

FCC RF TEST REPORT

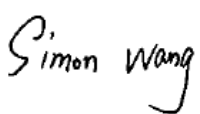
Applicant:	Continental Automotive Systems, Inc.
Address:	21440 W Lake Cook Rd., Deer Park, IL 60010, USA

Manufacturer or Supplier:	Continental Automotive Systems, Inc.
Address:	21440 W Lake Cook Rd., Deer Park, IL 60010, USA
Product:	FE5NA0010, FE5NA0011
Brand Name:	Continental
Model Name:	FE5NA0010, FE5NA0011
FCC ID:	LHJ-FE5NA0010
HW version:	P4.1
SW version:	MODEMSA515M_LE2.1_01.12.13
Registration No:	525120
Designation No:	CN1171
Date of tests:	Mar. 15, 2022 ~ Jul. 30, 2022

The tests have been carried out according to the requirements of the following standard:

- ☒ **FCC PART 22, Subpart H**
☒ **FCC PART 24, Subpart E**
☒ **FCC Part 27, Subpart C, M**
☒ **FCC Part 2**
☒ **ANSI/TIA/EIA-603-D**
☒ **ANSI C63.26-2015**
☒ **ANSI/TIA/EIA-603-E**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
	
Date: Jul. 30, 2022	Date: Jul. 30, 2022

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

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NSA

ENDC_66A_N5A

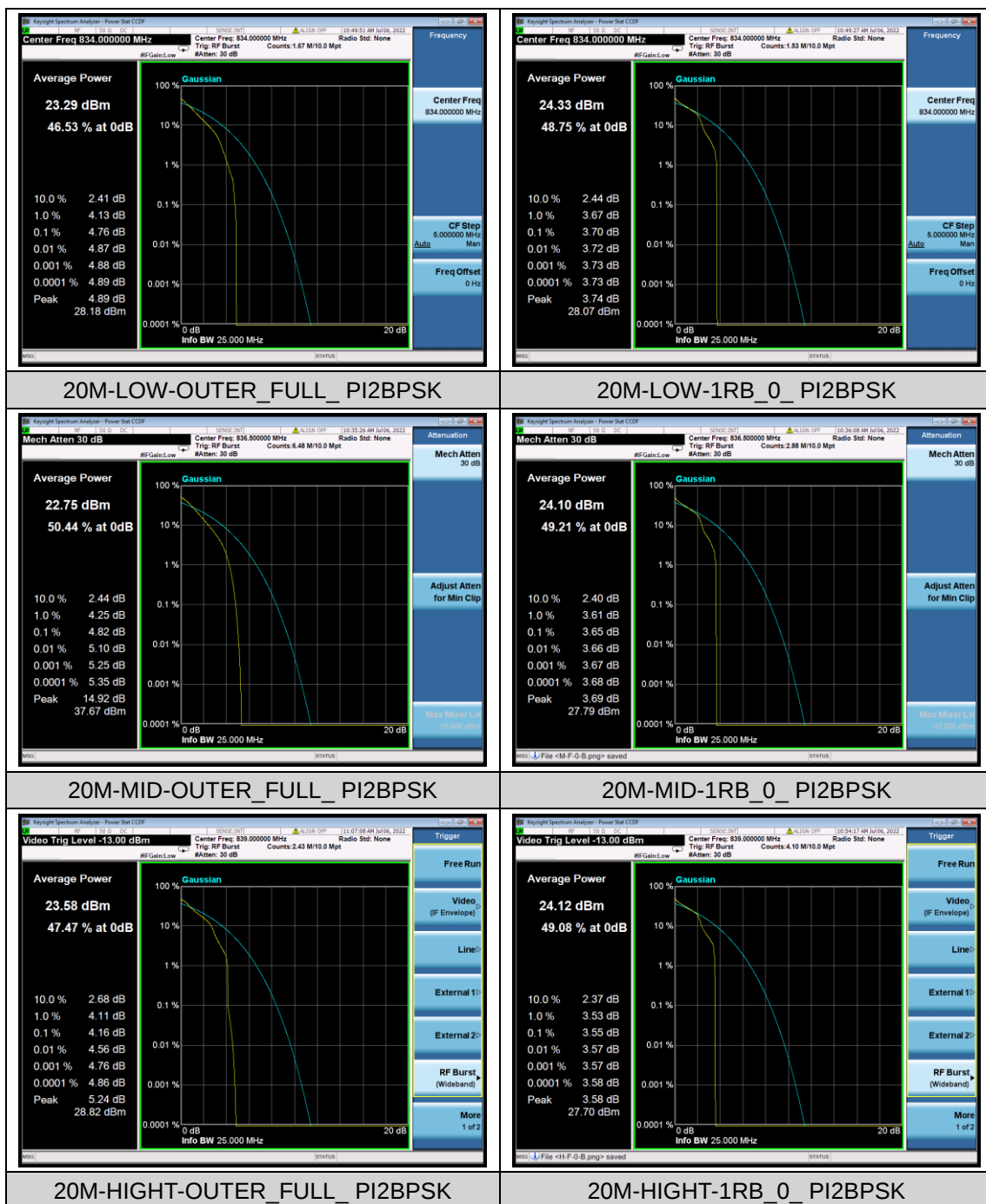
PEAK-TO-AVERAGE RATIO(PAPR)

TEST RESULT

BAND: ENDC_5A_N5A / BANDWIDTH: 20MHZ / NTNVDFT_15KHZ							
MODULATION	RB ALLOCATION		PEAK-AVERAGE RATIO (DB)				VERDICT
	SIZE	OFFSET	LCH	MCH	HCH	LIMIT	
PI2BPSK	OUTER_FULL	0	4.76	4.82	4.16	<=13	PASS
PI2BPSK	1	0	3.70	3.65	3.55	<=13	PASS



TEST GRAPHS



26DB BANDWIDTH AND OCCUPIED BANDWIDTH

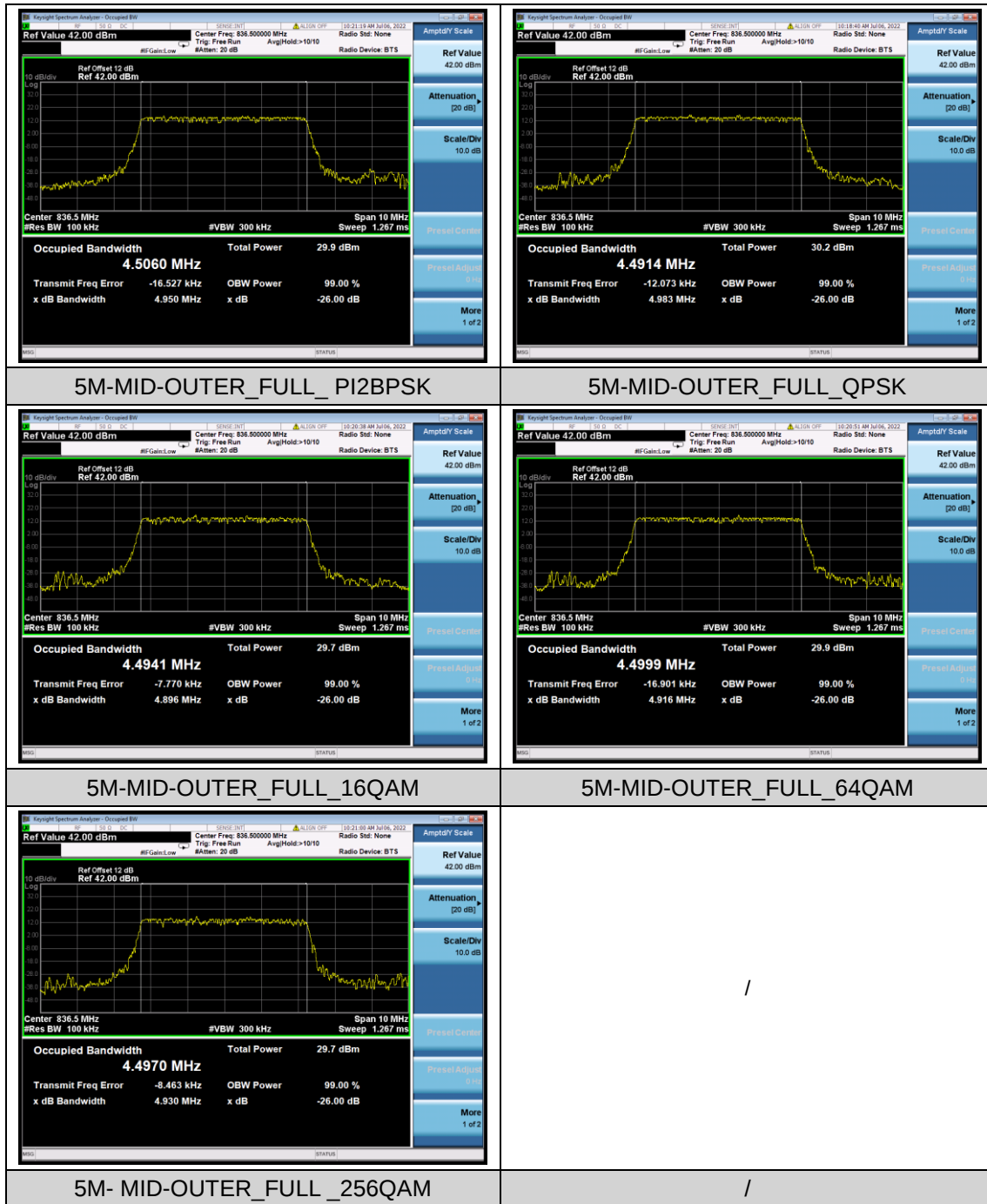
TEST RESULT

BAND	SCS	BANDWIDTH	MODULATION	CHANNEL	RB CONFIG	RESULT (99%)	RESULT (26DB)	VERDICT
DC_66A_N5A	15KHZ	10MHZ+5 MHZ	DFT-PI2BPSK	MID	OUTER_F ULL	4.5060	4.950	PASS
DC_66A_N5A	15KHZ	10MHZ+5 MHZ	DFT-QPSK	MID	OUTER_F ULL	4.4914	4.983	PASS
DC_66A_N5A	15KHZ	10MHZ+5 MHZ	DFT-16QAM	MID	OUTER_F ULL	4.4941	4.896	PASS
DC_66A_N5A	15KHZ	10MHZ+5 MHZ	DFT-64QAM	MID	OUTER_F ULL	4.4999	4.916	PASS
DC_66A_N5A	15KHZ	10MHZ+5 MHZ	DFT-256QAM	MID	OUTER_F ULL	4.4970	4.930	PASS
DC_66A_N5A	15KHZ	10MHZ+1 0MHZ	DFT-PI2BPSK	MID	OUTER_F ULL	8.9247	9.467	PASS
DC_66A_N5A	15KHZ	10MHZ+1 0MHZ	DFT-QPSK	MID	OUTER_F ULL	8.9078	9.421	PASS
DC_66A_N5A	15KHZ	10MHZ+1 0MHZ	DFT-16QAM	MID	OUTER_F ULL	8.9230	9.448	PASS
DC_66A_N5A	15KHZ	10MHZ+1 0MHZ	DFT-64QAM	MID	OUTER_F ULL	8.9113	9.498	PASS
DC_66A_N5A	15KHZ	10MHZ+1 0MHZ	DFT-256QAM	MID	OUTER_F ULL	8.9187	9.382	PASS
DC_66A_N5A	15KHZ	10MHZ+1 5MHZ	DFT-PI2BPSK	MID	OUTER_F ULL	13.468	14.31	PASS
DC_66A_N5A	15KHZ	10MHZ+1 5MHZ	DFT-QPSK	MID	OUTER_F ULL	13.460	14.32	PASS
DC_66A_N5A	15KHZ	10MHZ+1 5MHZ	DFT-16QAM	MID	OUTER_F ULL	13.481	14.26	PASS
DC_66A_N5A	15KHZ	10MHZ+1 5MHZ	DFT-64QAM	MID	OUTER_F ULL	13.478	14.26	PASS
DC_66A_N5A	15KHZ	10MHZ+1 5MHZ	DFT-256QAM	MID	OUTER_F ULL	13.467	14.27	PASS

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DC_66A_ N5A	15KHZ	5MHZ+20 MHZ	DFT-PI2BPS K	MID	OUTER_F ULL	17.873	18.70	PASS
DC_66A_ N5A	15KHZ	5MHZ+20 MHZ	DFT-QPSK	MID	OUTER_F ULL	17.894	18.73	PASS
DC_66A_ N5A	15KHZ	5MHZ+20 MHZ	DFT-16QAM	MID	OUTER_F ULL	17.868	18.72	PASS
DC_66A_ N5A	15KHZ	5MHZ+20 MHZ	DFT-64QAM	MID	OUTER_F ULL	17.863	18.80	PASS
DC_66A_ N5A	15KHZ	5MHZ+20 MHZ	DFT-256QA M	MID	OUTER_F ULL	17.884	18.78	PASS

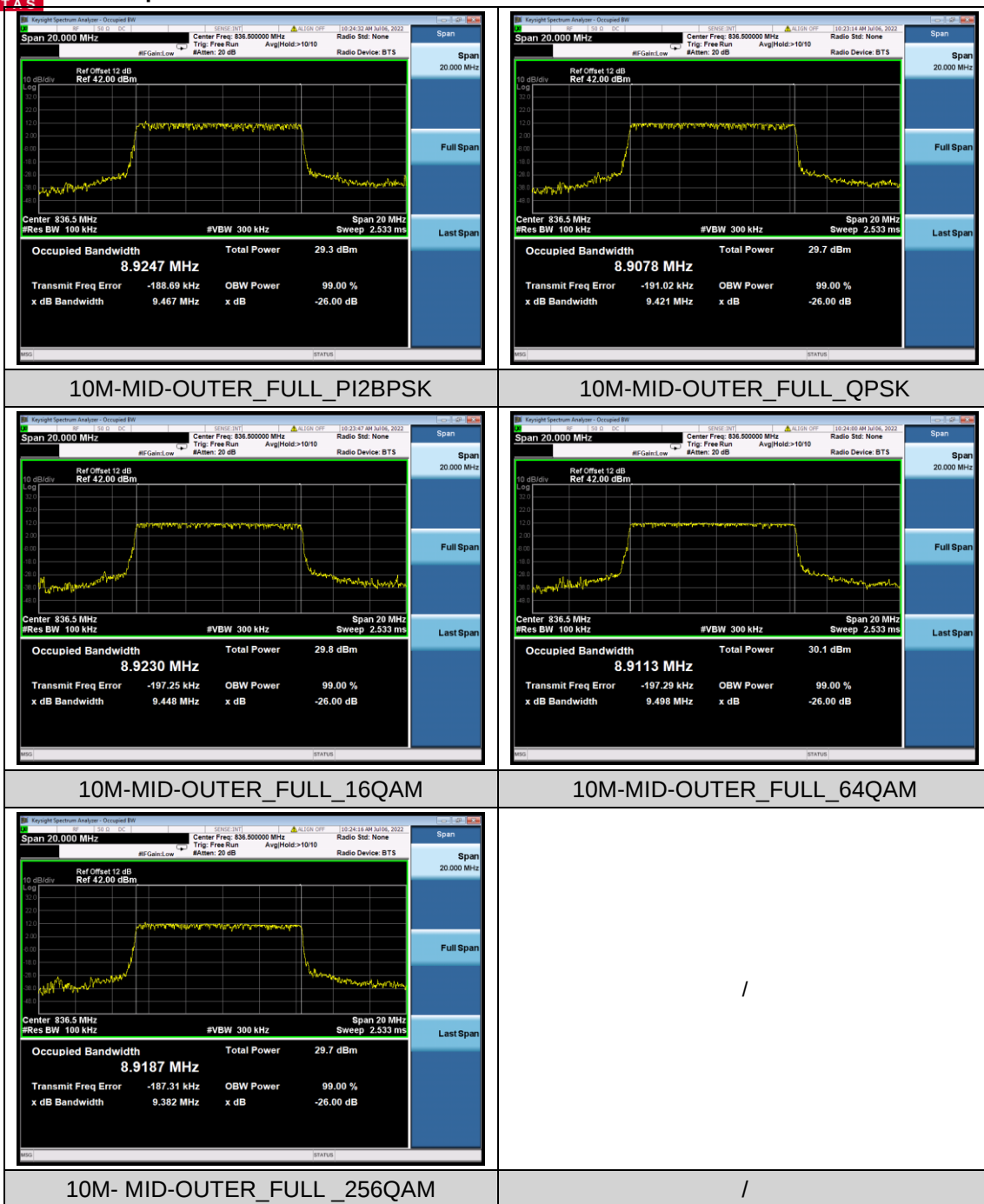
TEST GRAPHS

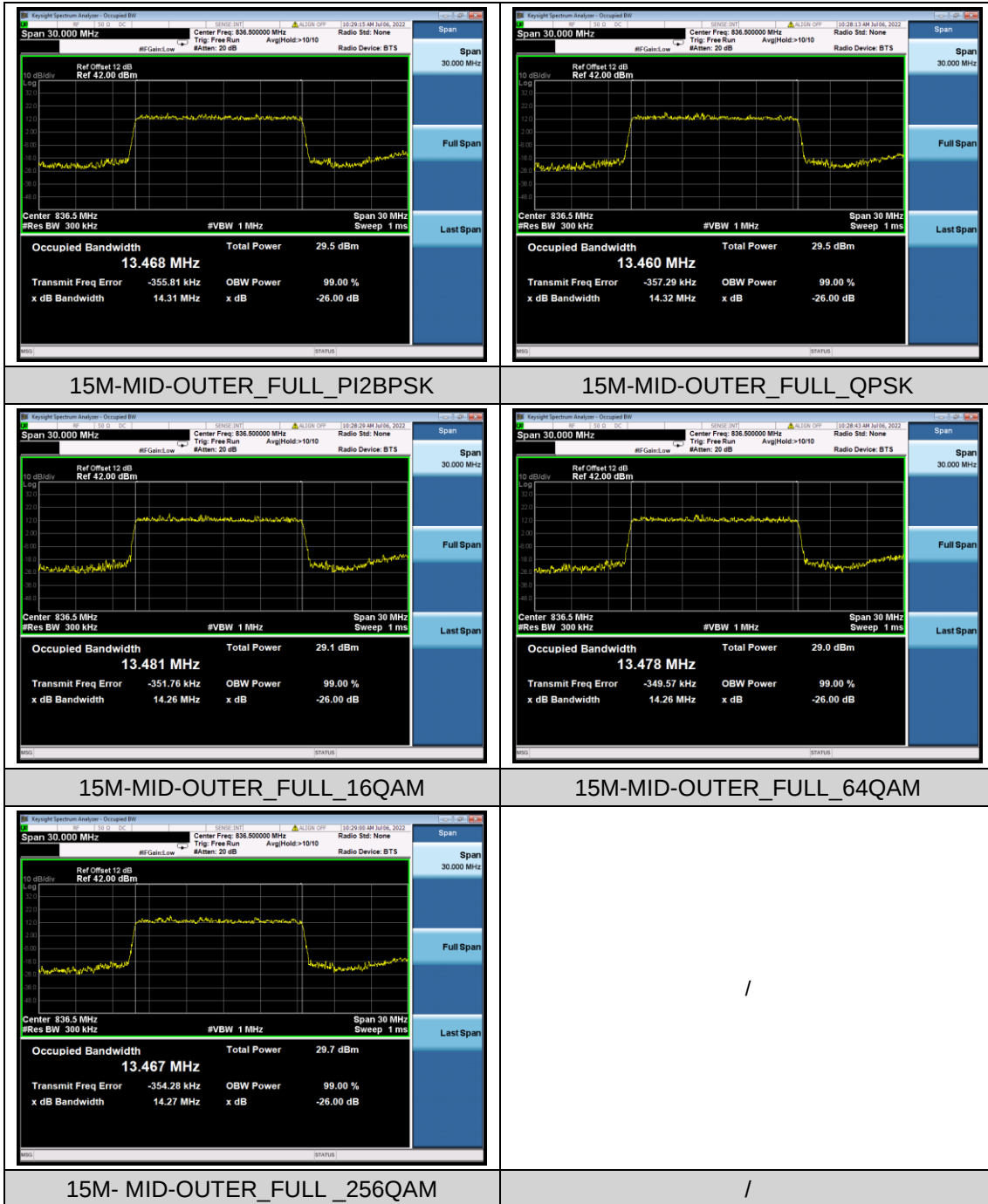




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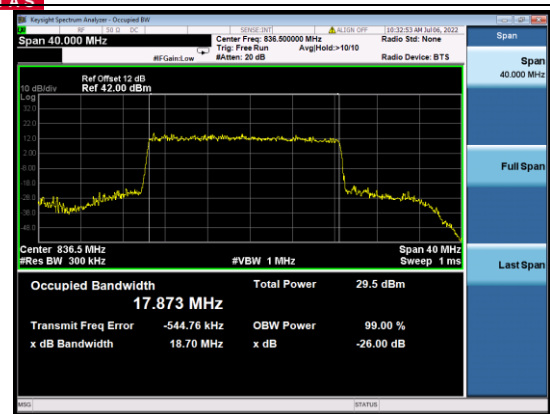




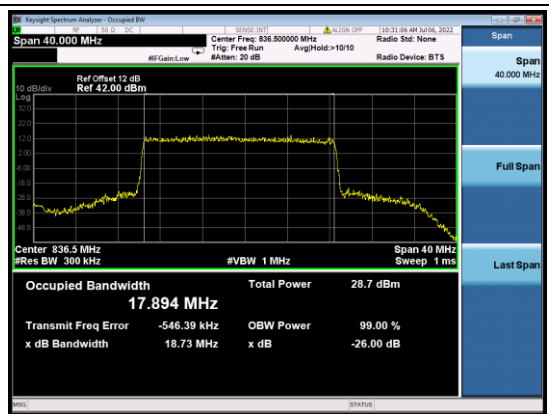


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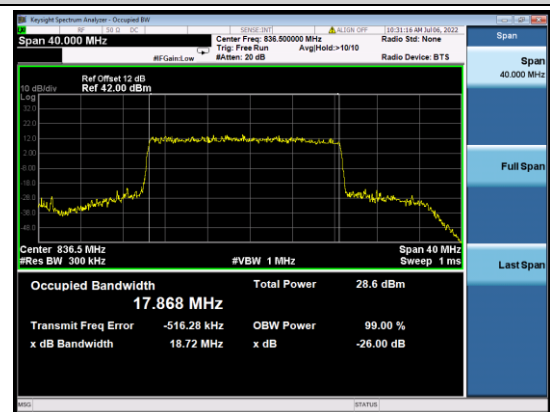
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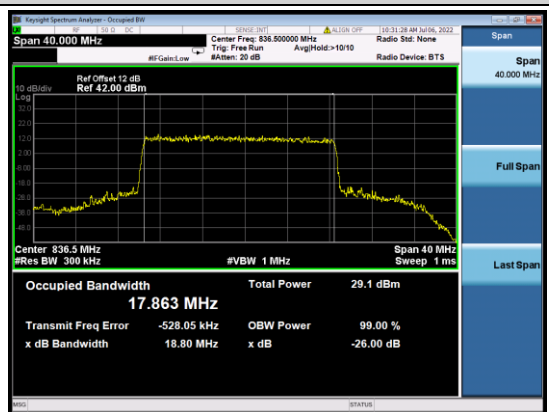
20M-MID-OUTER_FULL_PI2BPSK



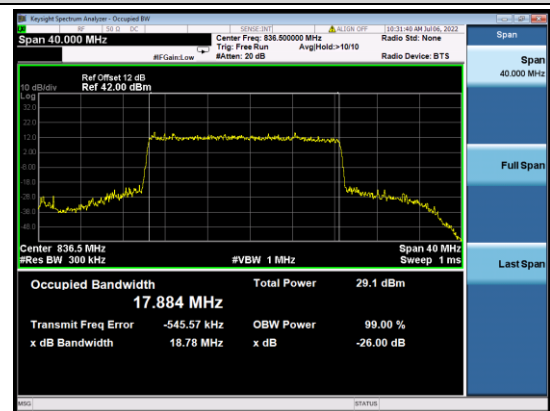
20M-MID-OUTER_FULL_QPSK



20M-MID-OUTER_FULL_16QAM



20M-MID-OUTER_FULL_64QAM



20M- MID-OUTER_FULL_256QAM

/

/

BAND EDGE

TEST RESULT

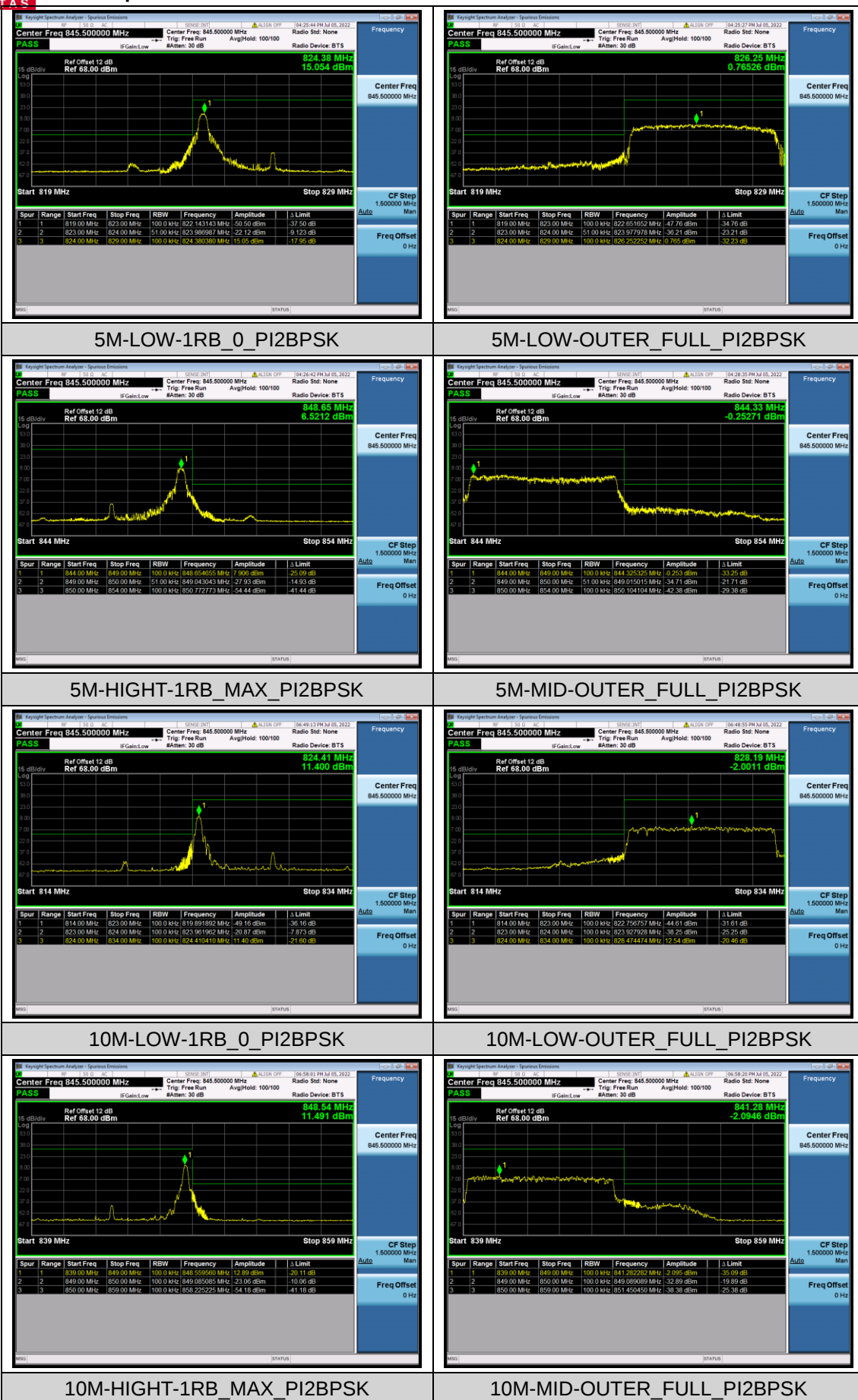
BAND	SCS	BANDWIDTH	MODULATION	CHANNEL	RB CONFIG (NR)	RESULT	VERDICT
DC_66A_N5A	15KHZ	10MHZ+5MHZ	DFT-PI2BP SK	LOW	1RB_0	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+5MHZ	DFT-PI2BP SK	LOW	OUTER_FULL	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+5MHZ	DFT-PI2BP SK	HIGH	1RB_MAX	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+5MHZ	DFT-PI2BP SK	HIGH	OUTER_FULL	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+10MHZ	DFT-PI2BP SK	LOW	1RB_0	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+10MHZ	DFT-PI2BP SK	LOW	OUTER_FULL	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+10MHZ	DFT-PI2BP SK	HIGH	1RB_MAX	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+10MHZ	DFT-PI2BP SK	HIGH	OUTER_FULL	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+15MHZ	DFT-PI2BP SK	LOW	1RB_0	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+15MHZ	DFT-PI2BP SK	LOW	OUTER_FULL	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+15MHZ	DFT-PI2BP SK	HIGH	1RB_MAX	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+15MHZ	DFT-PI2BP SK	HIGH	OUTER_FULL	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+20MHZ	DFT-PI2BP SK	LOW	1RB_0	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+20MHZ	DFT-PI2BP SK	LOW	OUTER_FULL	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+20MHZ	DFT-PI2BP SK	HIGH	1RB_MAX	SEE GRAPH	PASS
DC_66A_N5A	15KHZ	10MHZ+20MHZ	DFT-PI2BP SK	HIGH	OUTER_FULL	SEE GRAPH	PASS

TEST GRAPHS



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BV 7Layers Communications
Technology (Shenzhen) Co., Ltd

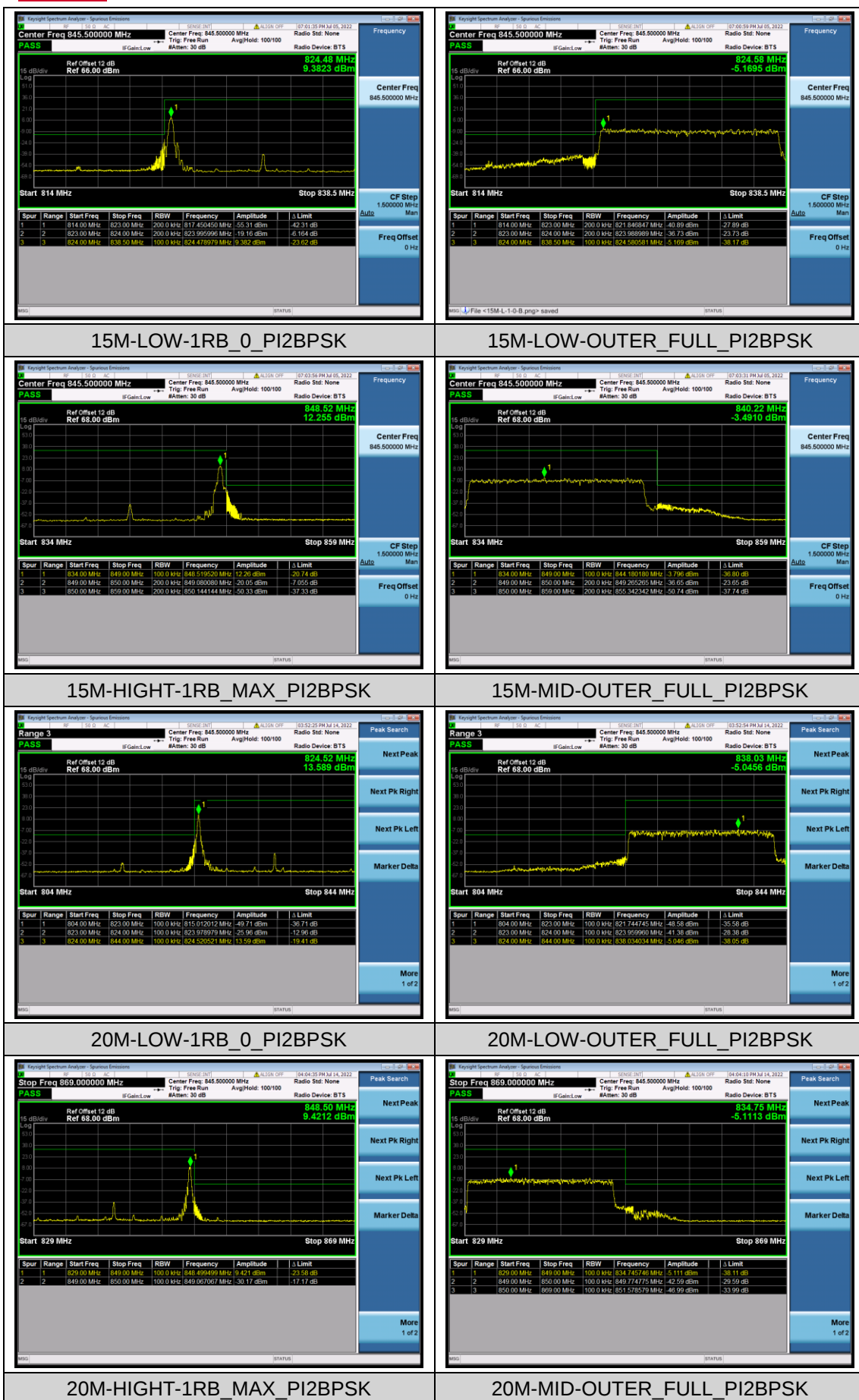
No.B102, Dazu Chuangxin Mansion, North of Beihuan
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CONDUCTED SPURIOUS EMISSION

TEST RESULT

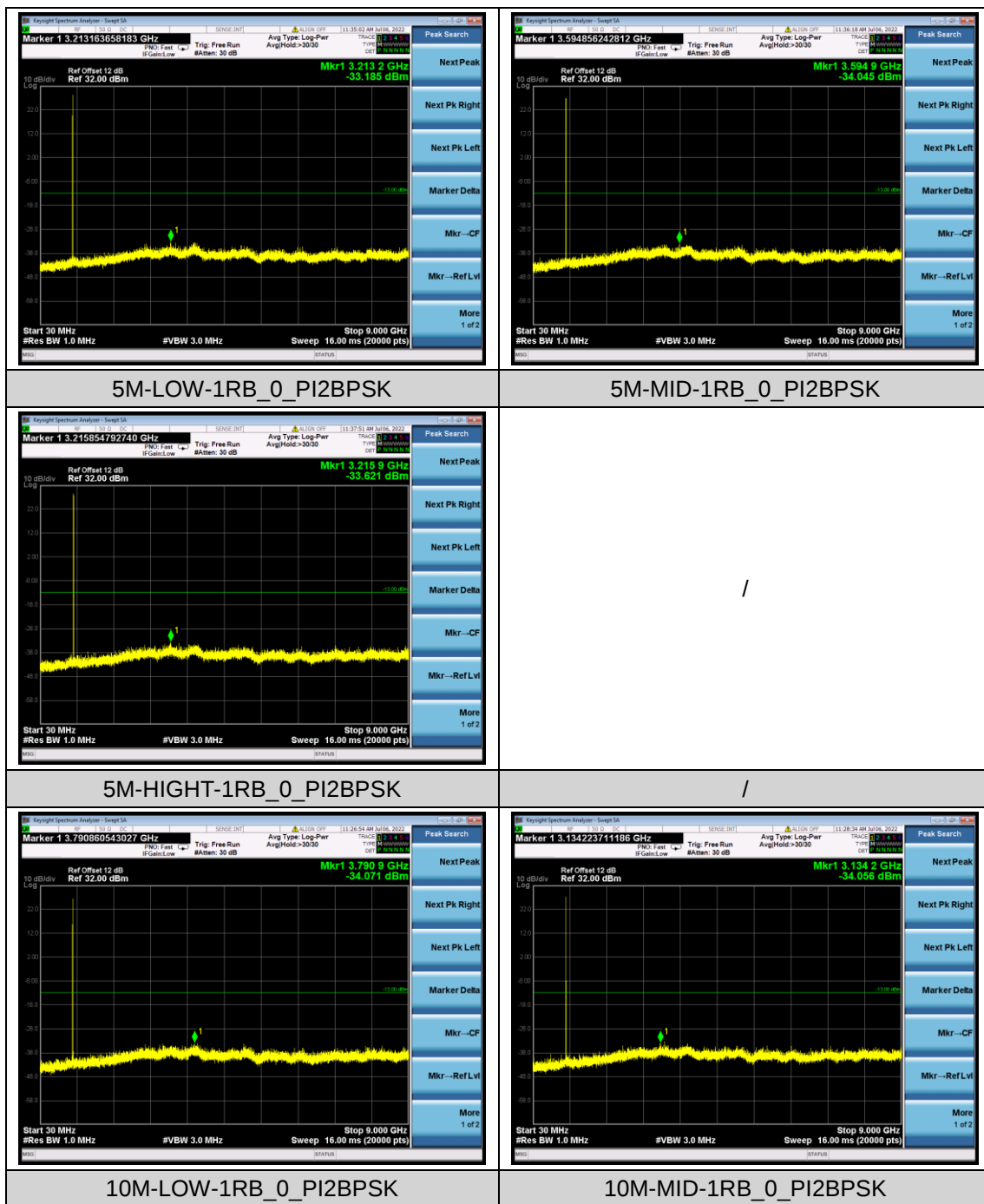
BAND	SCS	BAND WIDTH	MODULATI ON	CHANN EL	RB CONFIG (NR)	STARTF REQ	STOPFR EQ	RESULT	LIMIT (dBm)	VERDI CT
DC_66A_ N5A	15KH Z	5MHZ	DFT-PI2B PSK	LOW	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS
DC_66A_ N5A	15KH Z	5MHZ	DFT-PI2B PSK	MID	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS



DC_66A_ N5A	15KH Z	5MHZ	DFT-PI2B PSK	HIGH	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS
DC_66A_ N5A	15KH Z	10MHZ	DFT-PI2B PSK	LOW	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS
DC_66A_ N5A	15KH Z	10MHZ	DFT-PI2B PSK	MID	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS
DC_66A_ N5A	15KH Z	10MHZ	DFT-PI2B PSK	HIGH	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS
DC_66A_ N5A	15KH Z	15MHZ	DFT-PI2B PSK	LOW	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS
DC_66A_ N5A	15KH Z	15MHZ	DFT-PI2B PSK	MID	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS
DC_66A_ N5A	15KH Z	15MHZ	DFT-PI2B PSK	HIGH	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS
DC_66A_ N5A	15KH Z	20MHZ	DFT-PI2B PSK	LOW	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS
DC_66A_ N5A	15KH Z	20MHZ	DFT-PI2B PSK	MID	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS
DC_66A_ N5A	15KH Z	20MHZ	DFT-PI2B PSK	HIGH	1RB_0	30MHZ	20GHZ	SEE GRAPH	-13	PASS



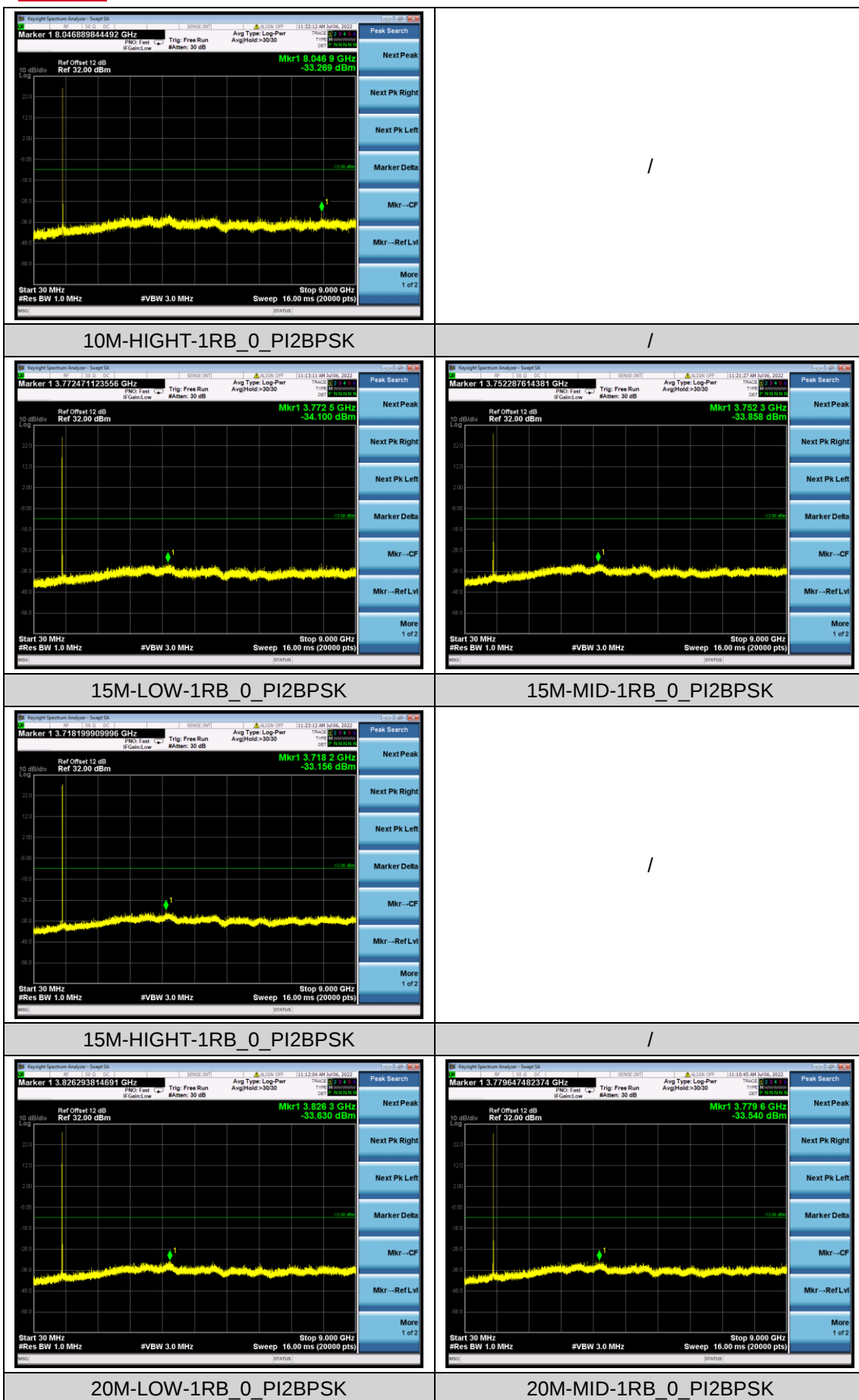
TEST GRAPHS





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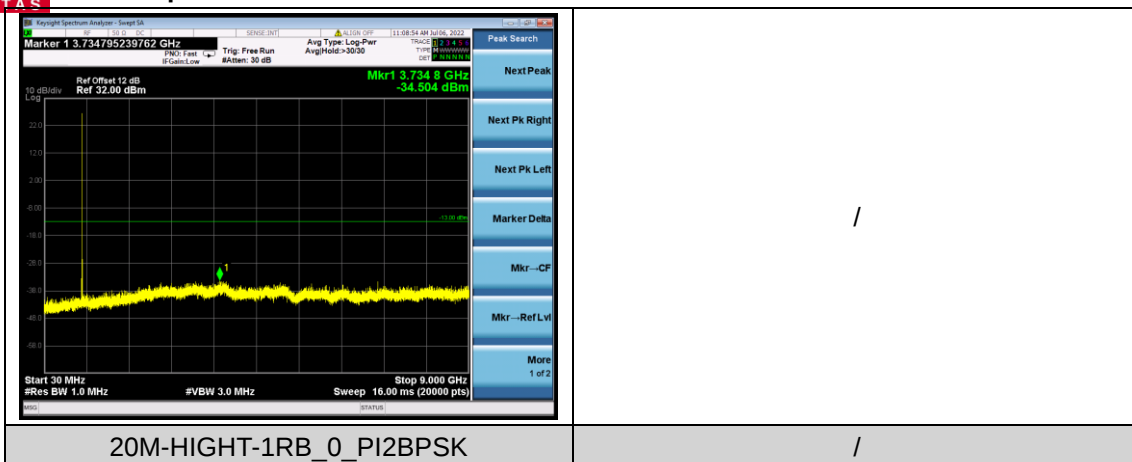
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FREQUENCY STABILITY

TEST RESULT

EN_DC_66A_N5A / BANDWIDTH: 20MHZ / NTNV												
MOD.	RB ALLOCATION		TEMP. (°C)	VOLTAGE (VDC)	FREQ. ERROR (HZ)			FREQ. VS. RATED (PPM)				VERDICT
	SIZE	OFFSET			LCH	MCH	HCH	LCH	MCH	HCH	LIMIT	
PI2BPSK	FULL	0	20	3.6	1.23	1.36	1.35	0.0015	0.0016	0.0016	-2.5 TO 2.5	PASS
				4.0	-1.52	-1.58	-1.52	-0.0018	-0.0019	-0.0018	-2.5 TO 2.5	PASS
				4.4	1.28	1.47	1.48	0.0015	0.0018	0.0018	-2.5 TO 2.5	PASS
			-30	4.0	-10.21	-10.89	-10.32	-0.0122	-0.0130	-0.0123	-2.5 TO 2.5	PASS
			-20	4.0	-9.36	-9.98	-9.44	-0.0112	-0.0119	-0.0113	-2.5 TO 2.5	PASS
			-10	4.0	-8.15	-8.69	-8.19	-0.0098	-0.0104	-0.0098	-2.5 TO 2.5	PASS
			0	4.0	-6.65	-7.09	-6.64	-0.0080	-0.0085	-0.0079	-2.5 TO 2.5	PASS
			10	4.0	-5.36	-5.72	-5.31	-0.0064	-0.0068	-0.0063	-2.5 TO 2.5	PASS
			30	4.0	-4.18	-4.46	-4.09	-0.0050	-0.0053	-0.0049	-2.5 TO 2.5	PASS
			40	4.0	-3.65	-3.89	-3.54	-0.0044	-0.0047	-0.0042	-2.5 TO 2.5	PASS
			50	4.0	-1.85	-1.97	-1.68	-0.0022	-0.0024	-0.0020	-2.5 TO 2.5	PASS