

Appendix B.4

E-UTRA Band 4

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	2018/9/2	2019/9/2
Low Noise Amplifier (100MHz-18GHz)	Black Diamond Series	BDLNA-0118-352810	SEM005-05	2018/9/2	2019/9/2
Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	EMC2063	2018/10/20	2019/10/19
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
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	W005-02	2018/11/2	2019/11/1

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
Band4	1.4MHz	QPSK	19957	1RB#0	23.06	22.06	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#2	23.21	22.21	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	23.10	22.10	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#0	23.20	22.20	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#1	23.25	22.25	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#3	23.21	22.21	30.00	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	22.23	21.23	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	22.96	21.96	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	23.13	22.13	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	22.94	21.94	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#0	23.08	22.08	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#1	23.13	22.13	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#3	23.09	22.09	30.00	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	22.10	21.10	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	23.10	22.10	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	23.30	22.30	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	23.13	22.13	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#0	23.24	22.24	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#1	23.30	22.30	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#3	23.25	22.25	30.00	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	22.27	21.27	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	22.38	21.38	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	22.54	21.54	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	22.37	21.37	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#0	22.32	21.32	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#1	22.35	21.35	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#3	22.33	21.33	30.00	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	21.36	20.36	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	22.28	21.28	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	22.37	21.37	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	22.23	21.23	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#0	22.13	21.13	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#1	22.21	21.21	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#3	22.14	21.14	30.00	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	21.19	20.19	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	22.44	21.44	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	22.45	21.45	30.00	PASS

Band4	1.4MHz	16QAM	20393	1RB#5	22.32	21.32	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#0	22.32	21.32	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#1	22.34	21.34	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#3	22.31	21.31	30.00	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	21.33	20.33	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#0	23.18	22.18	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#8	23.14	22.14	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#14	23.10	22.10	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#0	22.17	21.17	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#4	22.20	21.20	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#7	22.17	21.17	30.00	PASS
Band4	3MHz	QPSK	19965	15RB#0	22.18	21.18	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#0	23.04	22.04	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#8	23.06	22.06	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#14	23.02	22.02	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#0	22.08	21.08	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#4	22.12	21.12	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#7	22.07	21.07	30.00	PASS
Band4	3MHz	QPSK	20175	15RB#0	22.08	21.08	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#0	23.17	22.17	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#8	23.21	22.21	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#14	23.20	22.20	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#0	22.26	21.26	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#4	22.28	21.28	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#7	22.24	21.24	30.00	PASS
Band4	3MHz	QPSK	20385	15RB#0	22.26	21.26	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#0	22.36	21.36	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#8	22.39	21.39	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#14	22.37	21.37	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#0	21.29	20.29	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#4	21.30	20.30	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#7	21.29	20.29	30.00	PASS
Band4	3MHz	16QAM	19965	15RB#0	21.21	20.21	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#0	22.20	21.20	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#8	22.32	21.32	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#14	22.33	21.33	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#0	21.20	20.20	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#4	21.20	20.20	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#7	21.14	20.14	30.00	PASS
Band4	3MHz	16QAM	20175	15RB#0	21.12	20.12	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#0	22.52	21.52	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#8	22.53	21.53	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#14	22.39	21.39	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#0	21.29	20.29	30.00	PASS

Band4	3MHz	16QAM	20385	8RB#4	21.35	20.35	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#7	21.29	20.29	30.00	PASS
Band4	3MHz	16QAM	20385	15RB#0	21.25	20.25	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#0	23.06	22.06	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#12	23.29	22.29	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#24	23.01	22.01	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#0	22.14	21.14	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#6	22.24	21.24	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#13	22.21	21.21	30.00	PASS
Band4	5MHz	QPSK	19975	25RB#0	22.18	21.18	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#0	22.93	21.93	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#12	23.24	22.24	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#24	22.94	21.94	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#0	22.11	21.11	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#6	22.15	21.15	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#13	22.13	21.13	30.00	PASS
Band4	5MHz	QPSK	20175	25RB#0	22.12	21.12	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#0	23.11	22.11	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#12	23.39	22.39	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#24	23.09	22.09	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#0	22.27	21.27	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#6	22.32	21.32	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#13	22.23	21.23	30.00	PASS
Band4	5MHz	QPSK	20375	25RB#0	22.27	21.27	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#0	22.38	21.38	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#12	22.59	21.59	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#24	22.19	21.19	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#0	21.20	20.20	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#6	21.27	20.27	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#13	21.27	20.27	30.00	PASS
Band4	5MHz	16QAM	19975	25RB#0	21.25	20.25	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#0	22.24	21.24	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#12	22.48	21.48	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#24	22.25	21.25	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#0	21.15	20.15	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#6	21.19	20.19	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#13	21.18	20.18	30.00	PASS
Band4	5MHz	16QAM	20175	25RB#0	21.15	20.15	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#0	22.33	21.33	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#12	22.59	21.59	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#24	22.39	21.39	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#0	21.29	20.29	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#6	21.36	20.36	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#13	21.29	20.29	30.00	PASS

Band4	5MHz	16QAM	20375	25RB#0	21.28	20.28	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#0	23.18	22.18	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#24	23.21	22.21	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#49	23.07	22.07	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#0	22.16	21.16	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#12	22.23	21.23	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#25	22.23	21.23	30.00	PASS
Band4	10MHz	QPSK	20000	50RB#0	22.22	21.22	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#0	23.04	22.04	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#24	23.16	22.16	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#49	23.03	22.03	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#0	22.19	21.19	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#12	22.15	21.15	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#25	22.18	21.18	30.00	PASS
Band4	10MHz	QPSK	20175	50RB#0	22.18	21.18	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#0	23.14	22.14	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#24	23.26	22.26	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#49	23.18	22.18	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#0	22.24	21.24	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#12	22.28	21.28	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#25	22.30	21.30	30.00	PASS
Band4	10MHz	QPSK	20350	50RB#0	22.29	21.29	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#0	22.36	21.36	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#24	22.51	21.51	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#49	22.28	21.28	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#0	21.19	20.19	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#12	21.23	20.23	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#25	21.24	20.24	30.00	PASS
Band4	10MHz	16QAM	20000	50RB#0	21.22	20.22	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#0	22.33	21.33	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#24	22.40	21.40	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#49	22.34	21.34	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#0	21.20	20.20	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#12	21.16	20.16	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#25	21.18	20.18	30.00	PASS
Band4	10MHz	16QAM	20175	50RB#0	21.19	20.19	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#0	22.41	21.41	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#24	22.51	21.51	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#49	22.40	21.40	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#0	21.22	20.22	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#12	21.30	20.30	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#25	21.32	20.32	30.00	PASS
Band4	10MHz	16QAM	20350	50RB#0	21.29	20.29	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#0	23.09	22.09	30.00	PASS

Band4	15MHz	QPSK	20025	1RB#38	23.10	22.10	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#74	23.01	22.01	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#0	22.16	21.16	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#18	22.21	21.21	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#39	22.16	21.16	30.00	PASS
Band4	15MHz	QPSK	20025	75RB#0	22.15	21.15	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#0	23.02	22.02	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#38	23.06	22.06	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#74	22.99	21.99	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#0	22.17	21.17	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#18	22.16	21.16	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#39	22.18	21.18	30.00	PASS
Band4	15MHz	QPSK	20175	75RB#0	22.18	21.18	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#0	23.01	22.01	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#38	23.23	22.23	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#74	23.14	22.14	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#0	22.22	21.22	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#18	22.25	21.25	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#39	22.26	21.26	30.00	PASS
Band4	15MHz	QPSK	20325	75RB#0	22.25	21.25	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#0	22.45	21.45	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#38	22.36	21.36	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#74	22.27	21.27	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#0	21.18	20.18	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#18	21.18	20.18	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#39	21.15	20.15	30.00	PASS
Band4	15MHz	16QAM	20025	75RB#0	21.17	20.17	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#0	22.23	21.23	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#38	22.28	21.28	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#74	22.23	21.23	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#0	21.18	20.18	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#18	21.15	20.15	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#39	21.20	20.20	30.00	PASS
Band4	15MHz	16QAM	20175	75RB#0	21.19	20.19	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#0	22.23	21.23	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#38	22.53	21.53	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#74	22.40	21.40	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#0	21.22	20.22	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#18	21.27	20.27	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#39	21.25	20.25	30.00	PASS
Band4	15MHz	16QAM	20325	75RB#0	21.24	20.24	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#0	23.03	22.03	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#49	23.18	22.18	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#99	22.95	21.95	30.00	PASS

Band4	20MHz	QPSK	20050	50RB#0	22.14	21.14	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#25	22.22	21.22	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#50	22.14	21.14	30.00	PASS
Band4	20MHz	QPSK	20050	100RB#0	22.11	21.11	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#0	22.97	21.97	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#49	23.14	22.14	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#99	23.00	22.00	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#0	22.19	21.19	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#25	22.16	21.16	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#50	22.17	21.17	30.00	PASS
Band4	20MHz	QPSK	20175	100RB#0	22.17	21.17	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#0	22.94	21.94	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#49	23.21	22.21	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#99	23.07	22.07	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#0	22.13	21.13	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#25	22.23	21.23	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#50	22.22	21.22	30.00	PASS
Band4	20MHz	QPSK	20300	100RB#0	22.17	21.17	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#0	22.27	21.27	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#49	22.34	21.34	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#99	22.19	21.19	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#0	21.14	20.14	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#25	21.22	20.22	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#50	21.15	20.15	30.00	PASS
Band4	20MHz	16QAM	20050	100RB#0	21.13	20.13	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#0	22.17	21.17	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#49	22.33	21.33	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#99	22.24	21.24	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#0	21.21	20.21	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#25	21.18	20.18	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#50	21.20	20.20	30.00	PASS
Band4	20MHz	16QAM	20175	100RB#0	21.19	20.19	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#0	22.14	21.14	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#49	22.49	21.49	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#99	22.37	21.37	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#0	21.14	20.14	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#25	21.23	20.23	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#50	21.21	20.21	30.00	PASS
Band4	20MHz	16QAM	20300	100RB#0	21.18	20.18	30.00	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]

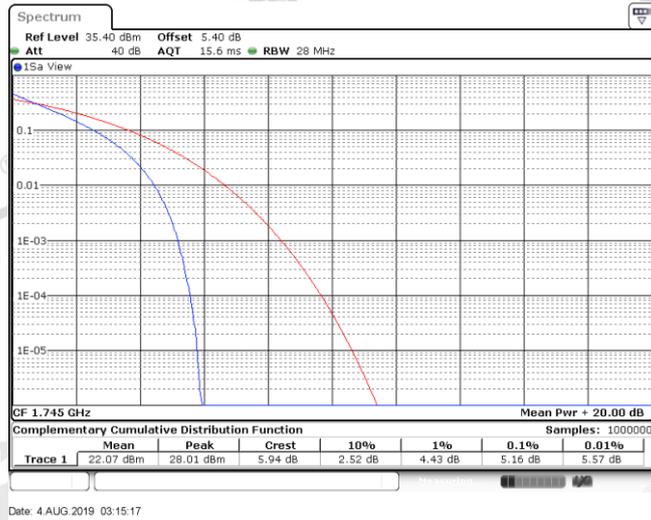
4. Peak-to-Average Ratio(CCDF)

4.1. Test Result

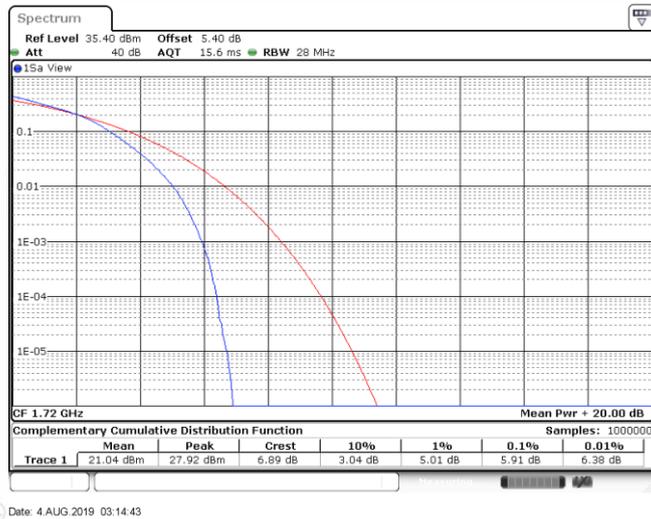
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	5.07	13	PASS
Band4	20MHz	QPSK	20175	100RB#0	5.01	13	PASS
Band4	20MHz	QPSK	20300	100RB#0	5.16	13	PASS
Band4	20MHz	16QAM	20050	100RB#0	5.91	13	PASS
Band4	20MHz	16QAM	20175	100RB#0	5.88	13	PASS
Band4	20MHz	16QAM	20300	100RB#0	6.03	13	PASS

4.2. Test Plots

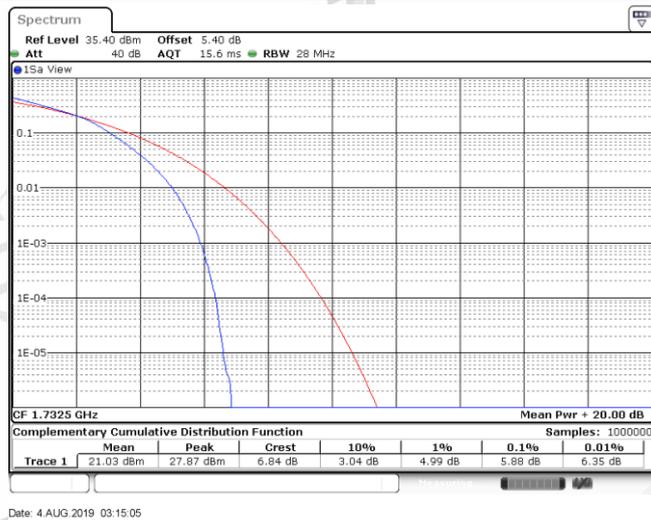




Band4_20MHz_16QAM_20050_100RB#0



Band4_20MHz_16QAM_20175_100RB#0



Band4_20MHz_16QAM_20300_100RB#0

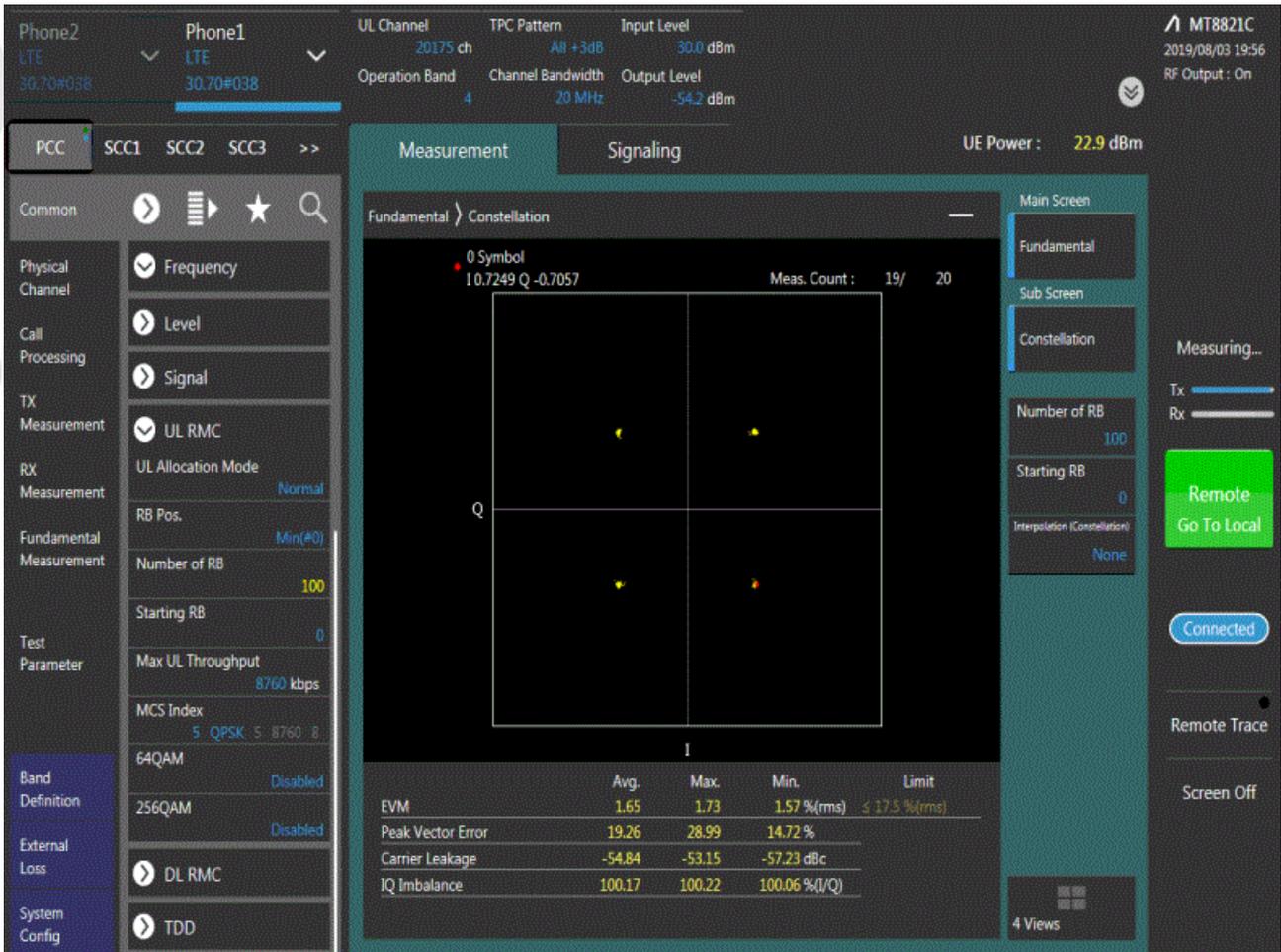


5. Modulation Characteristics

5.1. Test Band = LTE Band 4

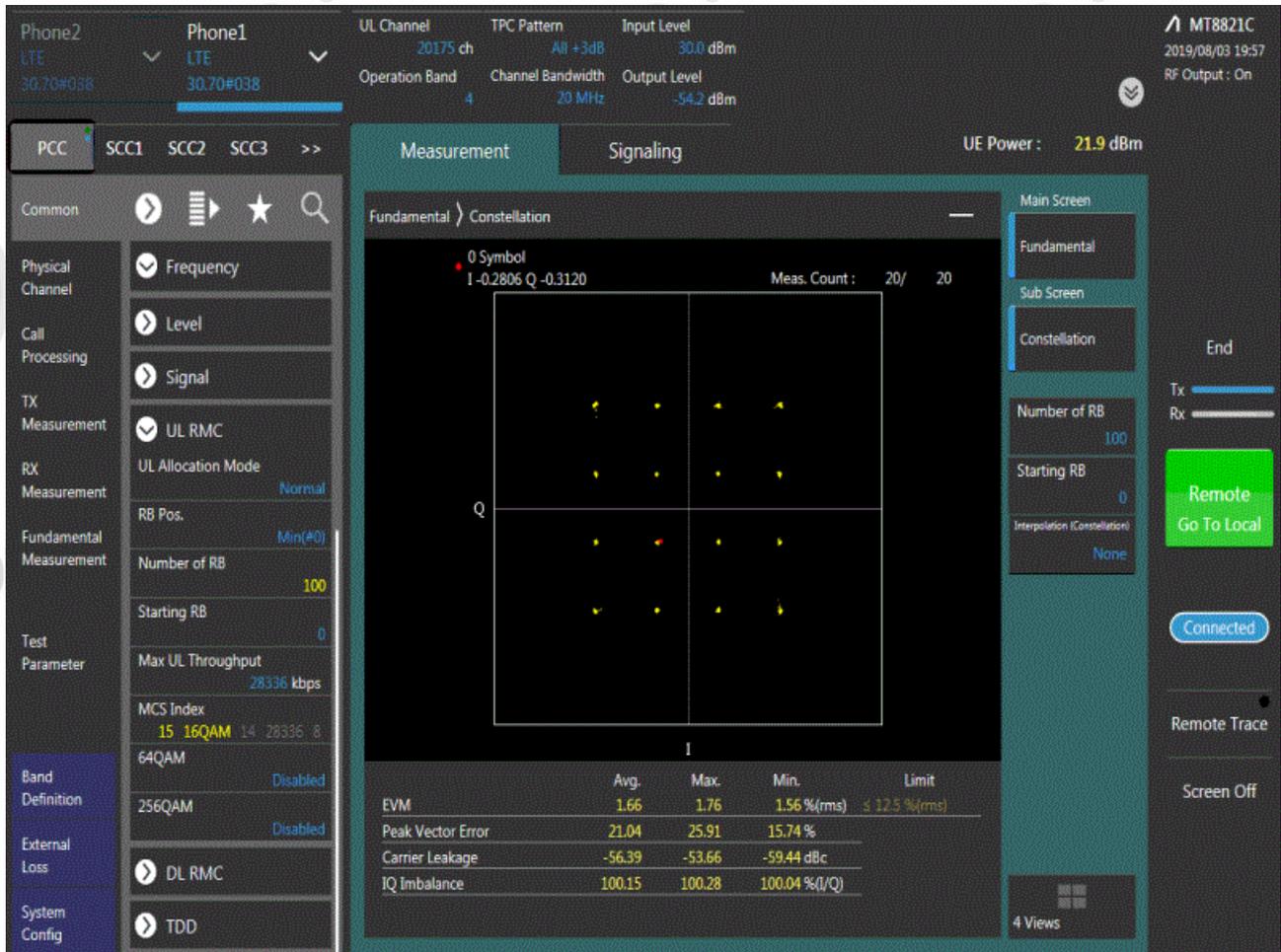
5.2. Test Mode = LTE /TM1 20MHz

5.2.1. Test Channel = MCH



5.3. Test Mode = LTE /TM2 20MHz

5.3.1. Test Channel = MCH

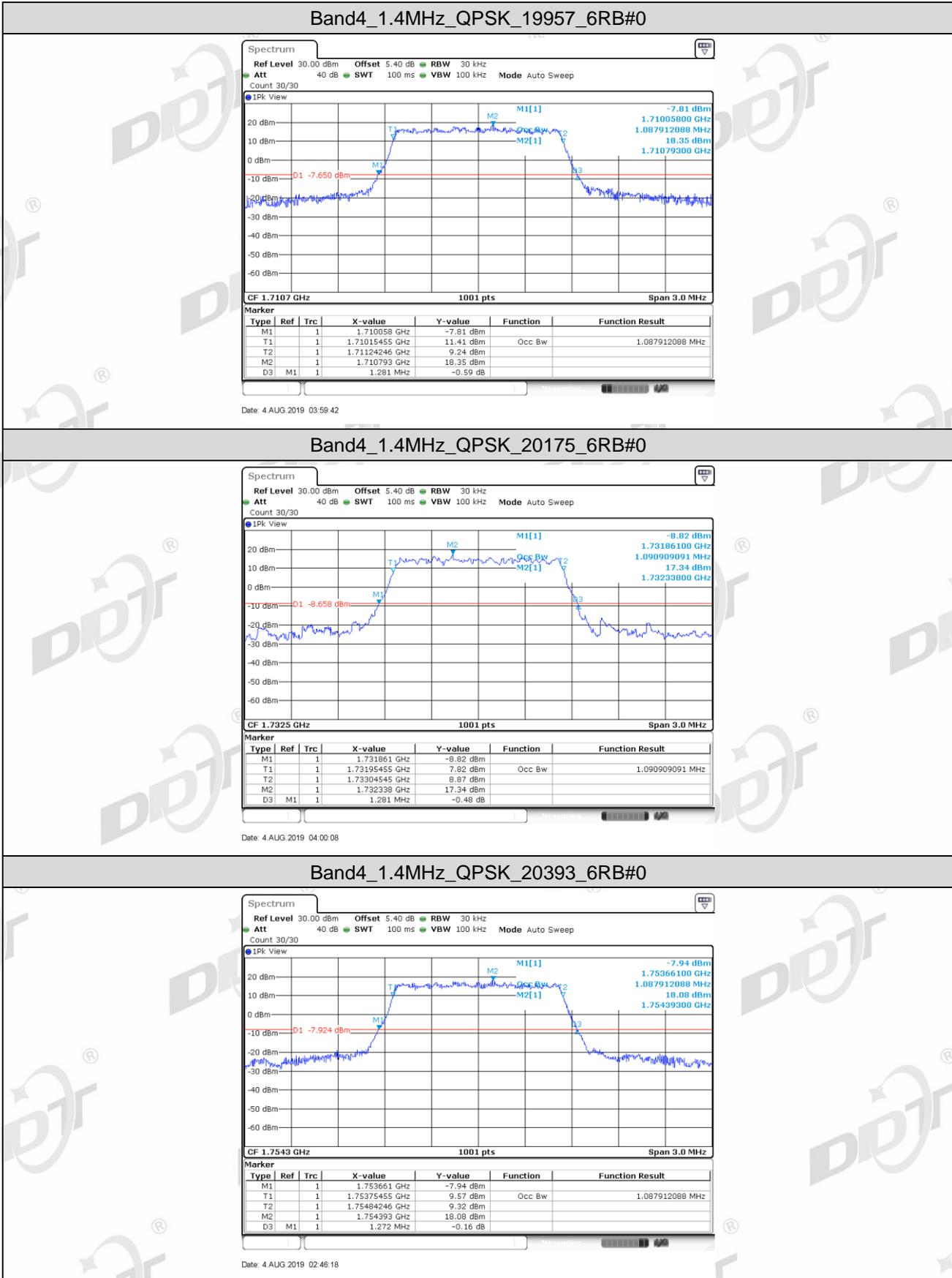


6. 26dB Bandwidth and Occupied Bandwidth

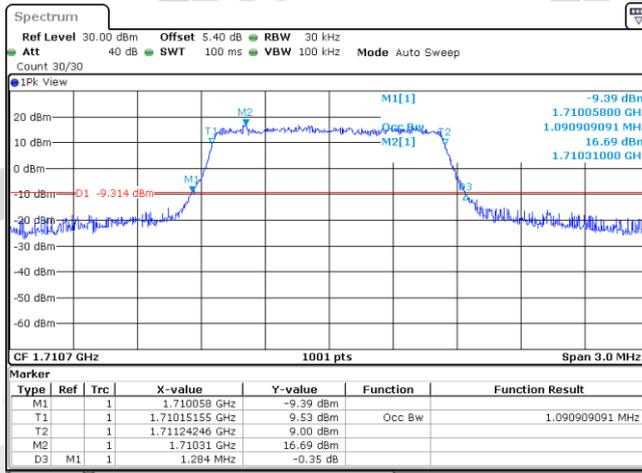
6.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	1.088	1.281	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.091	1.281	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.088	1.272	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1.091	1.284	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1.094	1.278	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1.091	1.281	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.691	2.922	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.691	2.922	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.685	2.928	PASS
Band4	3MHz	16QAM	19965	15RB#0	2.673	2.892	PASS
Band4	3MHz	16QAM	20175	15RB#0	2.673	2.898	PASS
Band4	3MHz	16QAM	20385	15RB#0	2.673	2.892	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.466	4.830	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.466	4.830	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.476	4.800	PASS
Band4	5MHz	16QAM	19975	25RB#0	4.476	4.850	PASS
Band4	5MHz	16QAM	20175	25RB#0	4.486	4.870	PASS
Band4	5MHz	16QAM	20375	25RB#0	4.476	4.840	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.931	9.600	PASS
Band4	10MHz	QPSK	20175	50RB#0	8.931	9.640	PASS
Band4	10MHz	QPSK	20350	50RB#0	8.931	9.600	PASS
Band4	10MHz	16QAM	20000	50RB#0	8.931	9.640	PASS
Band4	10MHz	16QAM	20175	50RB#0	8.911	9.640	PASS
Band4	10MHz	16QAM	20350	50RB#0	8.931	9.600	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.457	14.640	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.487	19.020	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.457	14.700	PASS
Band4	15MHz	16QAM	20025	75RB#0	13.457	14.640	PASS
Band4	15MHz	16QAM	20175	75RB#0	13.457	15.630	PASS
Band4	15MHz	16QAM	20325	75RB#0	13.457	14.640	PASS
Band4	20MHz	QPSK	20050	100RB#0	17.862	19.240	PASS
Band4	20MHz	QPSK	20175	100RB#0	17.902	19.280	PASS
Band4	20MHz	QPSK	20300	100RB#0	17.902	19.320	PASS
Band4	20MHz	16QAM	20050	100RB#0	17.902	19.320	PASS
Band4	20MHz	16QAM	20175	100RB#0	17.862	19.360	PASS
Band4	20MHz	16QAM	20300	100RB#0	17.902	19.360	PASS

6.2. Test Plots

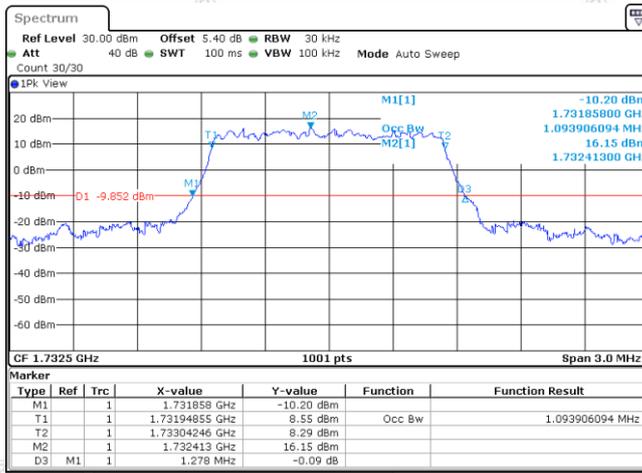


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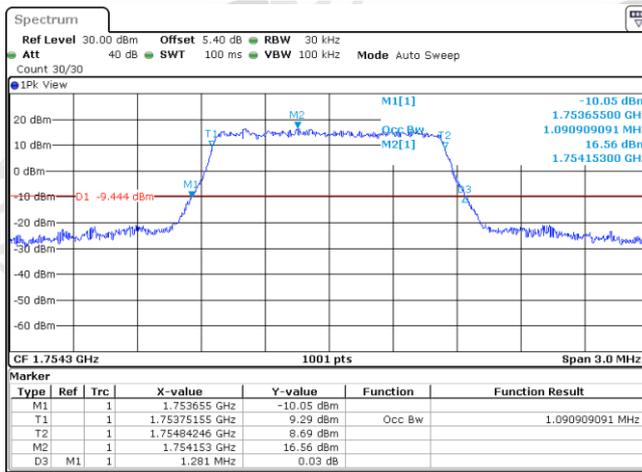
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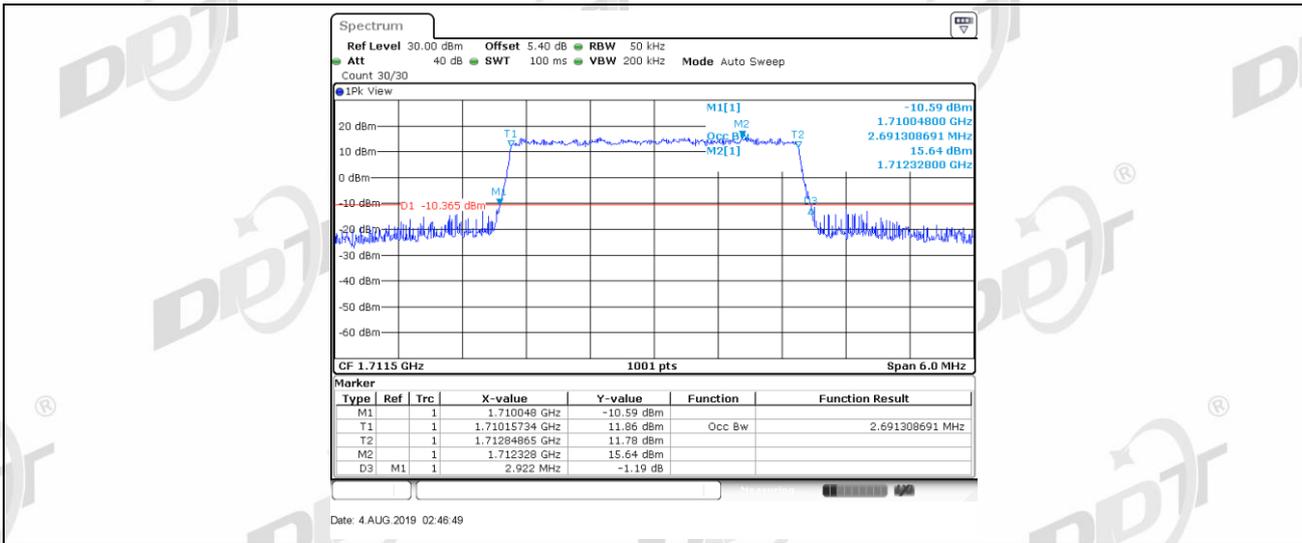
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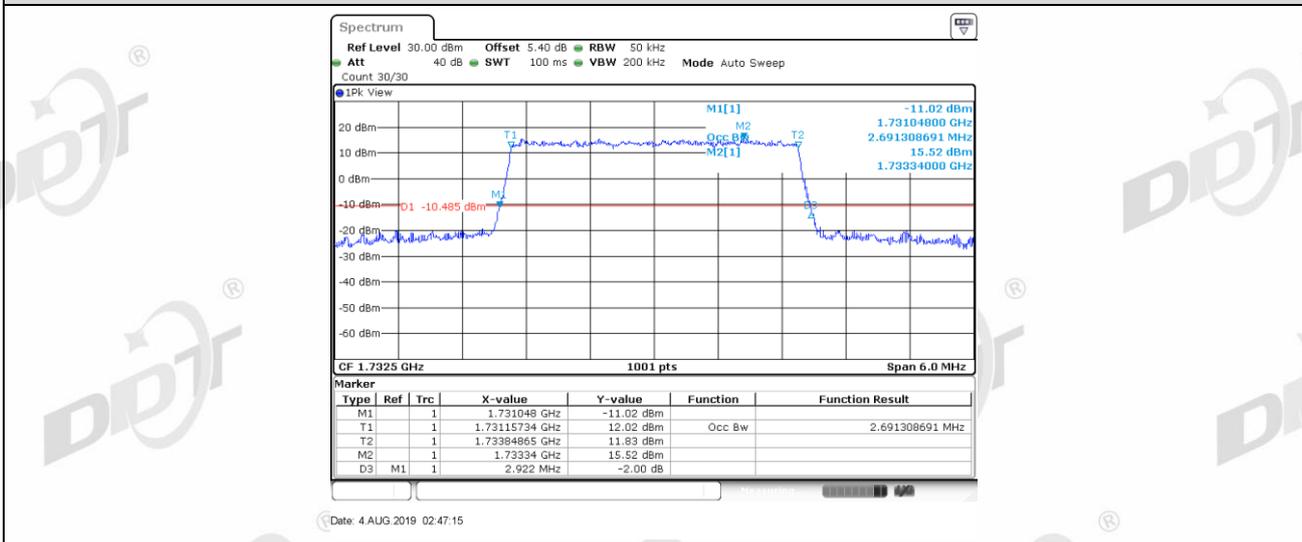


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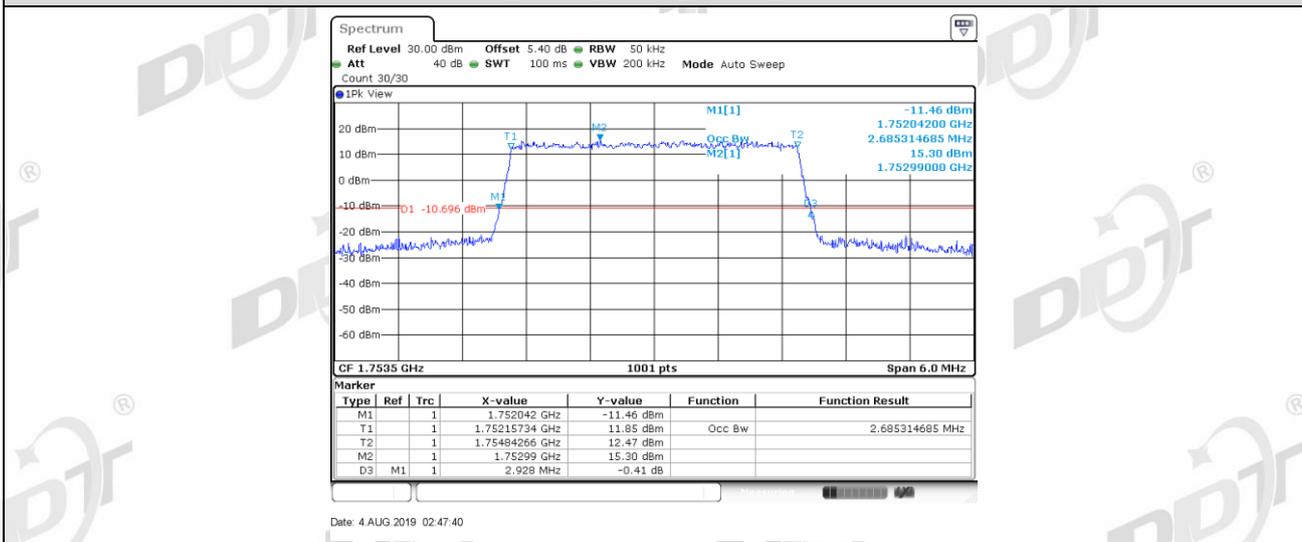
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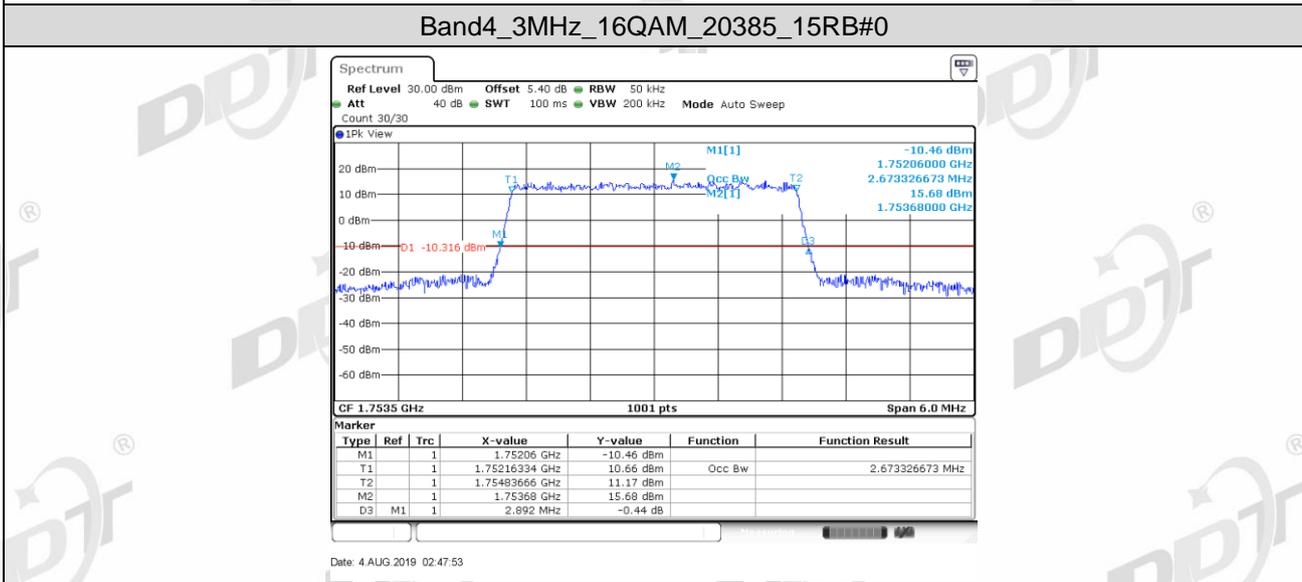
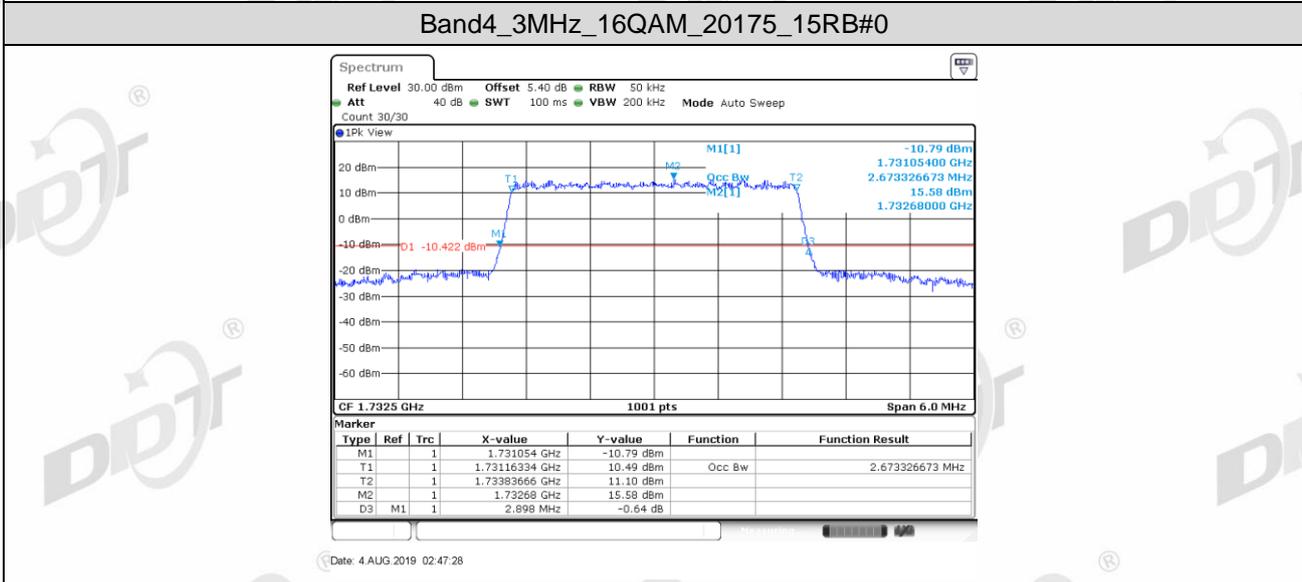
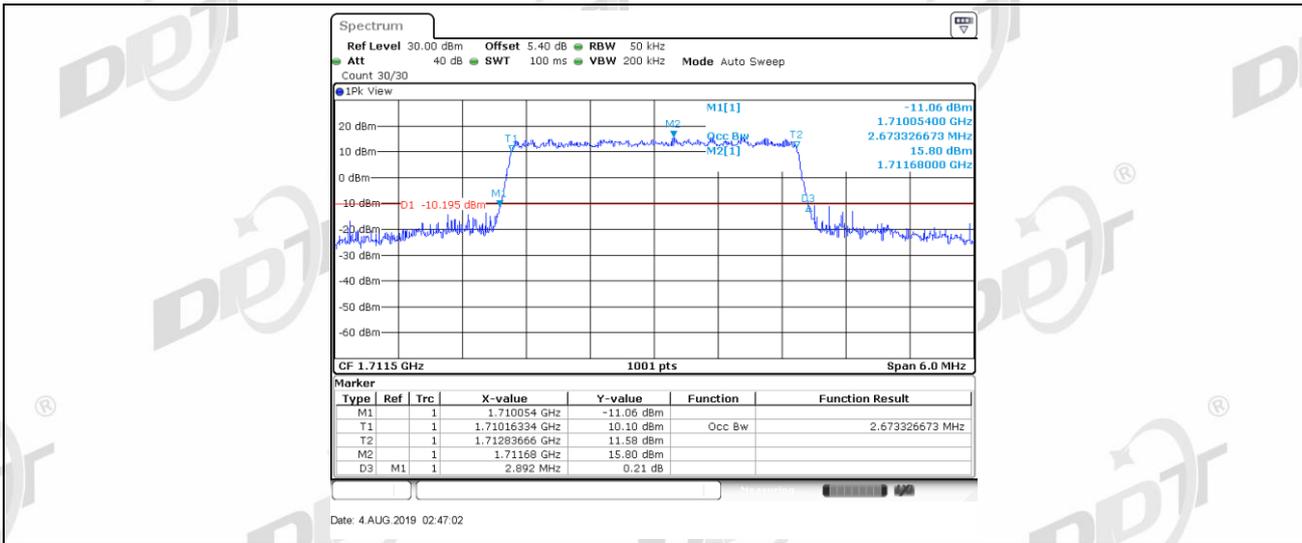
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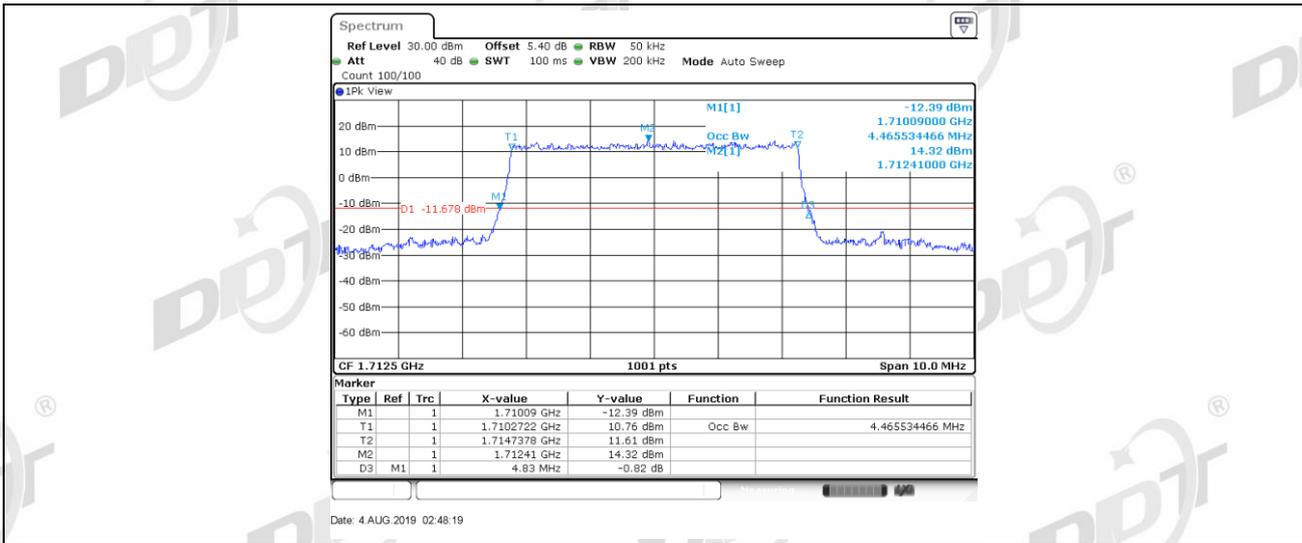
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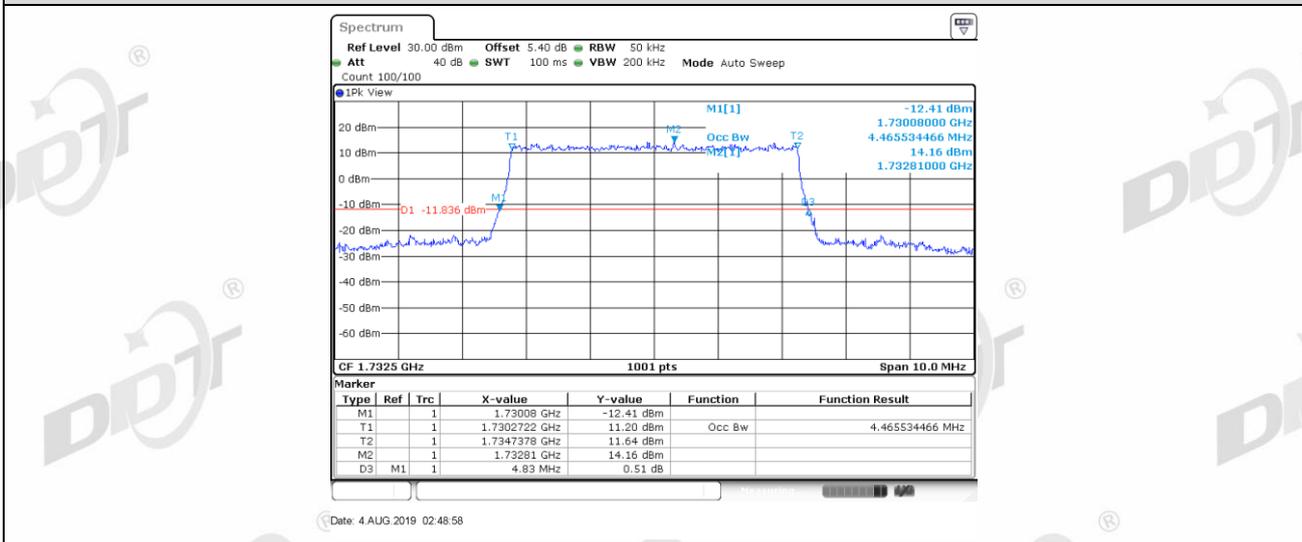
Band4_3MHz_16QAM_19965_15RB#0



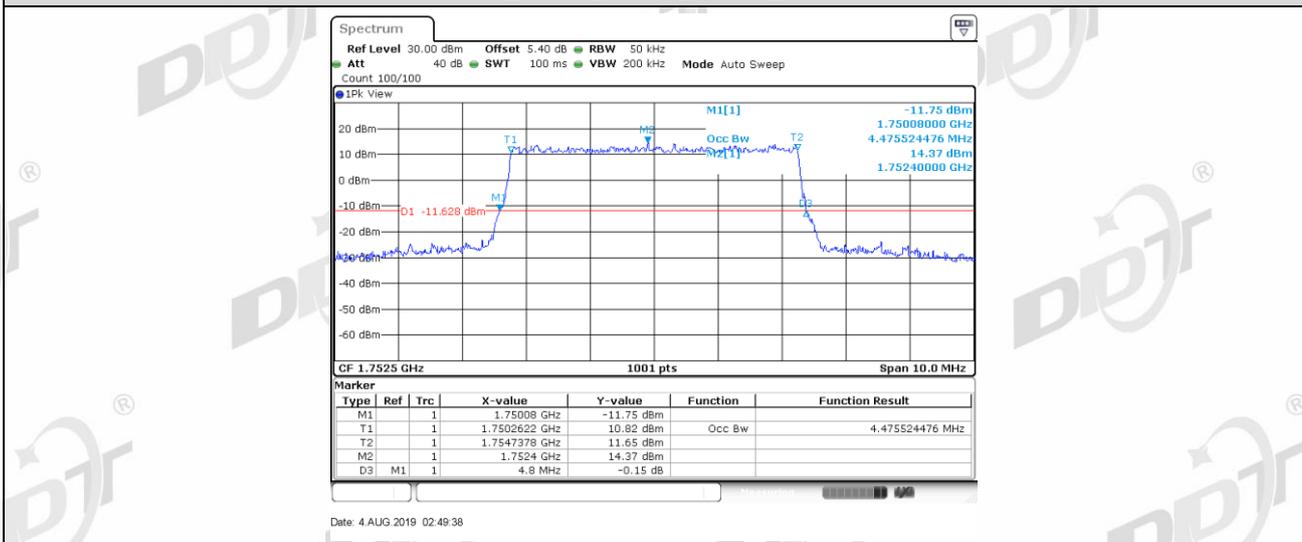
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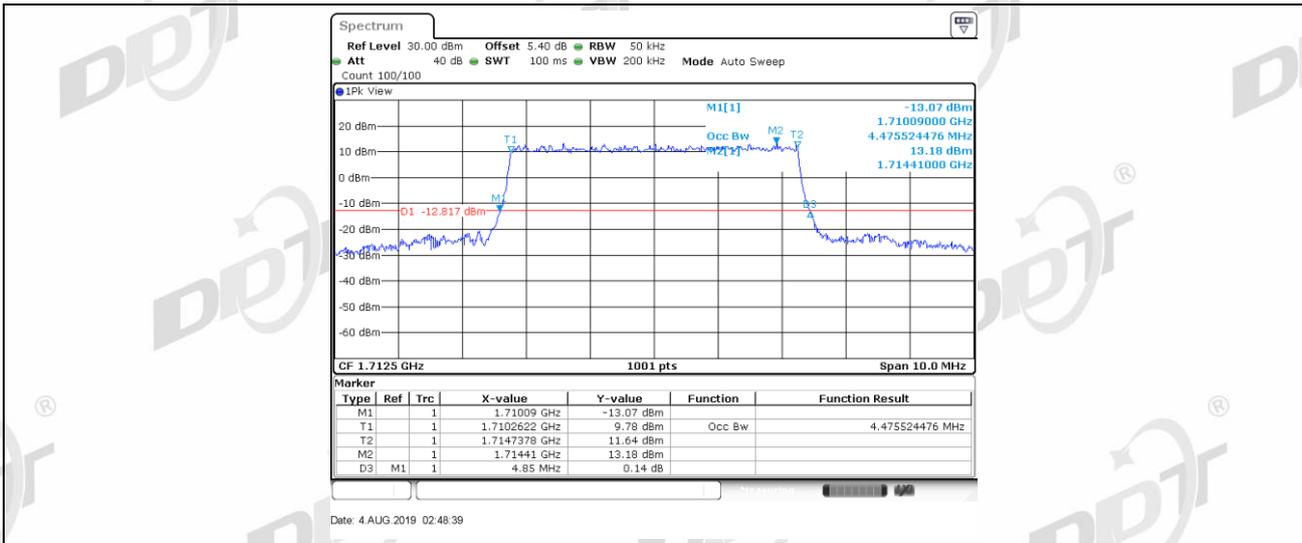
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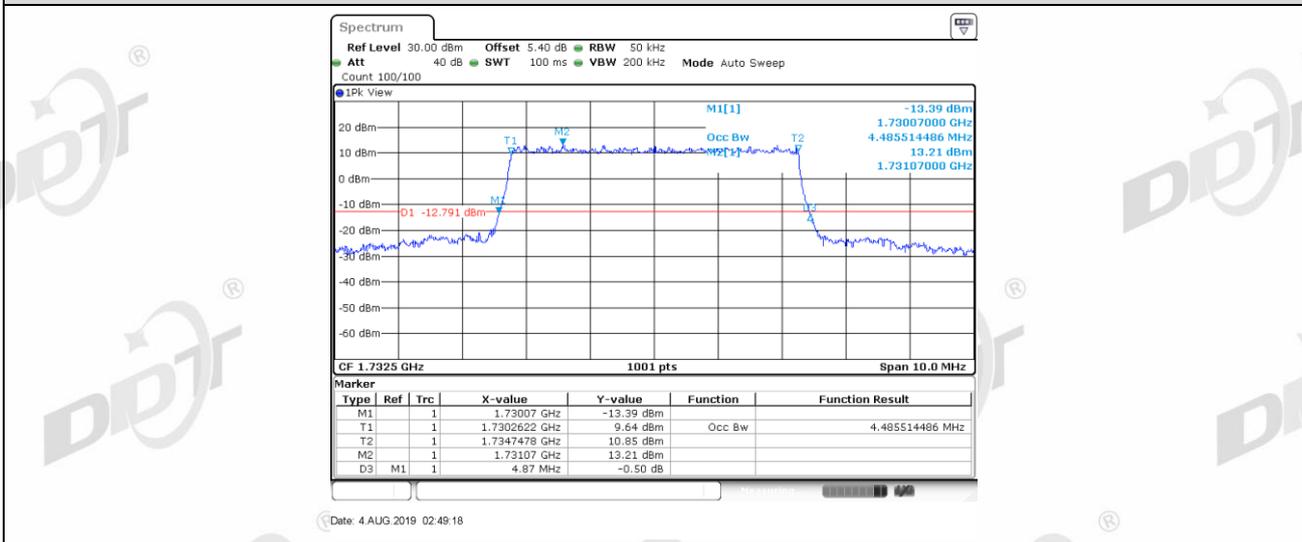
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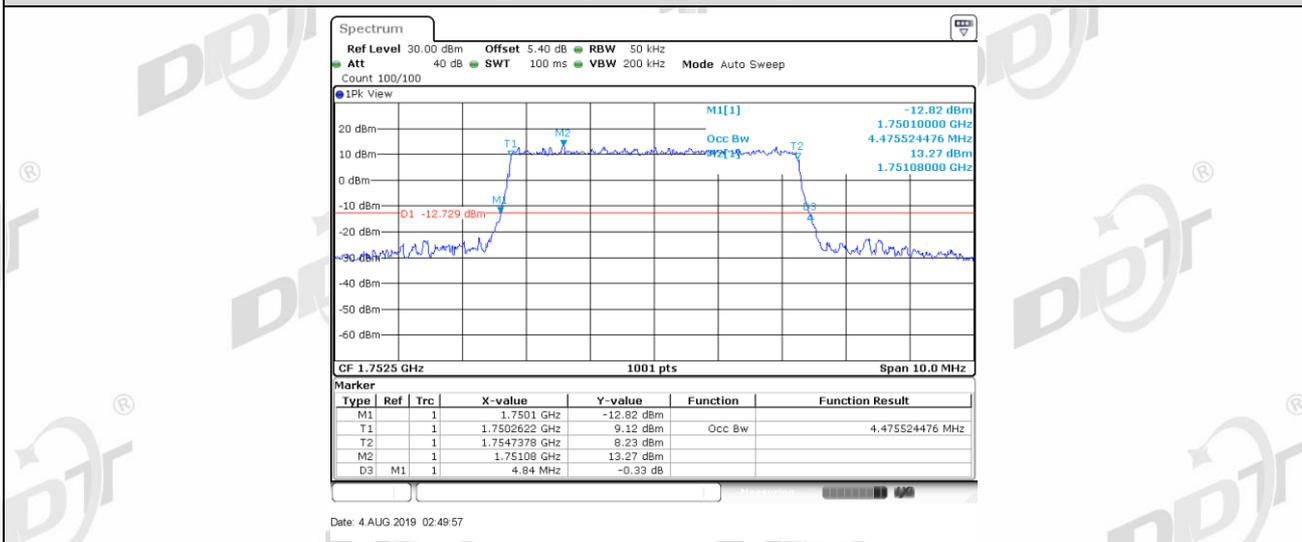
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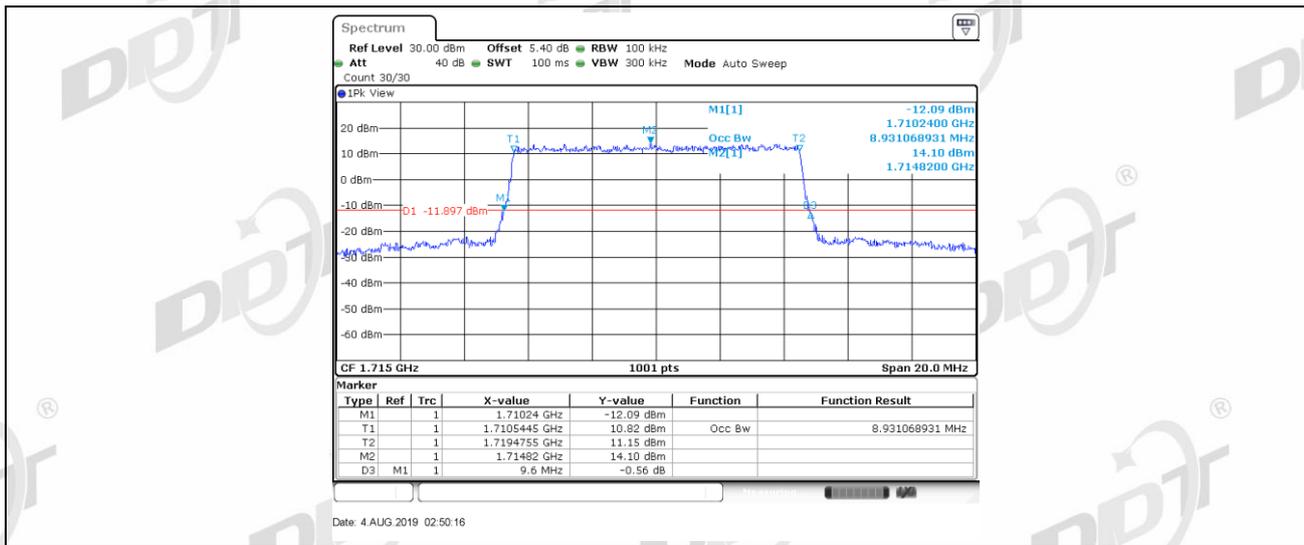
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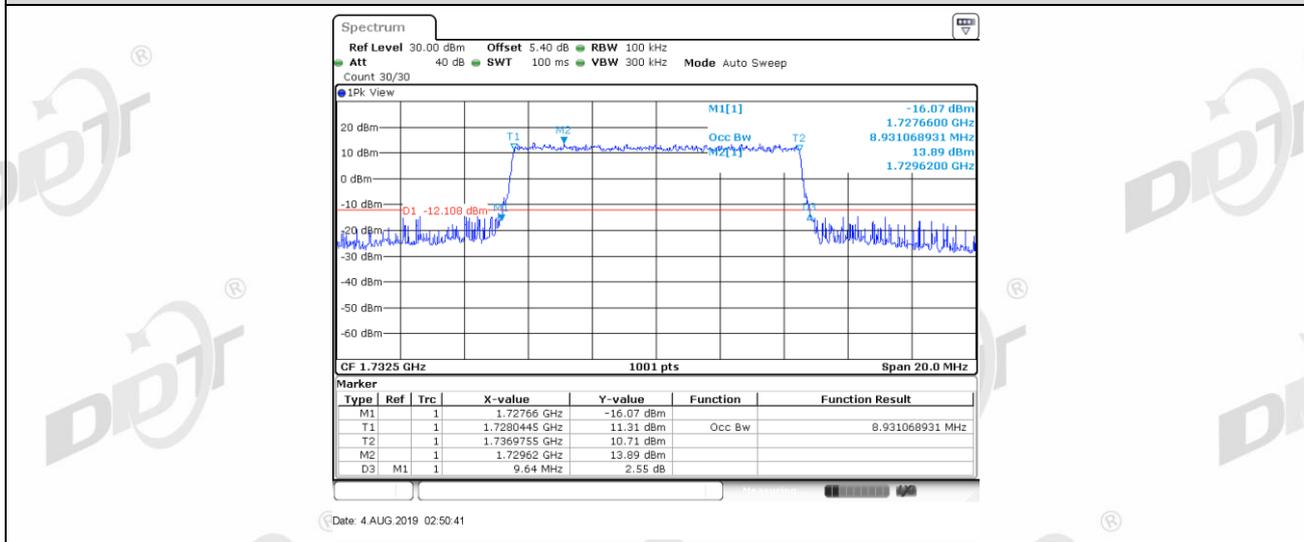
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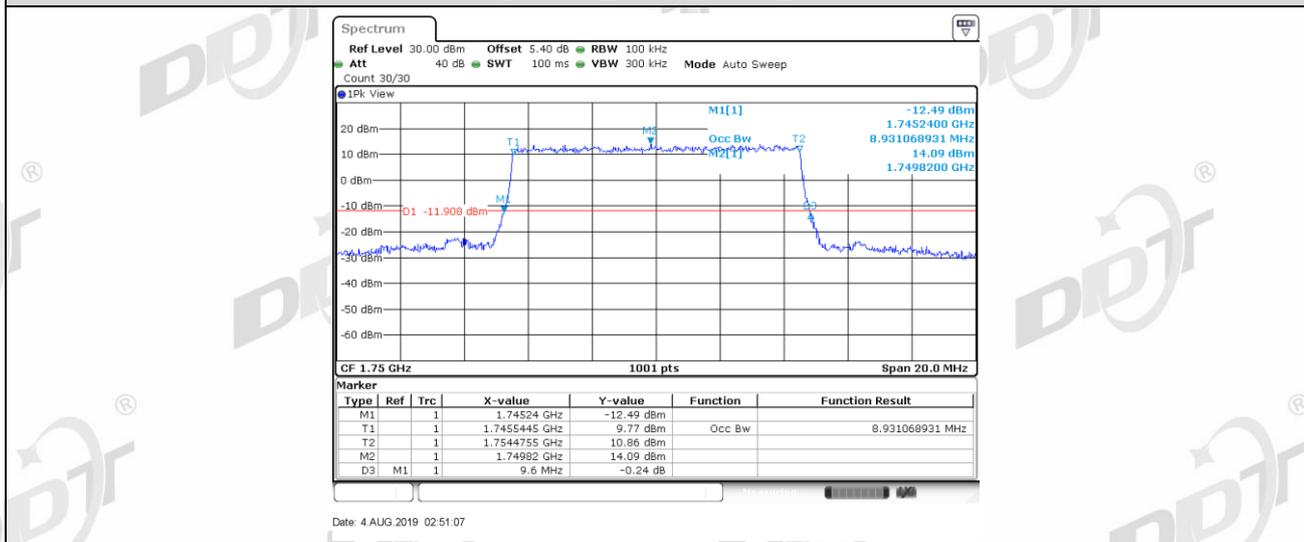
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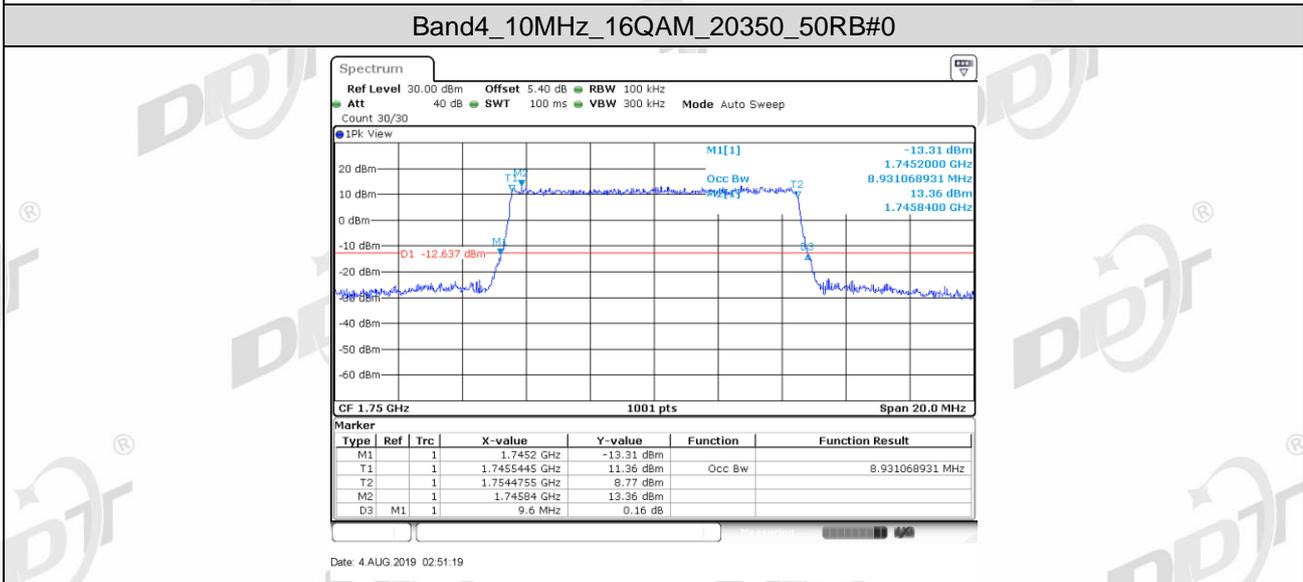
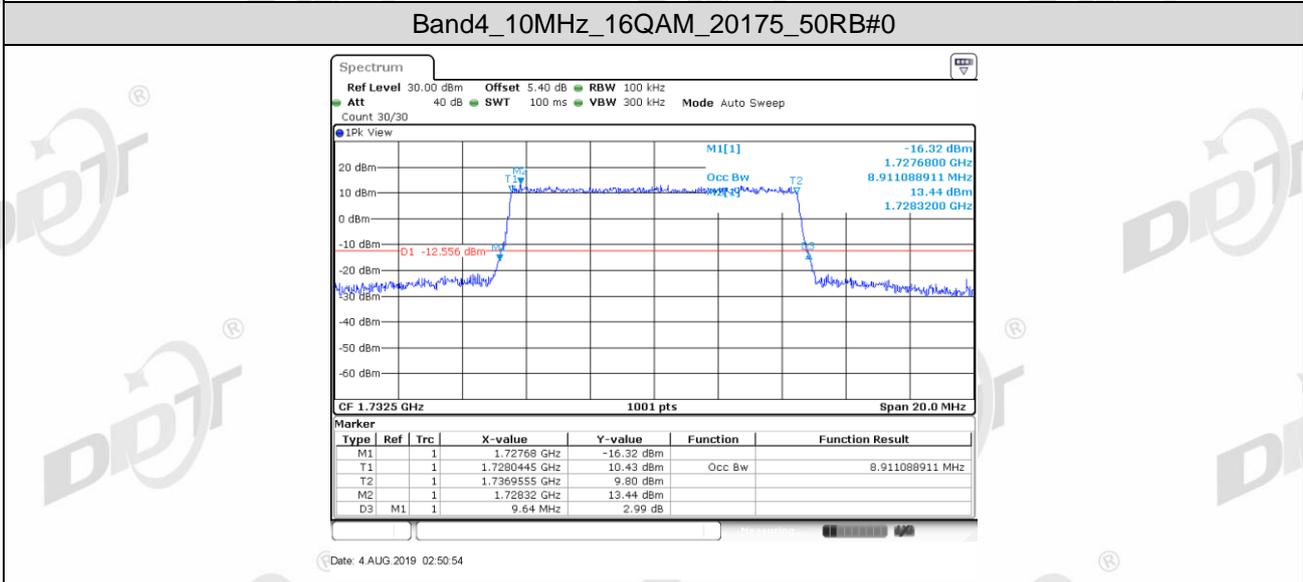
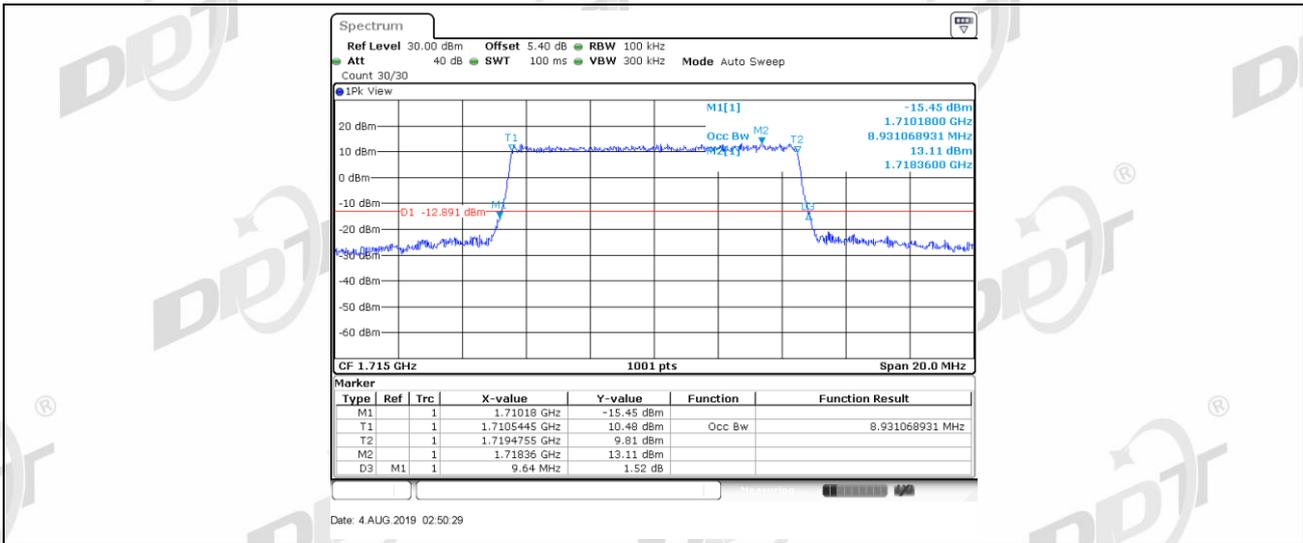
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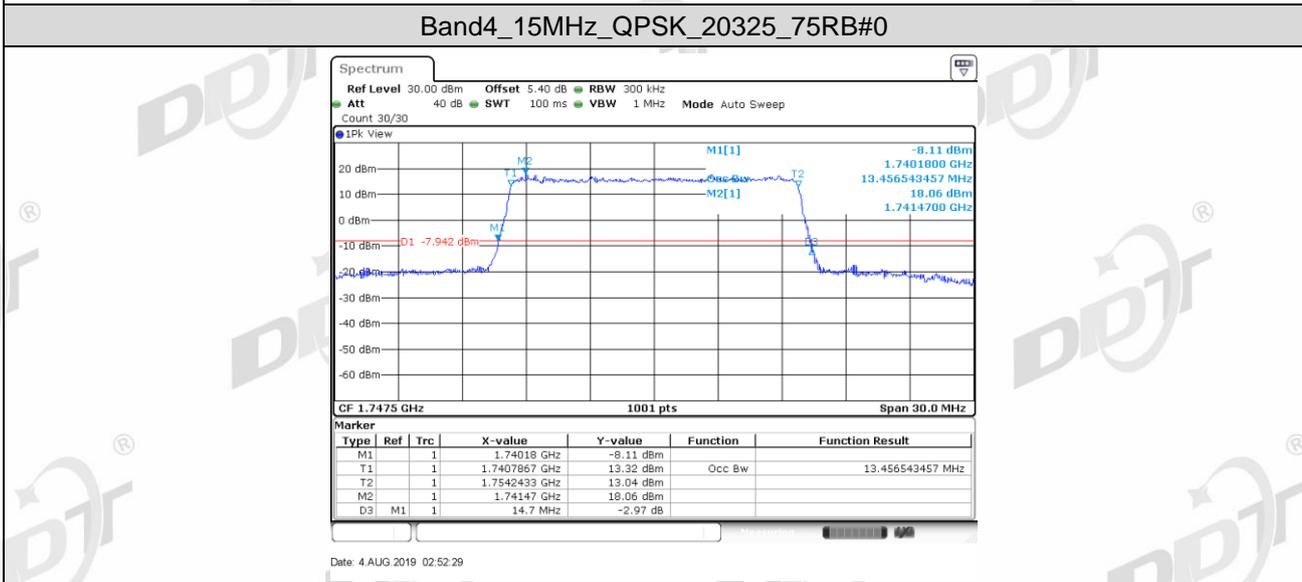
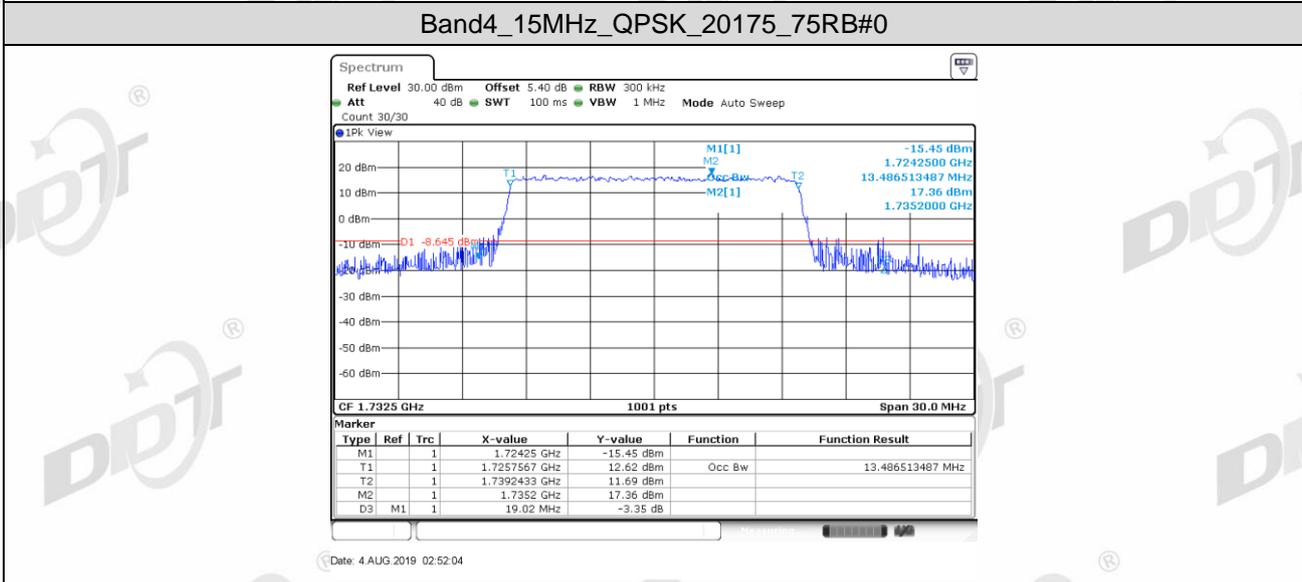
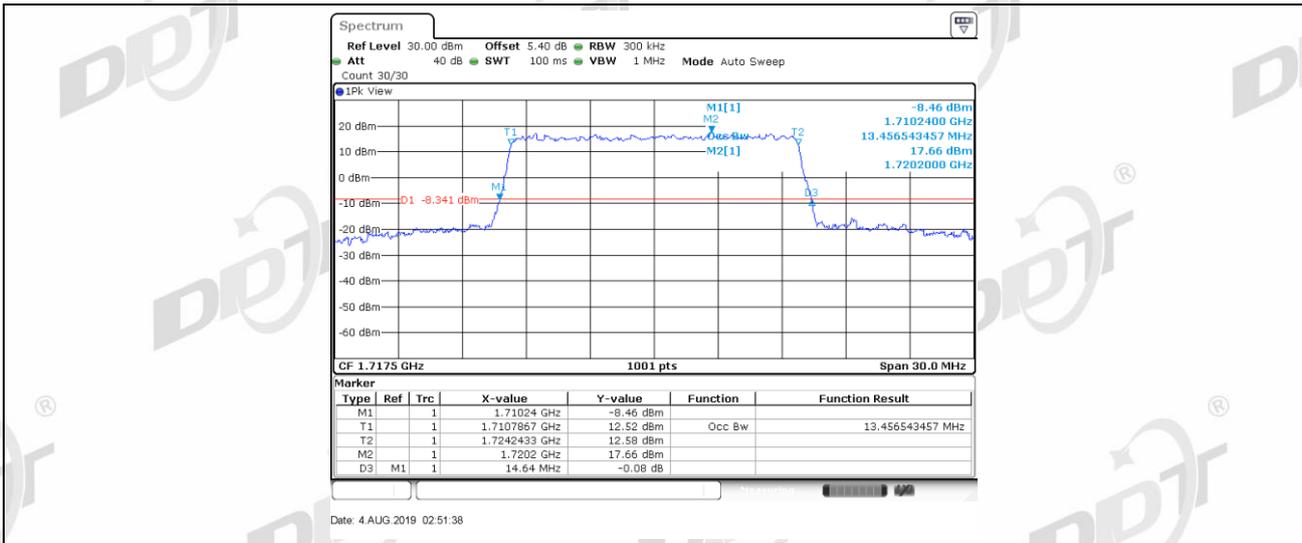


Band4_10MHz_QPSK_20350_50RB#0

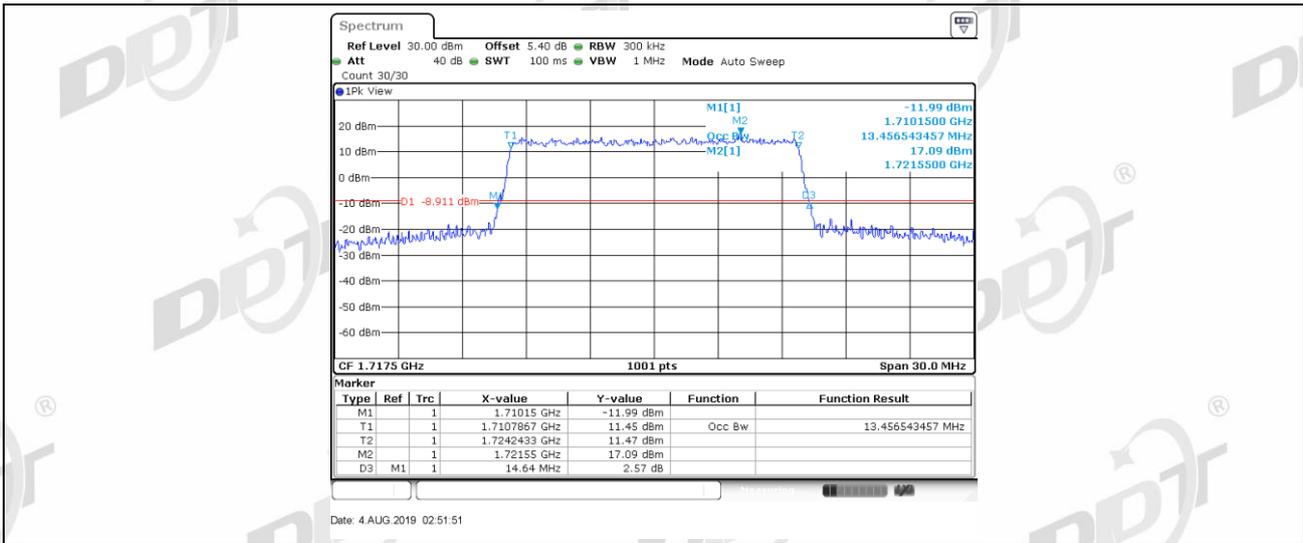


Band4_10MHz_16QAM_20000_50RB#0

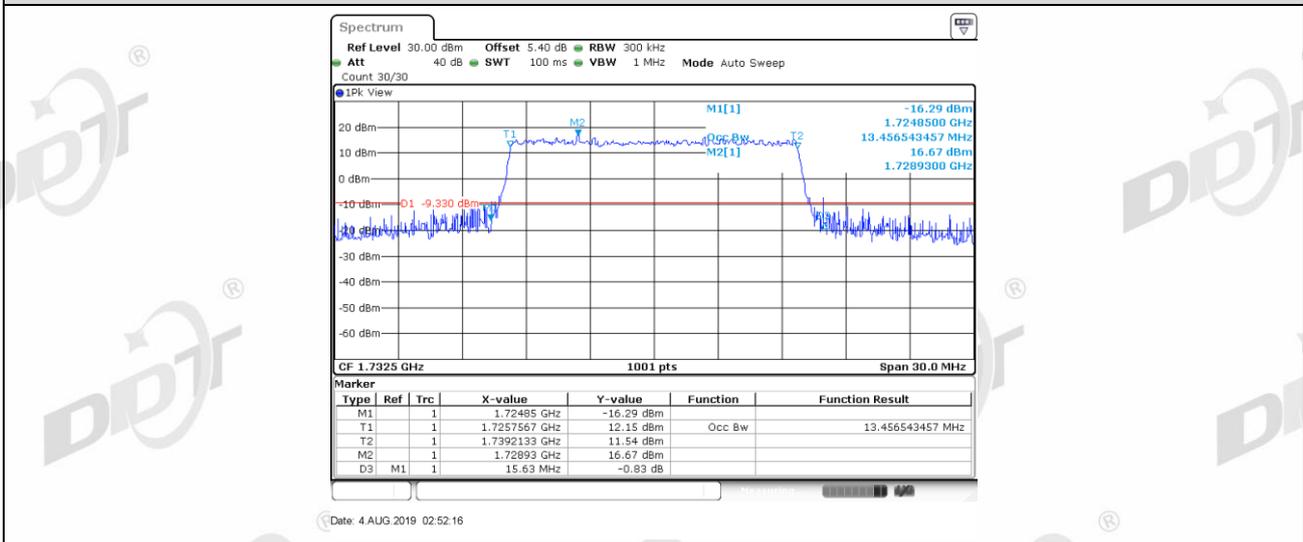




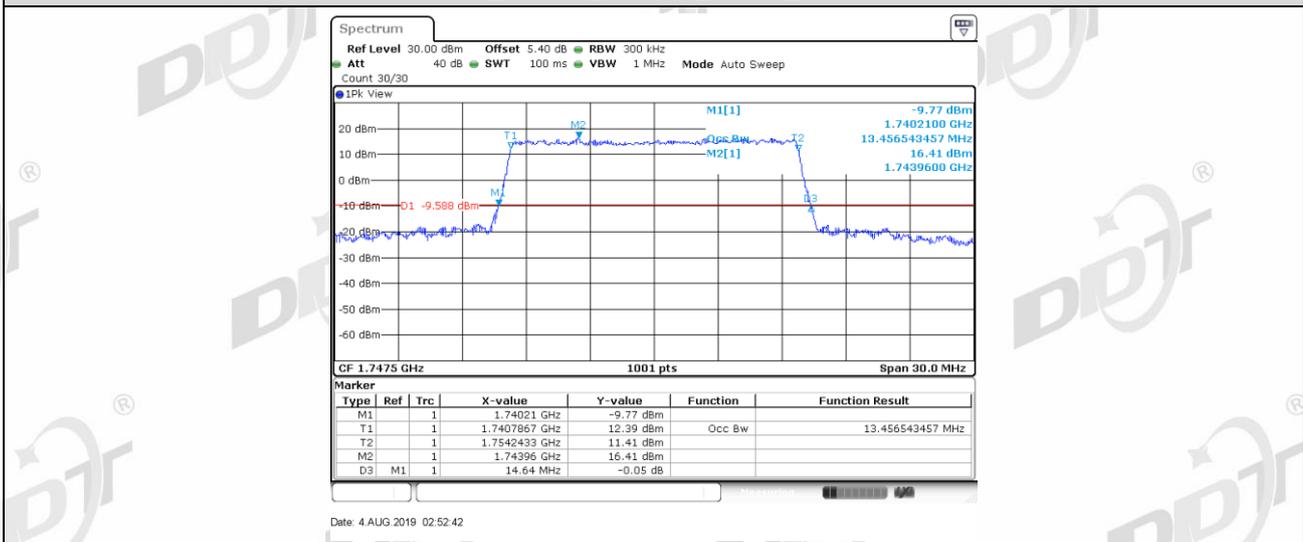
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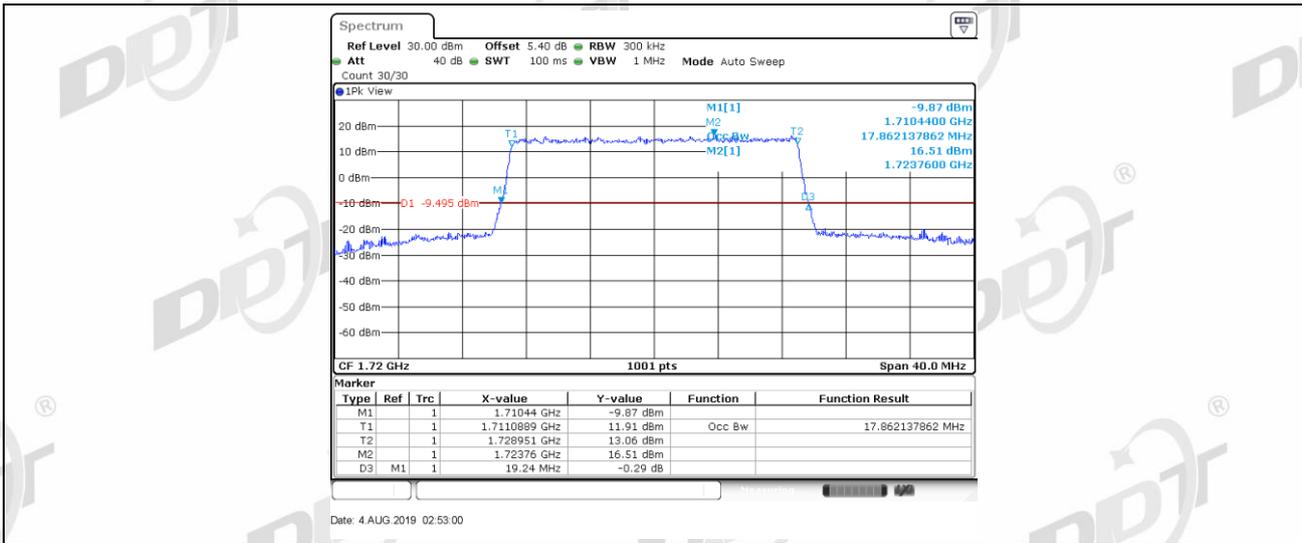
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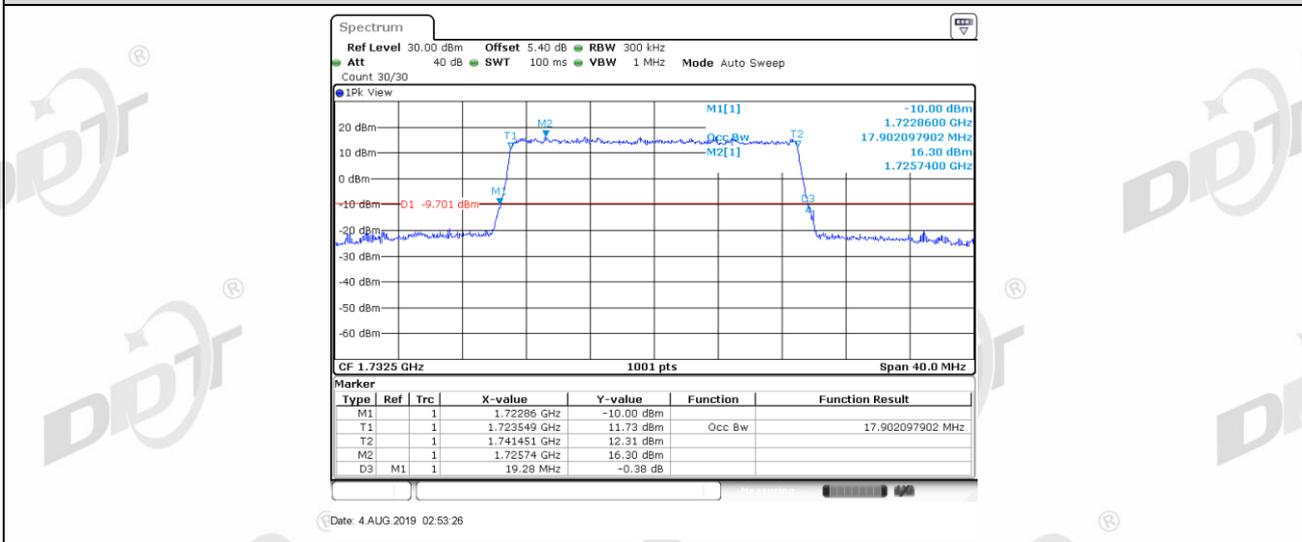
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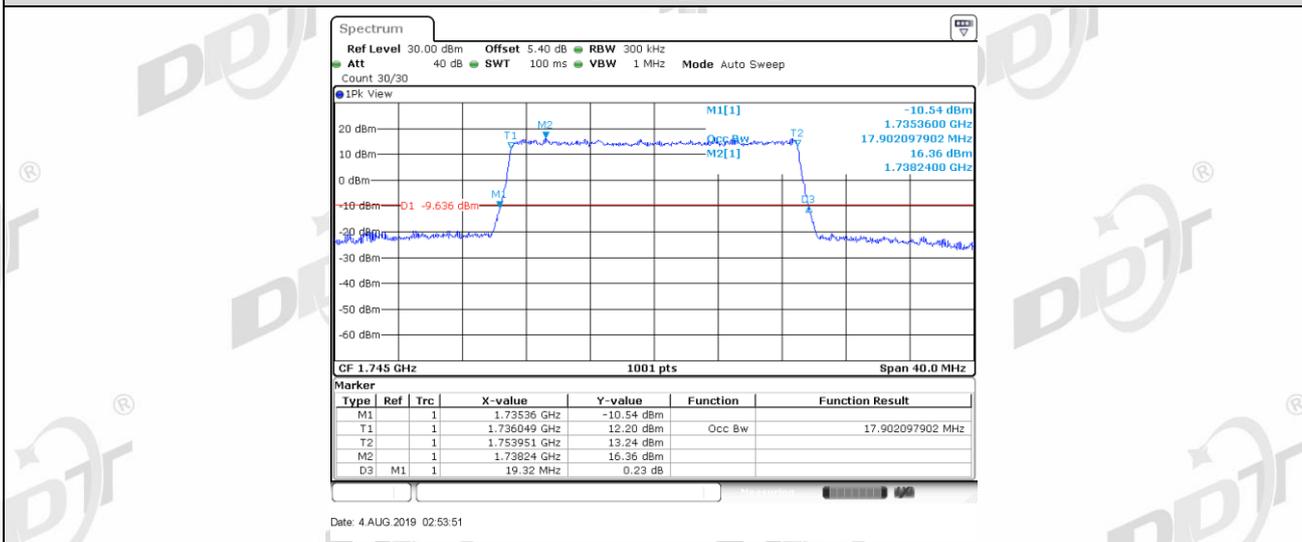
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Band4_20MHz_QPSK_20175_100RB#0



Band4_20MHz_QPSK_20300_100RB#0



Band4_20MHz_16QAM_20050_100RB#0

