5MHz	16QAM	18625	1RB#24	21.47	20.60	33.00	PASS
Band2	5MHz	16QAM	18625	12RB#13	20.37	19.50	33.00	PASS
Band2	5MHz	16QAM	18625	12RB#0	20.22	19.35	33.00	PASS
Band2	5MHz	16QAM	18625	12RB#6	20.37	19.50	33.00	PASS
Band2	5MHz	16QAM	18625	25RB#0	20.29	19.42	33.00	PASS
Band2	5MHz	16QAM	18900	1RB#0	21.44	20.57	33.00	PASS
Band2	5MHz	16QAM	18900	1RB#12	21.69	20.82	33.00	PASS
Band2	5MHz	16QAM	18900	1RB#24	21.41	20.54	33.00	PASS
Band2	5MHz	16QAM	18900	12RB#0	20.37	19.50	33.00	PASS
Band2	5MHz	16QAM	18900	12RB#13	20.38	19.51	33.00	PASS
Band2	5MHz	16QAM	18900	12RB#6	20.38	19.51	33.00	PASS
Band2	5MHz	16QAM	18900	25RB#0	20.33	19.46	33.00	PASS
Band2	5MHz	16QAM	19175	1RB#0	21.45	20.58	33.00	PASS
Band2	5MHz	16QAM	19175	1RB#24	21.49	20.62	33.00	PASS
Band2	5MHz	16QAM	19175	1RB#12	21.84	20.97	33.00	PASS
Band2	5MHz	16QAM	19175	12RB#0	20.41	19.54	33.00	PASS
Band2	5MHz	16QAM	19175	12RB#6	20.43	19.56	33.00	PASS
Band2	5MHz	16QAM	19175	12RB#13	20.29	19.42	33.00	PASS
Band2	5MHz	16QAM	19175	25RB#0	20.33	19.46	33.00	PASS
Band2	10MHz	QPSK	18650	1RB#0	22.33	21.46	33.00	PASS
Band2	10MHz	QPSK	18650	1RB#24	22.38	21.51	33.00	PASS
Band2	10MHz	QPSK	18650	1RB#49	22.28	21.41	33.00	PASS
Band2	10MHz	QPSK	18650	25RB#12	21.35	20.48	33.00	PASS
Band2	10MHz	QPSK	18650	25RB#0	21.25	20.38	33.00	PASS
Band2	10MHz	QPSK	18650	25RB#25	21.40	20.53	33.00	PASS
Band2	10MHz	QPSK	18650	50RB#0	21.33	20.46	33.00	PASS
Band2	10MHz	QPSK	18900	1RB#49	22.29	21.42	33.00	PASS
Band2	10MHz	QPSK	18900	1RB#0	22.33	21.46	33.00	PASS
Band2	10MHz	QPSK	18900	1RB#24	22.41	21.54	33.00	PASS
Band2	10MHz	QPSK	18900	25RB#0	21.41	20.54	33.00	PASS
Band2	10MHz	QPSK	18900	25RB#12	21.35	20.48	33.00	PASS
Band2	10MHz	QPSK	18900	25RB#25	21.41	20.54	33.00	PASS
Band2	10MHz	QPSK	18900	50RB#0	21.39	20.52	33.00	PASS
Band2	10MHz	QPSK	19150	1RB#24	22.47	21.60	33.00	PASS
Band2	10MHz	QPSK	19150	1RB#49	22.31	21.44	33.00	PASS
Band2	10MHz	QPSK	19150	1RB#0	22.36	21.49	33.00	PASS
Band2	10MHz	QPSK	19150	25RB#0	21.49	20.62	33.00	PASS
Band2	10MHz	QPSK	19150	25RB#25	21.30	20.43	33.00	PASS
Band2	10MHz	QPSK	19150	25RB#12	21.43	20.56	33.00	PASS
Band2	10MHz	QPSK	19150	50RB#0	21.39	20.52	33.00	PASS
Band2	10MHz	16QAM	18650	1RB#24	21.60	20.73	33.00	PASS
Band2	10MHz	16QAM	18650	1RB#49	21.55	20.68	33.00	PASS
Band2	10MHz	16QAM	18650	1RB#0	21.63	20.76	33.00	PASS
Band2	10MHz	16QAM	18650	25RB#0	20.25	19.38	33.00	PASS

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Band2	10MHz	16QAM	18650	25RB#12	20.32	19.45	33.00	PASS
Band2	10MHz	16QAM	18650	25RB#25	20.38	19.51	33.00	PASS
Band2	10MHz	16QAM	18650	50RB#0	20.32	19.45	33.00	PASS
Band2	10MHz	16QAM	18900	1RB#49	21.53	20.66	33.00	PASS
Band2	10MHz	16QAM	18900	1RB#0	21.61	20.74	33.00	PASS
Band2	10MHz	16QAM	18900	1RB#24	21.76	20.89	33.00	PASS
Band2	10MHz	16QAM	18900	25RB#25	20.41	19.54	33.00	PASS
Band2	10MHz	16QAM	18900	25RB#12	20.34	19.47	33.00	PASS
Band2	10MHz	16QAM	18900	25RB#0	20.39	19.52	33.00	PASS
Band2	10MHz	16QAM	18900	50RB#0	20.36	19.49	33.00	PASS
Band2	10MHz	16QAM	19150	1RB#24	21.75	20.88	33.00	PASS
Band2	10MHz	16QAM	19150	1RB#49	21.55	20.68	33.00	PASS
Band2	10MHz	16QAM	19150	1RB#0	21.65	20.78	33.00	PASS
Band2	10MHz	16QAM	19150	25RB#25	20.31	19.44	33.00	PASS
Band2	10MHz	16QAM	19150	25RB#12	20.42	19.55	33.00	PASS
Band2	10MHz	16QAM	19150	25RB#0	20.48	19.61	33.00	PASS
Band2	10MHz	16QAM	19150	50RB#0	20.39	19.52	33.00	PASS
Band2	15MHz	QPSK	18675	1RB#74	22.24	21.37	33.00	PASS
Band2	15MHz	QPSK	18675	1RB#0	22.30	21.43	33.00	PASS
Band2	15MHz	QPSK	18675	1RB#38	22.36	21.49	33.00	PASS
Band2	15MHz	QPSK	18675	36RB#39	21.39	20.52	33.00	PASS
Band2	15MHz	QPSK	18675	36RB#18	21.37	20.50	33.00	PASS
Band2	15MHz	QPSK	18675	36RB#0	21.27	20.40	33.00	PASS
Band2	15MHz	QPSK	18675	75RB#0	21.35	20.48	33.00	PASS
Band2	15MHz	QPSK	18900	1RB#74	22.25	21.38	33.00	PASS
Band2	15MHz	QPSK	18900	1RB#38	22.37	21.50	33.00	PASS
Band2	15MHz	QPSK	18900	1RB#0	22.26	21.39	33.00	PASS
Band2	15MHz	QPSK	18900	36RB#0	21.41	20.54	33.00	PASS
Band2	15MHz	QPSK	18900	36RB#39	21.40	20.53	33.00	PASS
Band2	15MHz	QPSK	18900	36RB#18	21.37	20.50	33.00	PASS
Band2	15MHz	QPSK	18900	75RB#0	21.38	20.51	33.00	PASS
Band2	15MHz	QPSK	19125	1RB#74	22.29	21.42	33.00	PASS
Band2	15MHz	QPSK	19125	1RB#38	22.38	21.51	33.00	PASS
Band2	15MHz	QPSK	19125	1RB#0	22.30	21.43	33.00	PASS
Band2	15MHz	QPSK	19125	36RB#18	21.47	20.60	33.00	PASS
Band2	15MHz	QPSK	19125	36RB#0	21.44	20.57	33.00	PASS
Band2	15MHz	QPSK	19125	36RB#39	21.35	20.48	33.00	PASS
Band2	15MHz	QPSK	19125	75RB#0	21.40	20.53	33.00	PASS
Band2	15MHz	16QAM	18675	1RB#0	21.54	20.67	33.00	PASS
Band2	15MHz	16QAM	18675	1RB#74	21.60	20.73	33.00	PASS
Band2	15MHz	16QAM	18675	1RB#38	21.65	20.78	33.00	PASS
Band2	15MHz	16QAM	18675	36RB#0	20.26	19.39	33.00	PASS
Band2	15MHz	16QAM	18675	36RB#39	20.32	19.45	33.00	PASS
Band2	15MHz	16QAM	18675	36RB#18	20.31	19.44	33.00	PASS
Band2	15MHz	16QAM	18675	75RB#0	20.32	19.45	33.00	PASS
Band2	15MHz	16QAM	18900	1RB#38	21.66	20.79	33.00	PASS
Band2	15MHz	16QAM	18900	1RB#74	21.61	20.74	33.00	PASS
Band2	15MHz	16QAM	18900	1RB#0	21.48	20.61	33.00	PASS
Band2	15MHz	16QAM	18900	36RB#18	20.35	19.48	33.00	PASS
Band2	15MHz	16QAM	18900	36RB#0	20.35	19.48	33.00	PASS
Band2	15MHz	16QAM	18900	36RB#39	20.35	19.48	33.00	PASS
Band2	15MHz	16QAM	18900	75RB#0	20.36	19.49	33.00	PASS
Band2	15MHz	16QAM	19125	1RB#74	21.58	20.71	33.00	PASS

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Band2	15MHz	16QAM	19125	1RB#0	21.58	20.71	33.00	PASS
Band2	15MHz	16QAM	19125	1RB#38	21.67	20.80	33.00	PASS
Band2	15MHz	16QAM	19125	36RB#0	20.39	19.52	33.00	PASS
Band2	15MHz	16QAM	19125	36RB#39	20.33	19.46	33.00	PASS
Band2	15MHz	16QAM	19125	36RB#18	20.43	19.56	33.00	PASS
Band2	15MHz	16QAM	19125	75RB#0	20.40	19.53	33.00	PASS
Band2	20MHz	QPSK	18700	1RB#99	22.20	21.33	33.00	PASS
Band2	20MHz	QPSK	18700	1RB#49	22.44	21.57	33.00	PASS
Band2	20MHz	QPSK	18700	1RB#0	22.24	21.37	33.00	PASS
Band2	20MHz	QPSK	18700	50RB#25	21.37	20.50	33.00	PASS
Band2	20MHz	QPSK	18700	50RB#0	21.19	20.32	33.00	PASS
Band2	20MHz	QPSK	18700	50RB#50	21.35	20.48	33.00	PASS
Band2	20MHz	QPSK	18700	100RB#0	21.27	20.40	33.00	PASS
Band2	20MHz	QPSK	18900	1RB#99	22.15	21.28	33.00	PASS
Band2	20MHz	QPSK	18900	1RB#0	22.18	21.31	33.00	PASS
Band2	20MHz	QPSK	18900	1RB#49	22.46	21.59	33.00	PASS
Band2	20MHz	QPSK	18900	50RB#25	21.36	20.49	33.00	PASS
Band2	20MHz	QPSK	18900	50RB#0	21.39	20.52	33.00	PASS
Band2	20MHz	QPSK	18900	50RB#50	21.37	20.50	33.00	PASS
Band2	20MHz	QPSK	18900	100RB#0	21.39	20.52	33.00	PASS
Band2	20MHz	QPSK	19100	1RB#0	22.23	21.36	33.00	PASS
Band2	20MHz	QPSK	19100	1RB#49	22.44	21.57	33.00	PASS
Band2	20MHz	QPSK	19100	1RB#99	22.22	21.35	33.00	PASS
Band2	20MHz	QPSK	19100	50RB#0	21.38	20.51	33.00	PASS
Band2	20MHz	QPSK	19100	50RB#25	21.44	20.57	33.00	PASS
Band2	20MHz	QPSK	19100	50RB#50	21.26	20.39	33.00	PASS
Band2	20MHz	QPSK	19100	100RB#0	21.35	20.48	33.00	PASS
Band2	20MHz	16QAM	18700	1RB#0	21.55	20.68	33.00	PASS
Band2	20MHz	16QAM	18700	1RB#49	21.71	20.84	33.00	PASS
Band2	20MHz	16QAM	18700	1RB#99	21.50	20.63	33.00	PASS
Band2	20MHz	16QAM	18700	50RB#50	20.34	19.47	33.00	PASS
Band2	20MHz	16QAM	18700	50RB#0	20.18	19.31	33.00	PASS
Band2	20MHz	16QAM	18700	50RB#25	20.36	19.49	33.00	PASS
Band2	20MHz	16QAM	18700	100RB#0	20.26	19.39	33.00	PASS
Band2	20MHz	16QAM	18900	1RB#0	21.48	20.61	33.00	PASS
Band2	20MHz	16QAM	18900	1RB#49	21.80	20.93	33.00	PASS
Band2	20MHz	16QAM	18900	1RB#99	21.47	20.60	33.00	PASS
Band2	20MHz	16QAM	18900	50RB#0	20.41	19.54	33.00	PASS
Band2	20MHz	16QAM	18900	50RB#50	20.36	19.49	33.00	PASS
Band2	20MHz	16QAM	18900	50RB#25	20.37	19.50	33.00	PASS
Band2	20MHz	16QAM	18900	100RB#0	20.37	19.50	33.00	PASS
Band2	20MHz	16QAM	19100	1RB#0	21.49	20.62	33.00	PASS
Band2	20MHz	16QAM	19100	1RB#99	21.54	20.67	33.00	PASS
Band2	20MHz	16QAM	19100	1RB#49	21.75	20.88	33.00	PASS
Band2	20MHz	16QAM	19100	50RB#0	20.35	19.48	33.00	PASS
Band2	20MHz	16QAM	19100	50RB#25	20.42	19.55	33.00	PASS
Band2	20MHz	16QAM	19100	50RB#50	20.29	19.42	33.00	PASS
Band2	20MHz	16QAM	19100	100RB#0	20.33	19.46	33.00	PASS

Remark:

a: For getting the EIRP (Efficient Isotropic Radiated Power), the following formula should be taken to calculate it,

ERP [dBm] = Conducted Power [dBm] + Gain [dBd]

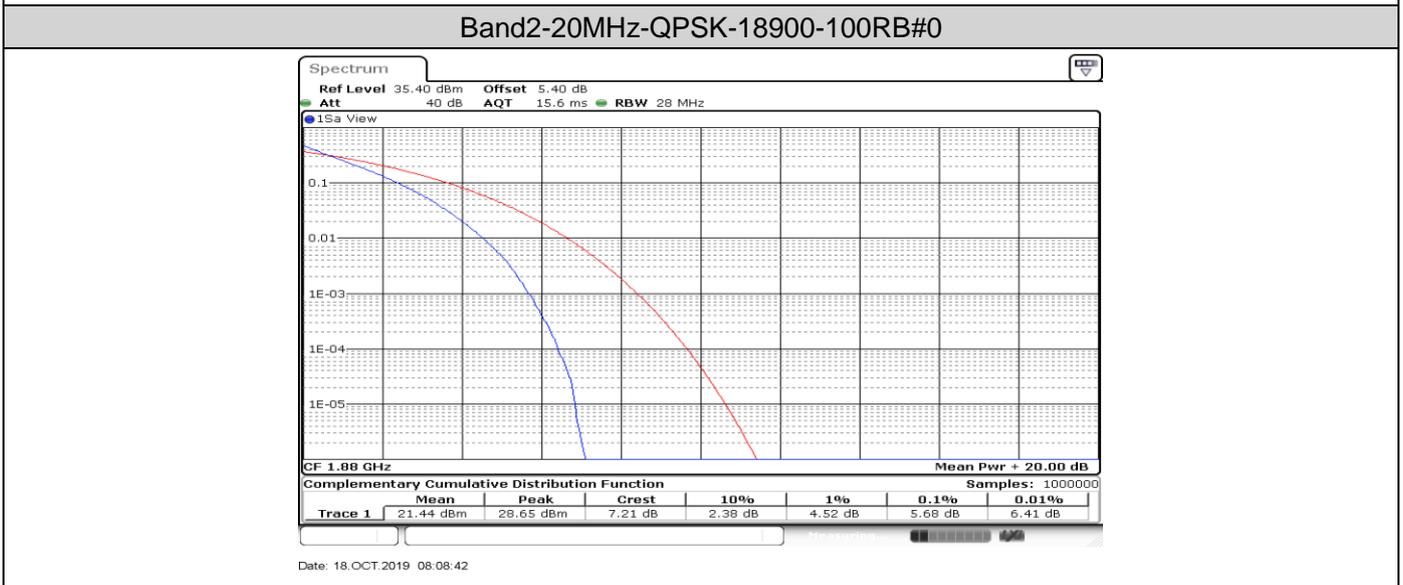
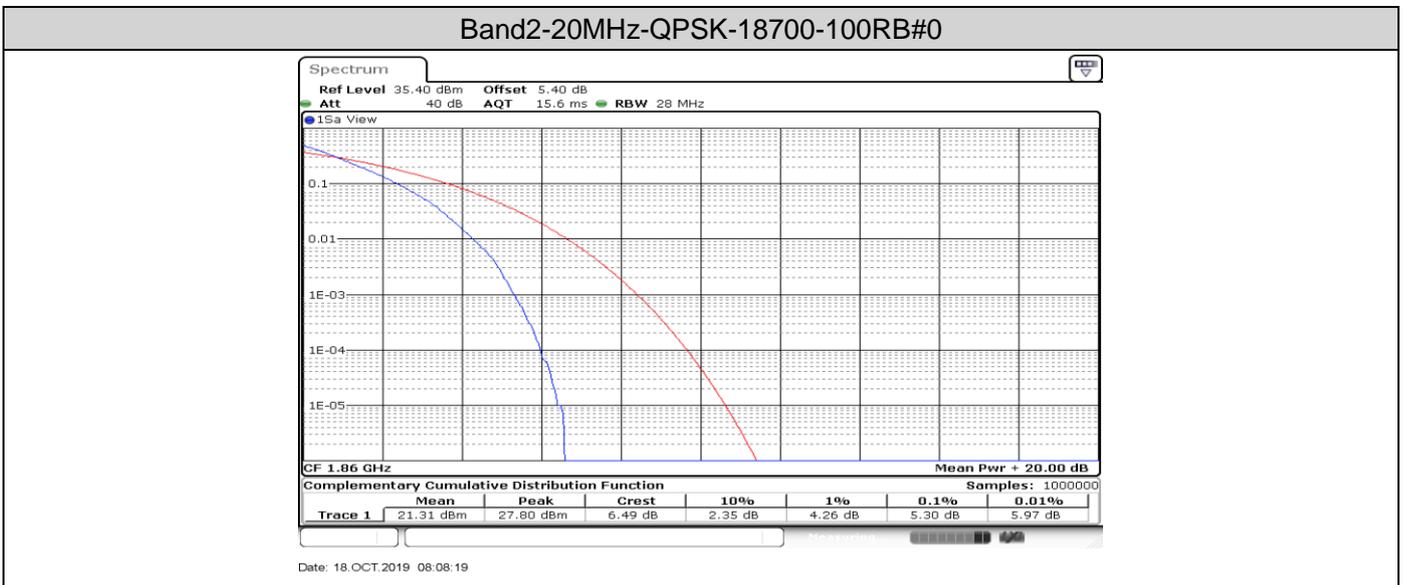
EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]

4. Peak-to-Average Ratio (CCDF)

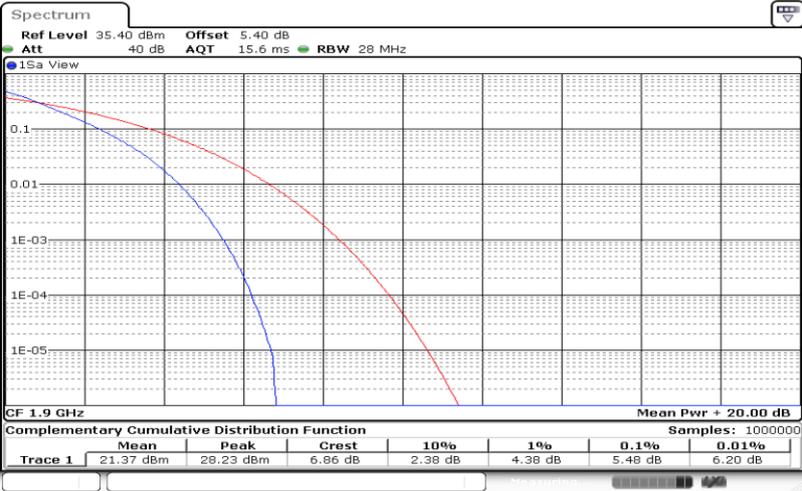
4.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band2	20MHz	QPSK	18700	100RB#0	5.30	13	PASS
Band2	20MHz	QPSK	18900	100RB#0	5.68	13	PASS
Band2	20MHz	QPSK	19100	100RB#0	5.48	13	PASS
Band2	20MHz	16QAM	18700	100RB#0	6.12	13	PASS
Band2	20MHz	16QAM	18900	100RB#0	6.38	13	PASS
Band2	20MHz	16QAM	19100	100RB#0	6.20	13	PASS

4.2. Test Plots

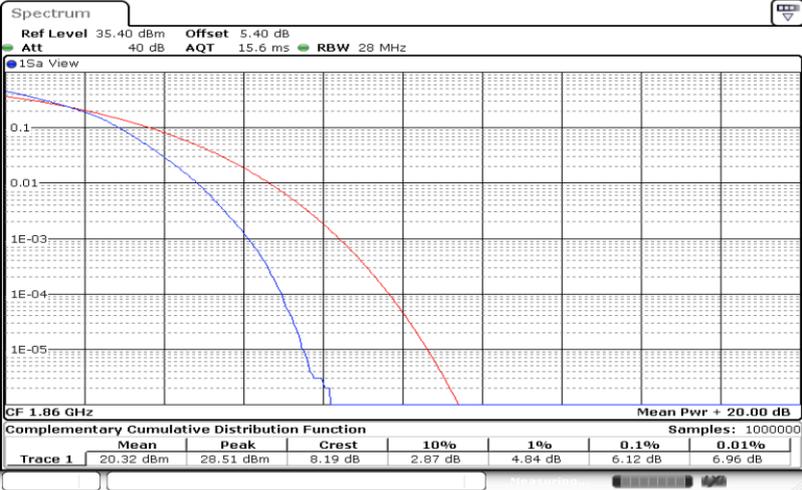


Band2-20MHz-QPSK-19100-100RB#0



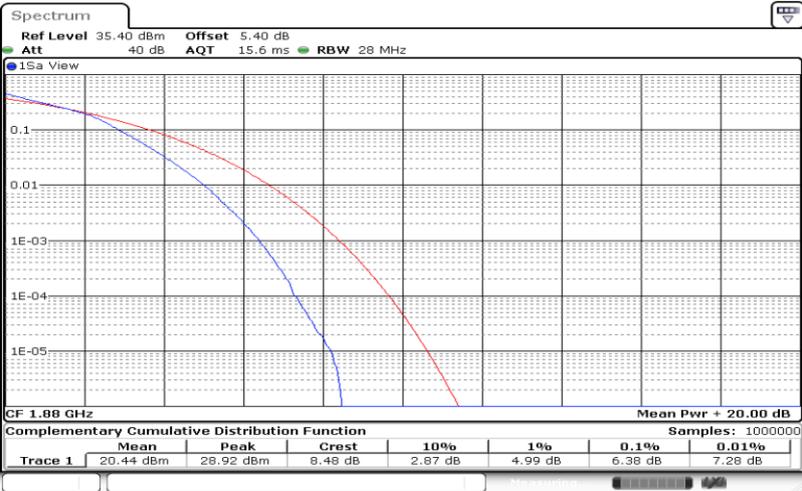
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Band2-20MHz-16QAM-18700-100RB#0



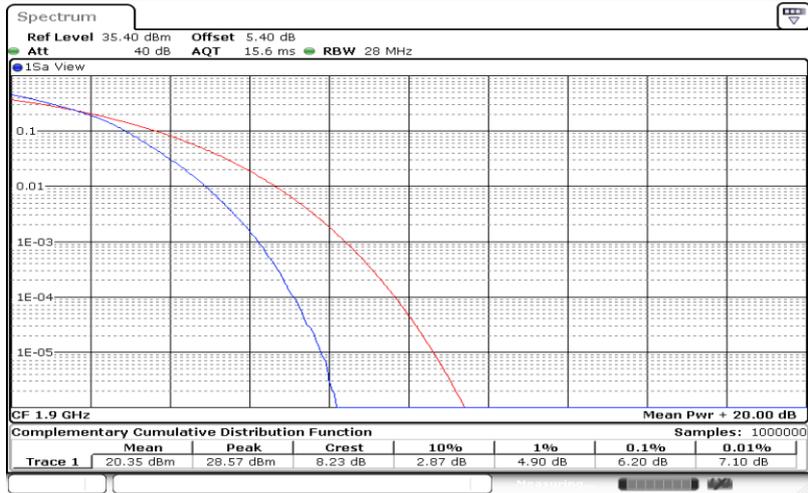
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Band2-20MHz-16QAM-18900-100RB#0



Date: 18.OCT.2019 08:08:54

Band2-20MHz-16QAM-19100-100RB#0

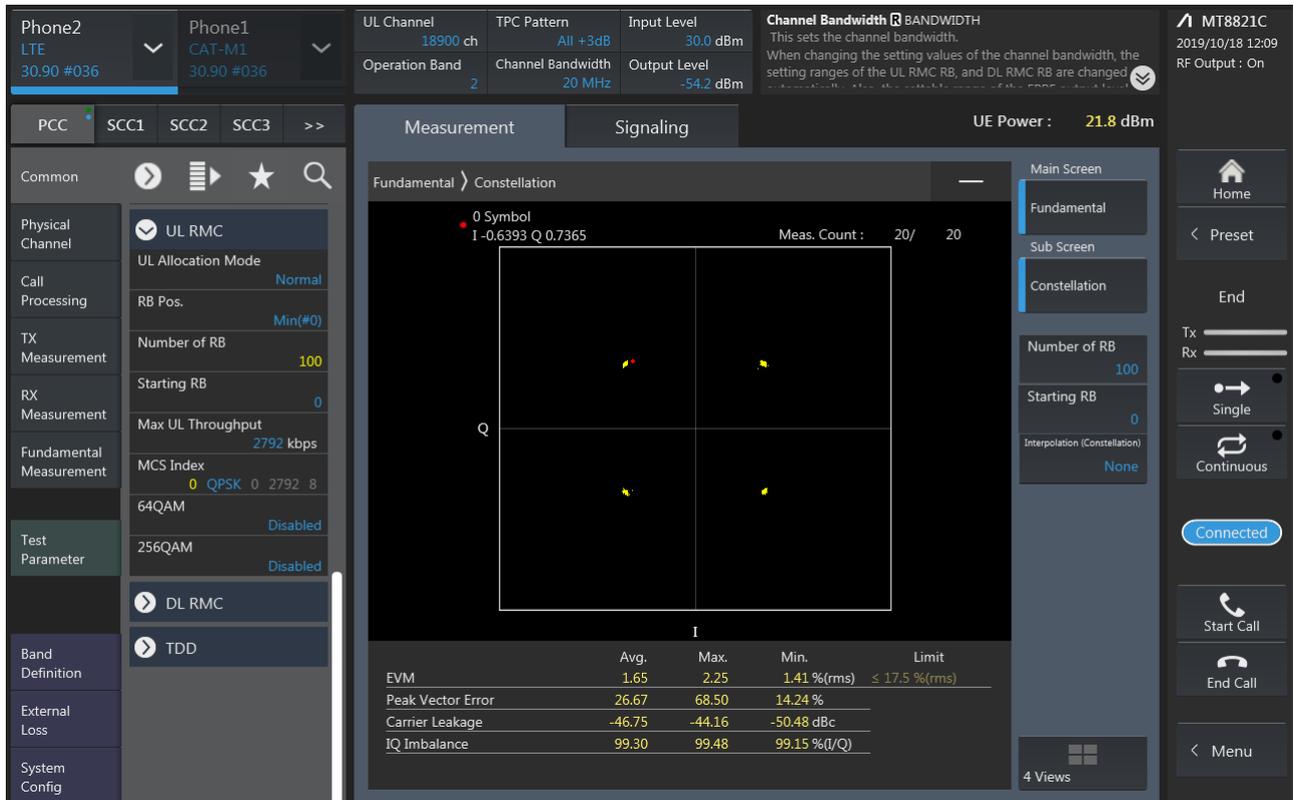


Date: 18.OCT.2019 08:09:16

5. Modulation Characteristics

5.1. Test Mode = LTE /TM1 20MHz

5.1.1. Test Channel = MCH



5.2. Test Mode = LTE /TM2 20MHz

5.2.1. Test Channel = MCH

The screenshot displays a mobile testing software interface with the following sections:

- Top Bar:** Phone2 (LTE 30.90 #036), Phone1 (CAT-M1 30.90 #036), UL Channel (18900 ch), TPC Pattern (All +3dB), Input Level (30.0 dBm), Operation Band (2), Channel Bandwidth (20 MHz), Output Level (-54.2 dBm), UL RMC - Modulation (ULRMC_MOD), and MT8821C (2019/10/18 12:09, RF Output: On).
- Measurement/Signaling:** UE Power: 20.8 dBm.
- Left Panel (Common):**
 - Physical Channel: UL RMC (UL Allocation Mode: Normal)
 - Call Processing: RB Pos. (Min(#0))
 - TX Measurement: Number of RB (100)
 - RX Measurement: Starting RB (0), Max UL Throughput (17568 kbps)
 - Fundamental Measurement: MCS Index (11 16QAM 10 17568 8), 64QAM (Disabled), 256QAM (Disabled)
 - Test Parameter: DL RMC, TDD
 - Band Definition, External Loss, System Config
- Main Display (Fundamental Constellation):**
 - 0 Symbol: I 0.3478 Q 0.9510
 - Meas. Count: 20/ 20
 - Constellation diagram showing 16 points in a 4x4 grid.
 - Measurement Table:
- Right Panel (Main Screen):**
 - Fundamental (Main Screen)
 - Sub Screen: Constellation
 - Number of RB: 100
 - Starting RB: 0
 - Interpolation (Constellation): None
 - Buttons: Home, Preset, End, Single, Continuous, Connected, Start Call, End Call, Menu

	Avg.	Max.	Min.	Limit
EVM	2.25	2.36	2.13 %(rms)	≤ 12.5 %(rms)
Peak Vector Error	23.54	68.68	11.76 %	
Carrier Leakage	-48.14	-43.27	-51.89 dBc	
IQ Imbalance	99.77	100.52	99.19 %(I/Q)	

6. 26dB Bandwidth and Occupied Bandwidth

6.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band2	1.4MHz	QPSK	18607	6RB#0	1.088	1.284	PASS
Band2	1.4MHz	QPSK	18900	6RB#0	1.091	1.290	PASS
Band2	1.4MHz	QPSK	19193	6RB#0	1.091	1.290	PASS
Band2	1.4MHz	16QAM	18607	6RB#0	1.088	1.278	PASS
Band2	1.4MHz	16QAM	18900	6RB#0	1.091	1.290	PASS
Band2	1.4MHz	16QAM	19193	6RB#0	1.091	1.281	PASS
Band2	3MHz	QPSK	18615	15RB#0	2.691	2.928	PASS
Band2	3MHz	QPSK	18900	15RB#0	2.691	2.958	PASS
Band2	3MHz	QPSK	19185	15RB#0	2.691	2.922	PASS
Band2	3MHz	16QAM	18615	15RB#0	2.679	2.898	PASS
Band2	3MHz	16QAM	18900	15RB#0	2.679	2.904	PASS
Band2	3MHz	16QAM	19185	15RB#0	2.673	2.904	PASS
Band2	5MHz	QPSK	18625	25RB#0	4.466	4.840	PASS
Band2	5MHz	QPSK	18900	25RB#0	4.466	5.020	PASS
Band2	5MHz	QPSK	19175	25RB#0	4.466	4.850	PASS
Band2	5MHz	16QAM	18625	25RB#0	4.466	4.870	PASS
Band2	5MHz	16QAM	18900	25RB#0	4.486	4.870	PASS
Band2	5MHz	16QAM	19175	25RB#0	4.476	4.850	PASS
Band2	10MHz	QPSK	18650	50RB#0	8.911	9.620	PASS
Band2	10MHz	QPSK	18900	50RB#0	8.931	9.720	PASS
Band2	10MHz	QPSK	19150	50RB#0	8.911	9.580	PASS
Band2	10MHz	16QAM	18650	50RB#0	8.931	9.660	PASS
Band2	10MHz	16QAM	18900	50RB#0	8.951	10.000	PASS
Band2	10MHz	16QAM	19150	50RB#0	8.931	9.880	PASS
Band2	15MHz	QPSK	18675	75RB#0	13.427	14.970	PASS
Band2	15MHz	QPSK	18900	75RB#0	13.487	14.700	PASS
Band2	15MHz	QPSK	19125	75RB#0	13.457	14.610	PASS
Band2	15MHz	16QAM	18675	75RB#0	13.427	14.670	PASS
Band2	15MHz	16QAM	18900	75RB#0	13.487	14.730	PASS
Band2	15MHz	16QAM	19125	75RB#0	13.457	14.670	PASS
Band2	20MHz	QPSK	18700	100RB#0	17.822	19.400	PASS
Band2	20MHz	QPSK	18900	100RB#0	17.902	19.360	PASS
Band2	20MHz	QPSK	19100	100RB#0	17.902	19.960	PASS
Band2	20MHz	16QAM	18700	100RB#0	17.862	19.240	PASS
Band2	20MHz	16QAM	18900	100RB#0	17.902	19.960	PASS
Band2	20MHz	16QAM	19100	100RB#0	17.862	19.240	PASS

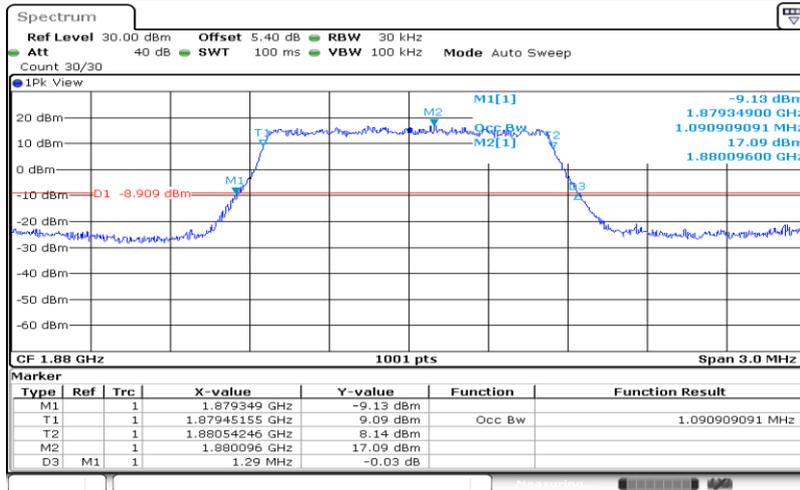
6.2. Test Plots

Band2-1.4MHz-QPSK-18607-6RB#0-1.088



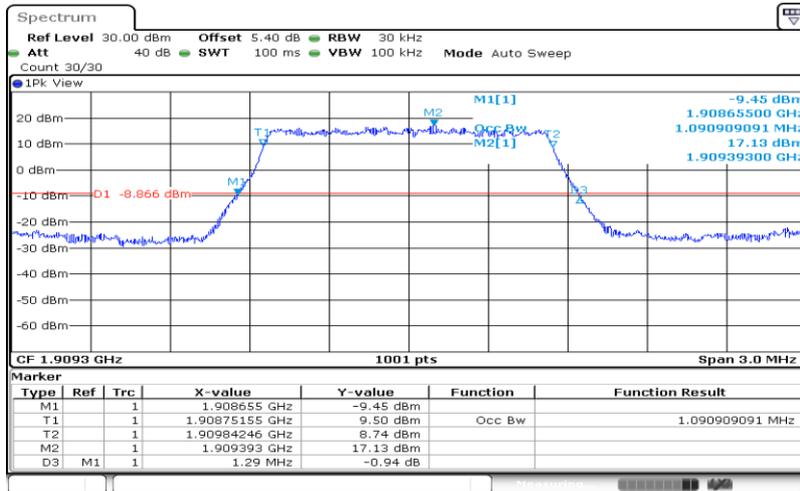
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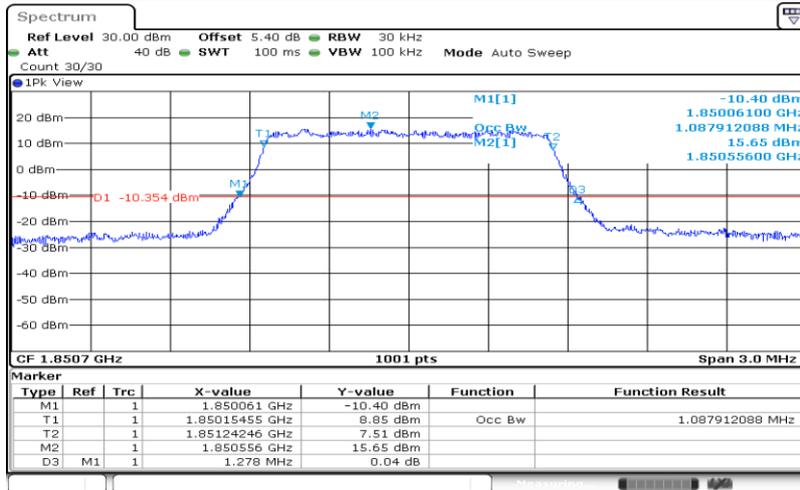
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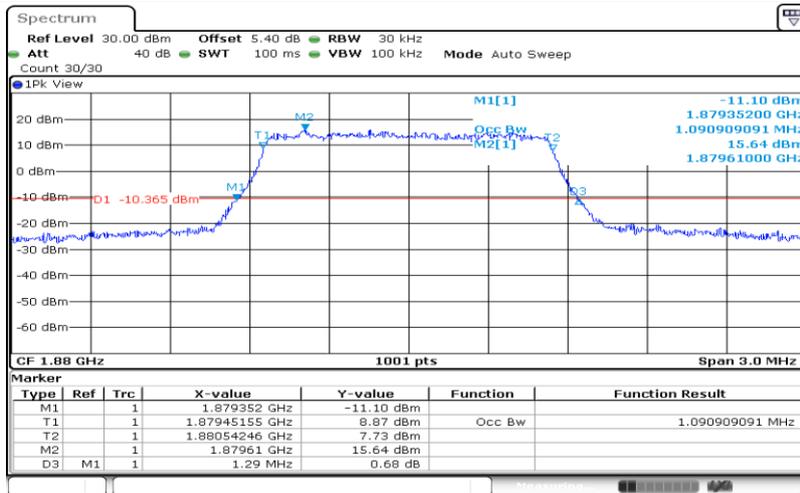
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Band2-1.4MHz-16QAM-18607-6RB#0-1.088



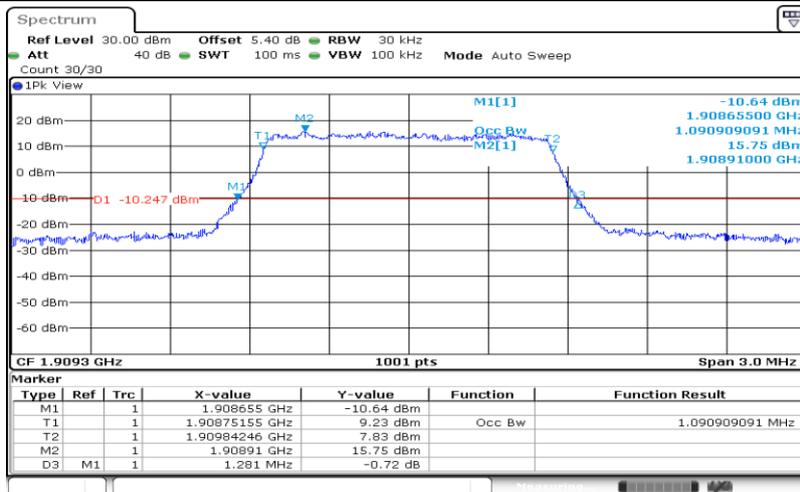
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Band2-1.4MHz-16QAM-18900-6RB#0-1.091



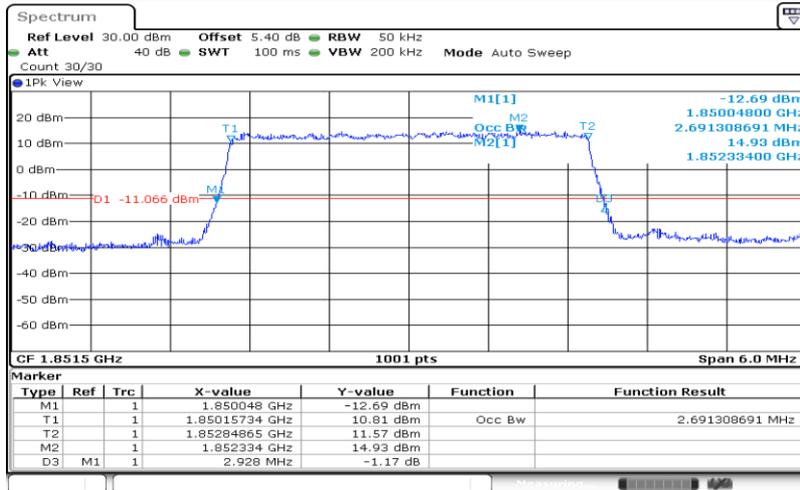
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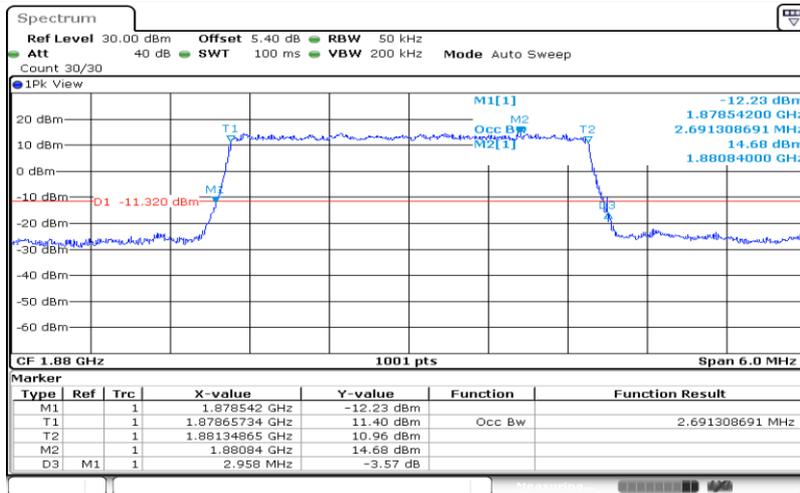
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Band2-3MHz-QPSK-18615-15RB#0-2.691



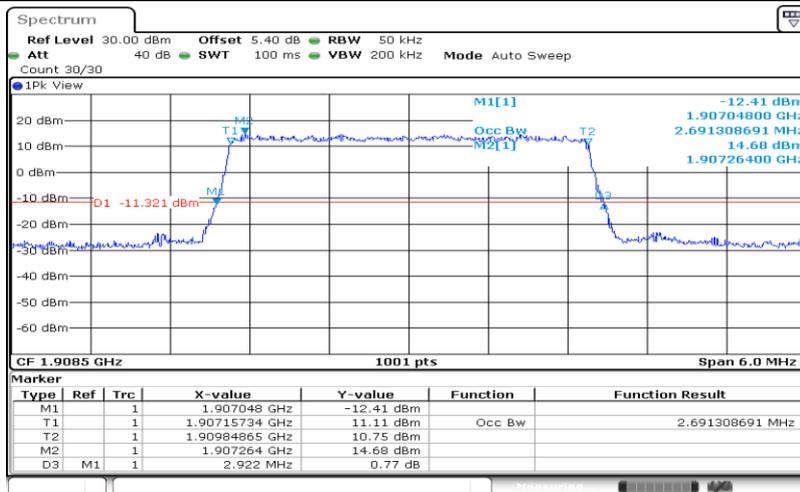
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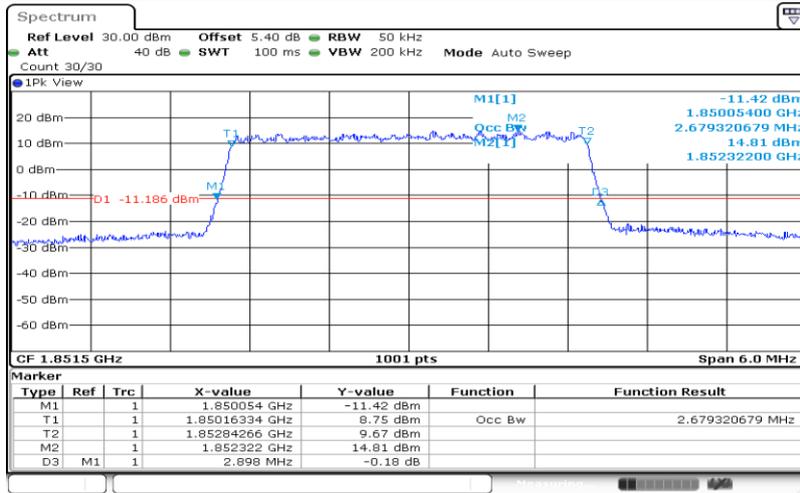
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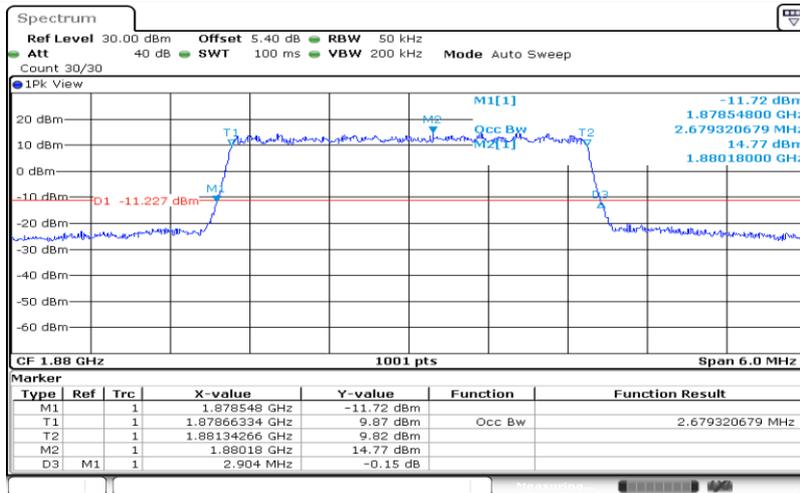
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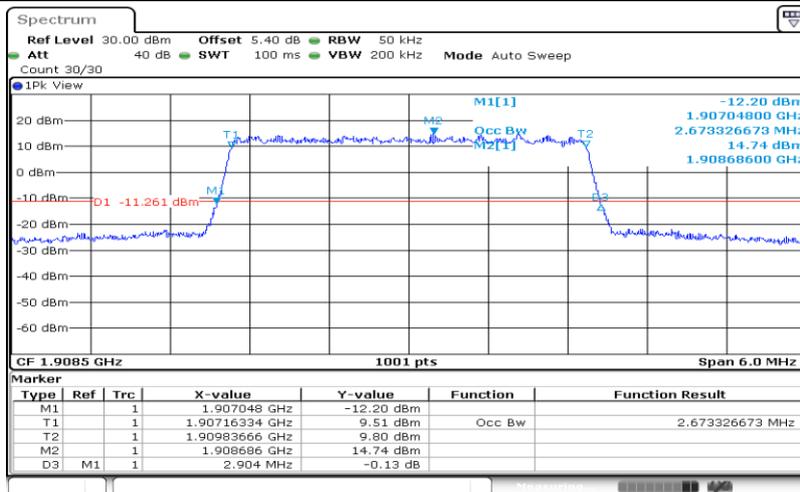
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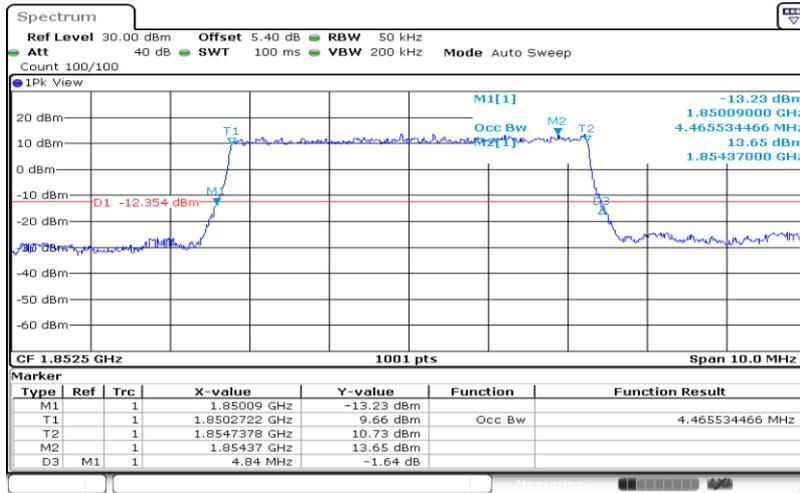
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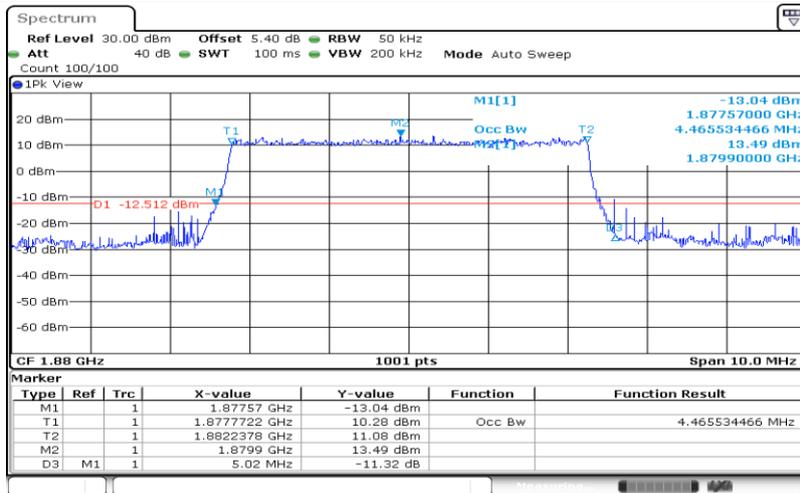
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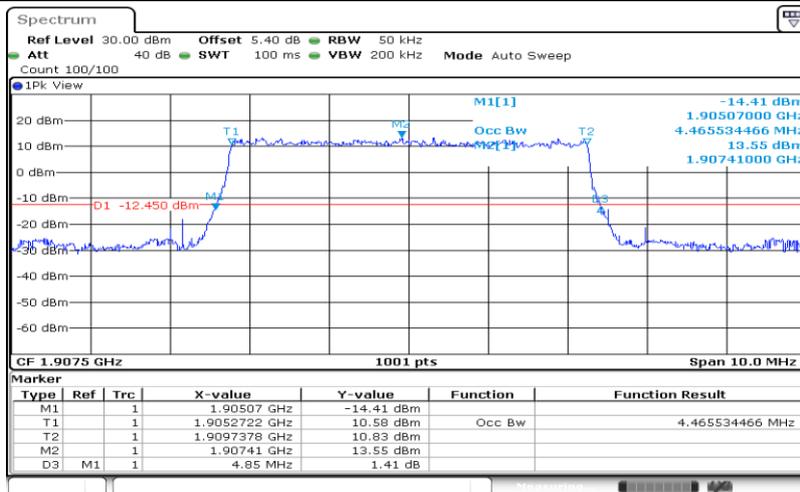
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Band2-5MHz-QPSK-18900-25RB#0-4.466



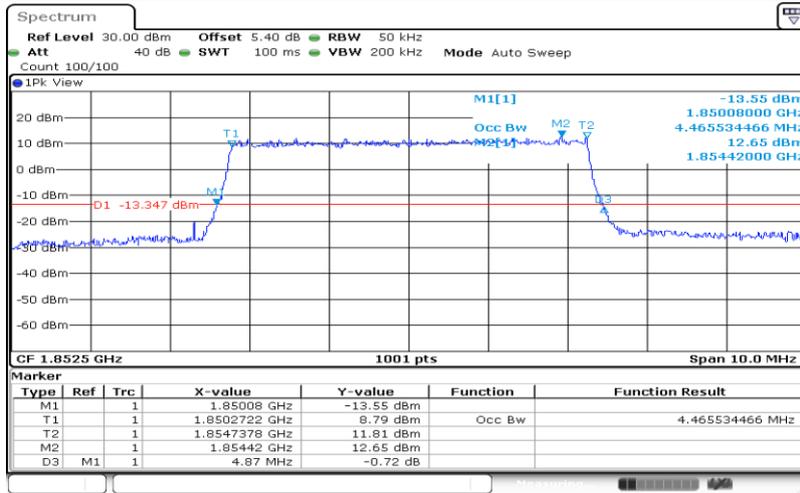
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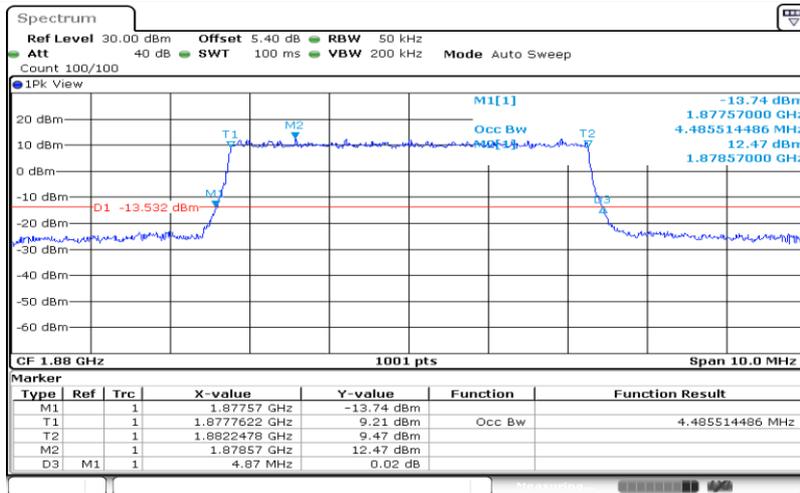
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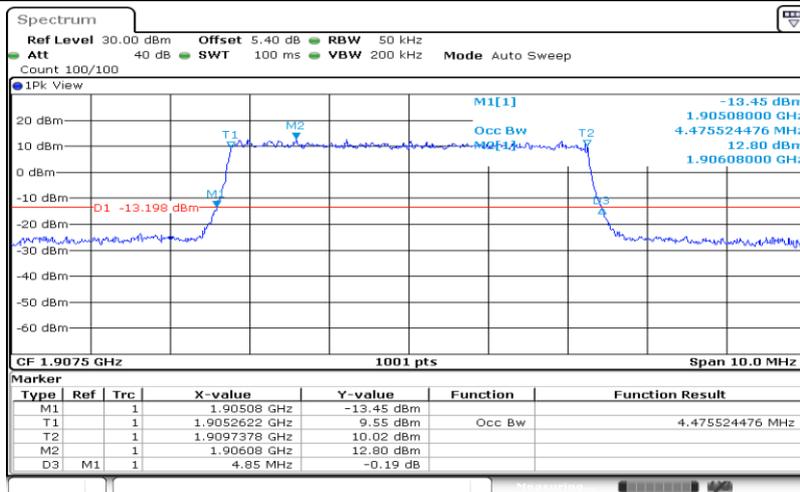
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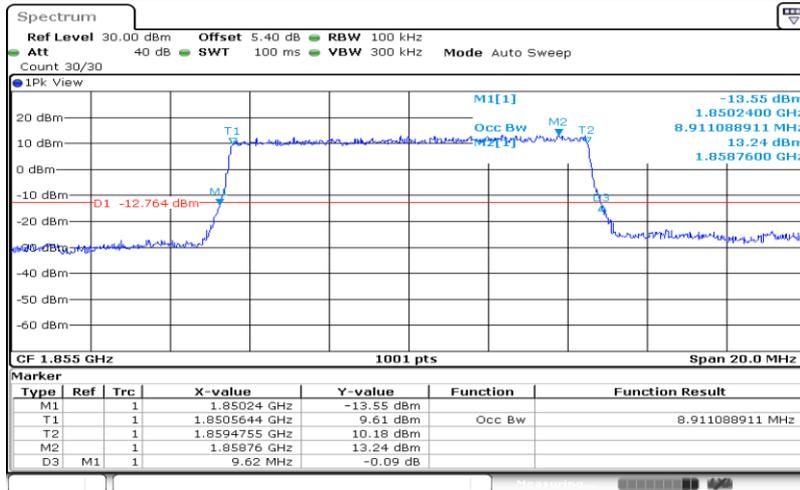
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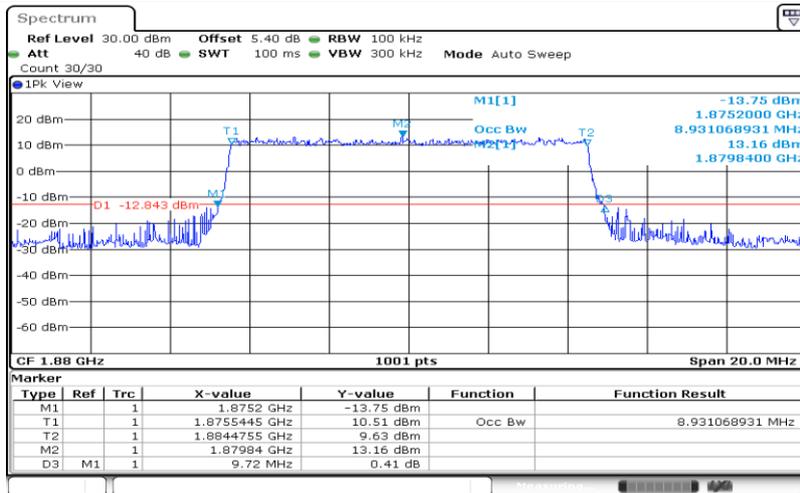
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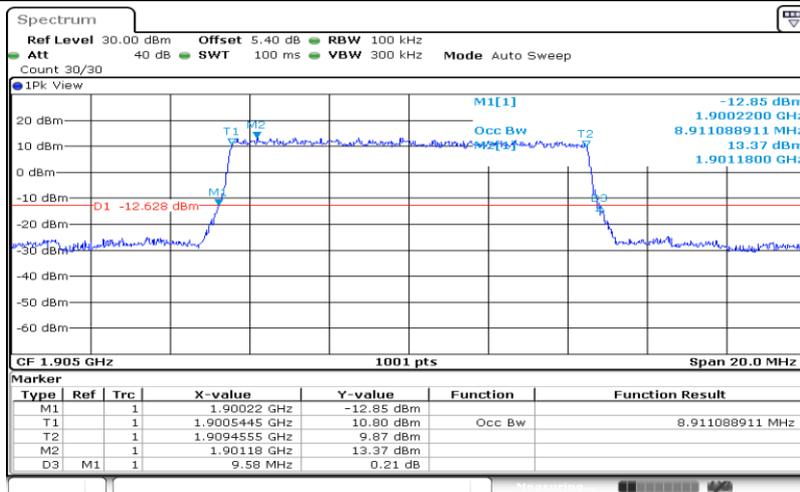
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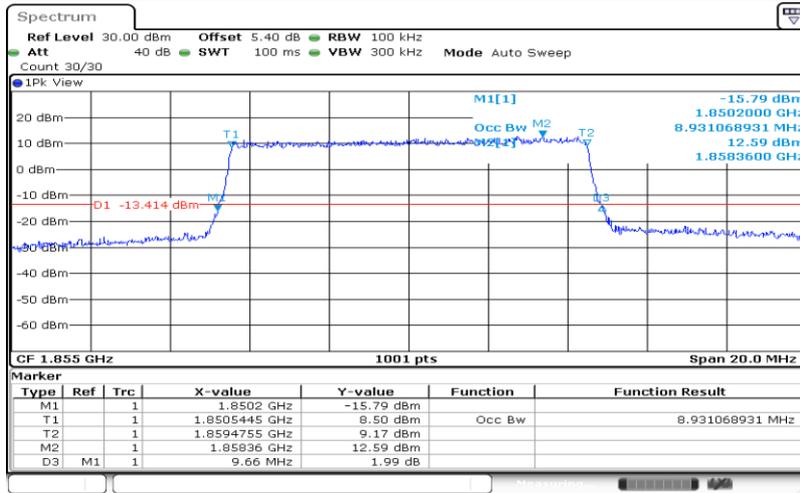
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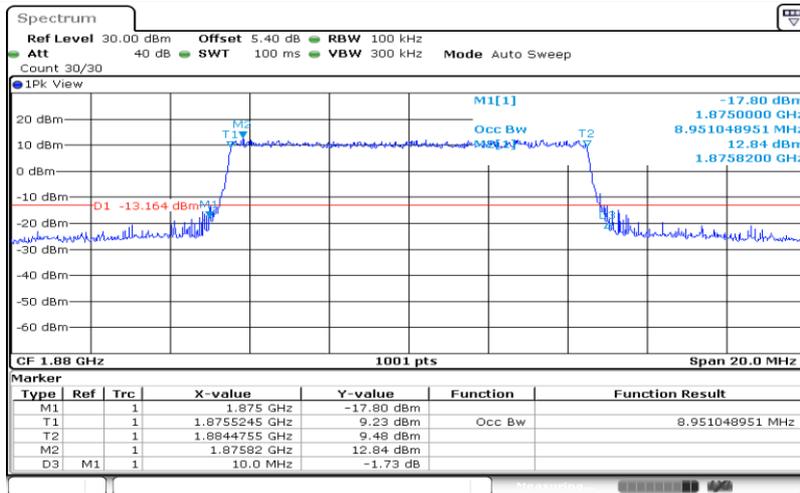
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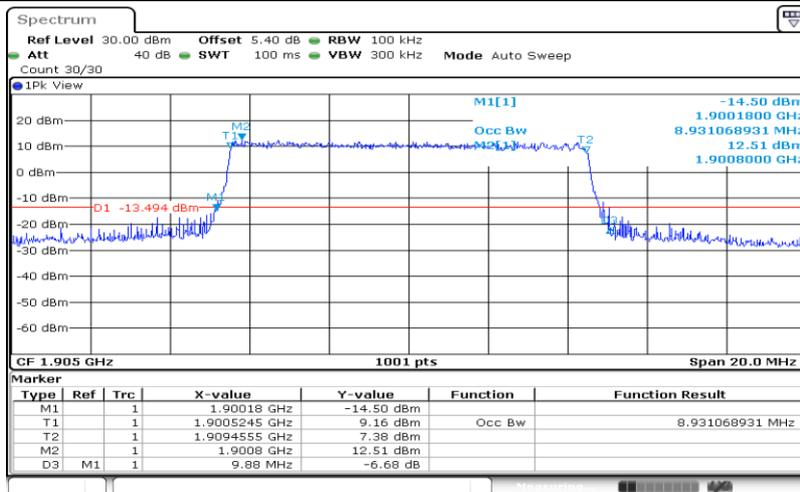
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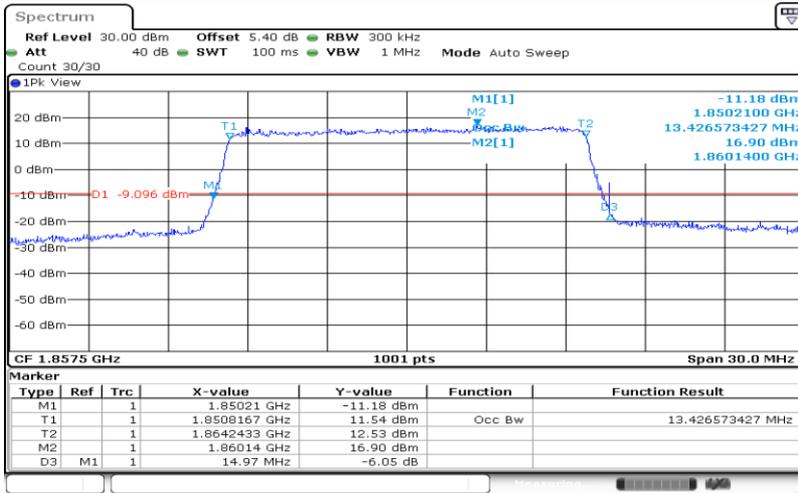
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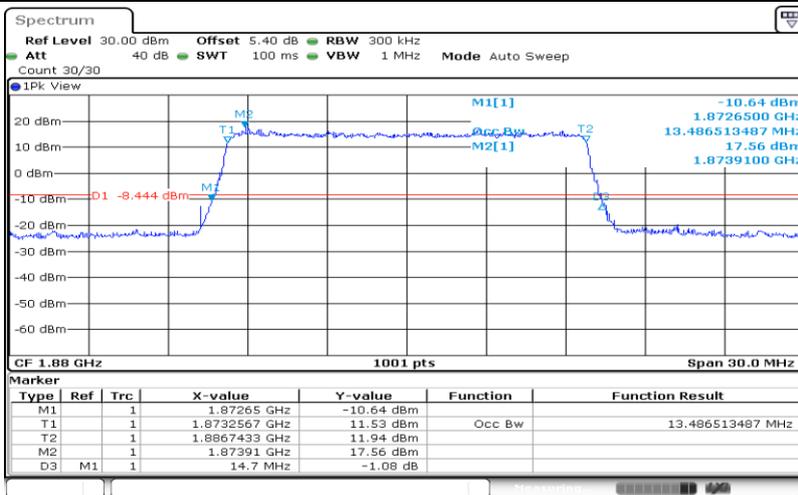
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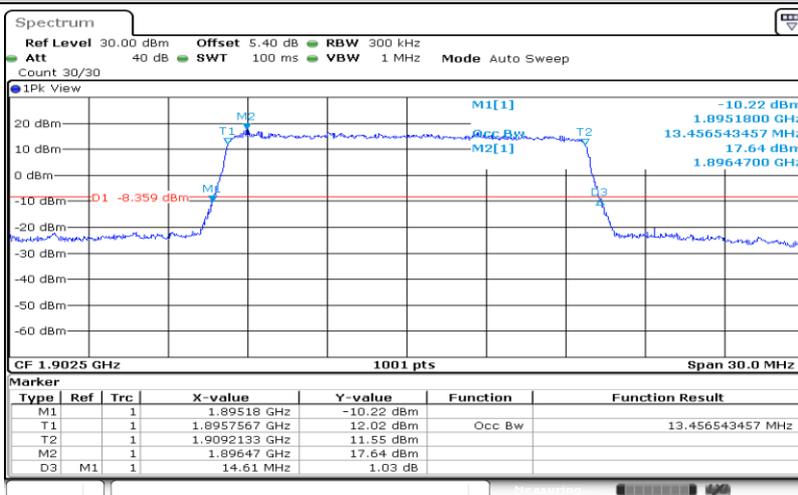
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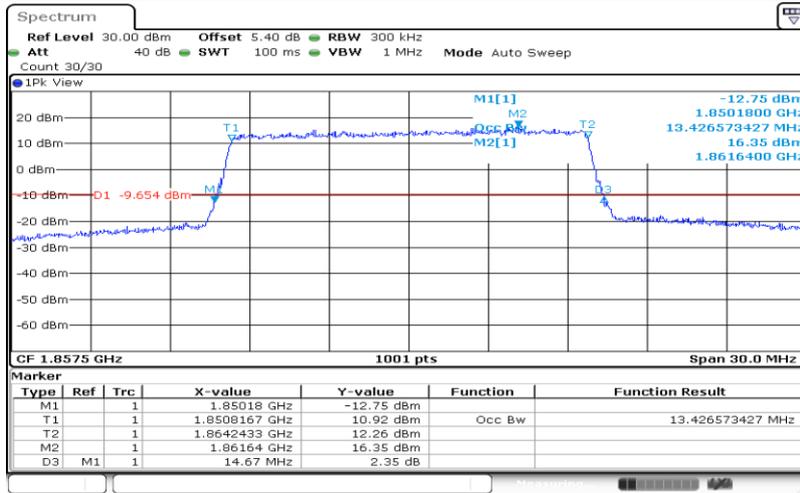
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Band2-15MHz-QPSK-19125-75RB#0-13.457



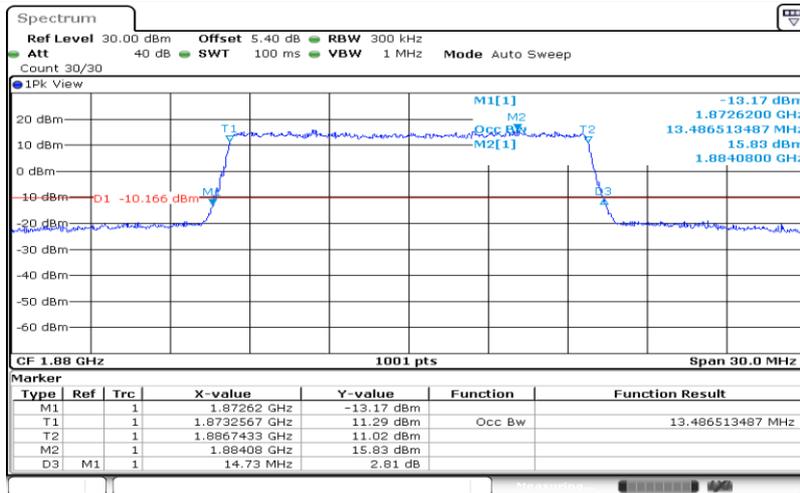
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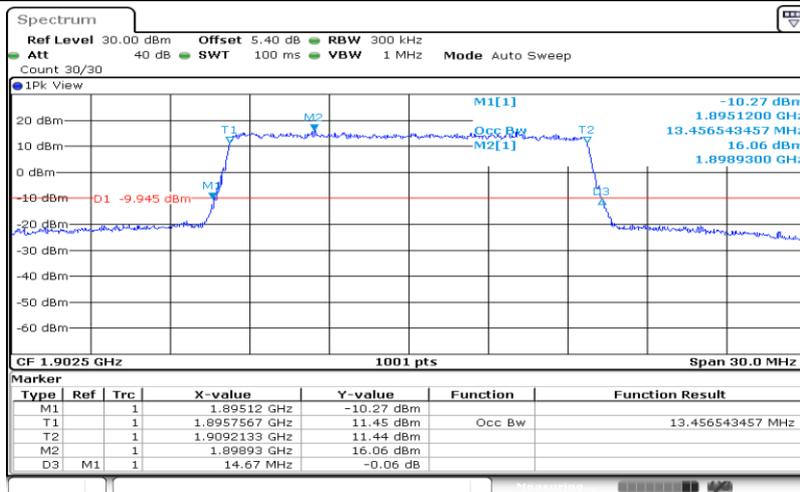
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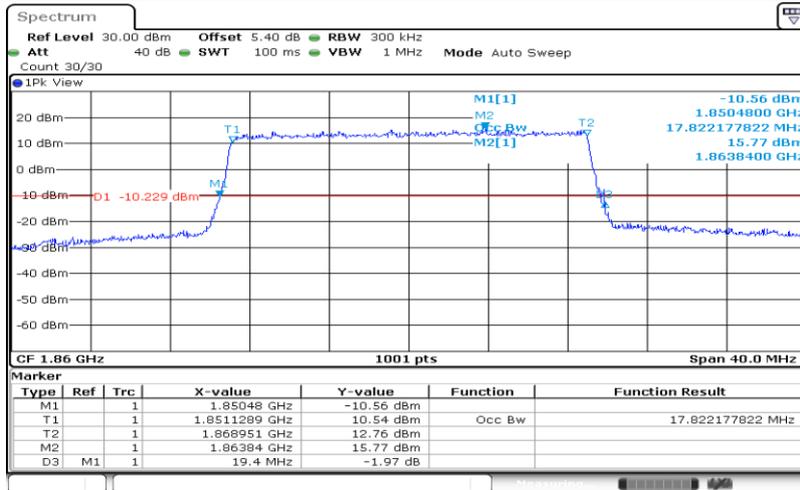
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Band2-15MHz-16QAM-19125-75RB#0-13.457



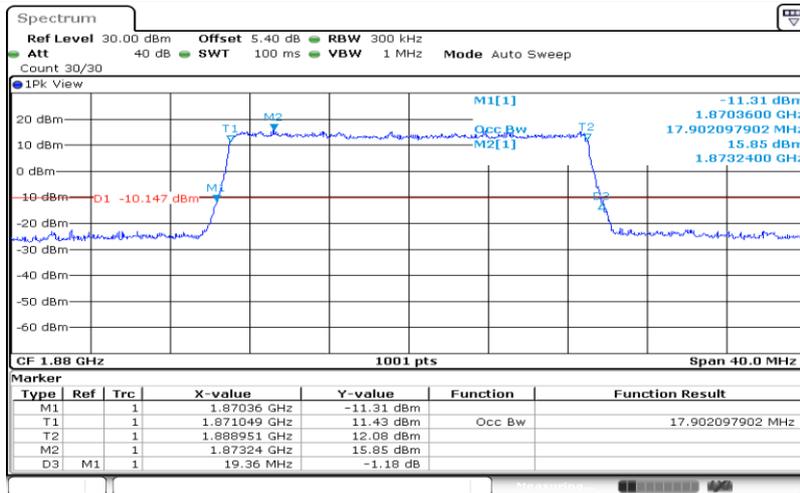
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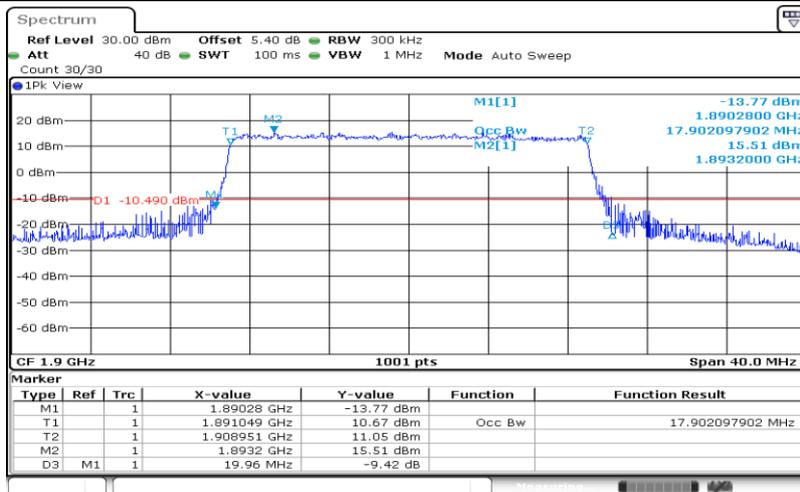
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Band2-20MHz-QPSK-18900-100RB#0-17.902



Date: 18.OCT.2019 07:38:55

Band2-20MHz-QPSK-19100-100RB#0-17.902



Date: 18.OCT.2019 07:39:21