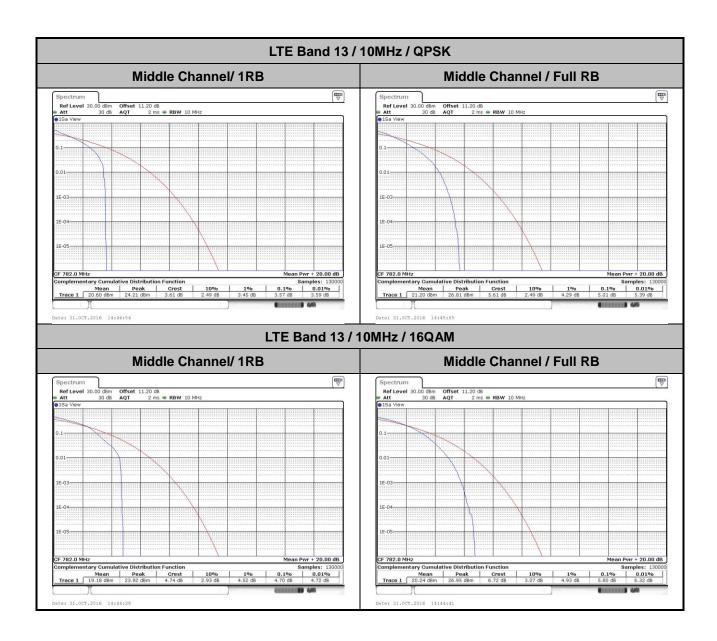
LTE Band 13

Peak-to-Average Ratio

Mode						
Mod.	QP	SK	16C	Limit: 13dB		
RB Size	1RB	Full RB	1RB	Full RB	Result	
Lowest CH	-	-	-	-		
Middle CH	3.57	5.01	4.7	5.8	PASS	
Highest CH	-	-	-	-		

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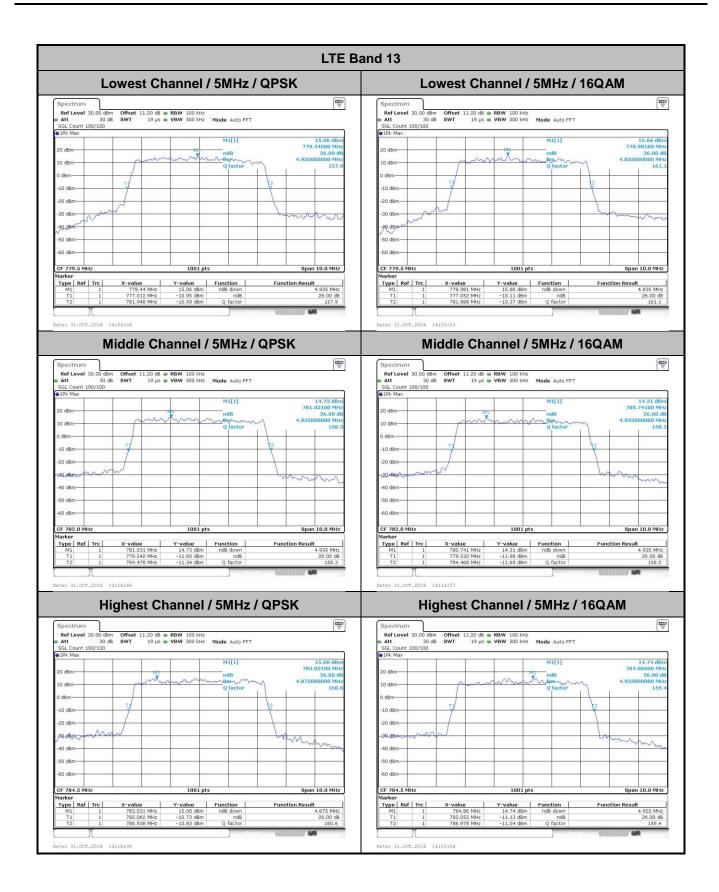
26dB Bandwidth

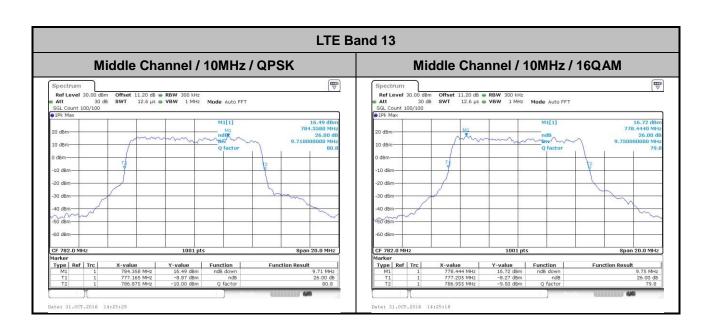
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.94	4.84	-	-	-	-	-	-
Middle CH	-	-	-	-	4.94	4.94	9.71	9.75	-	-	-	-
Highest CH	-	-	-	-	4.88	4.93	-	-	-	-	-	-

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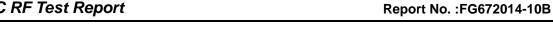


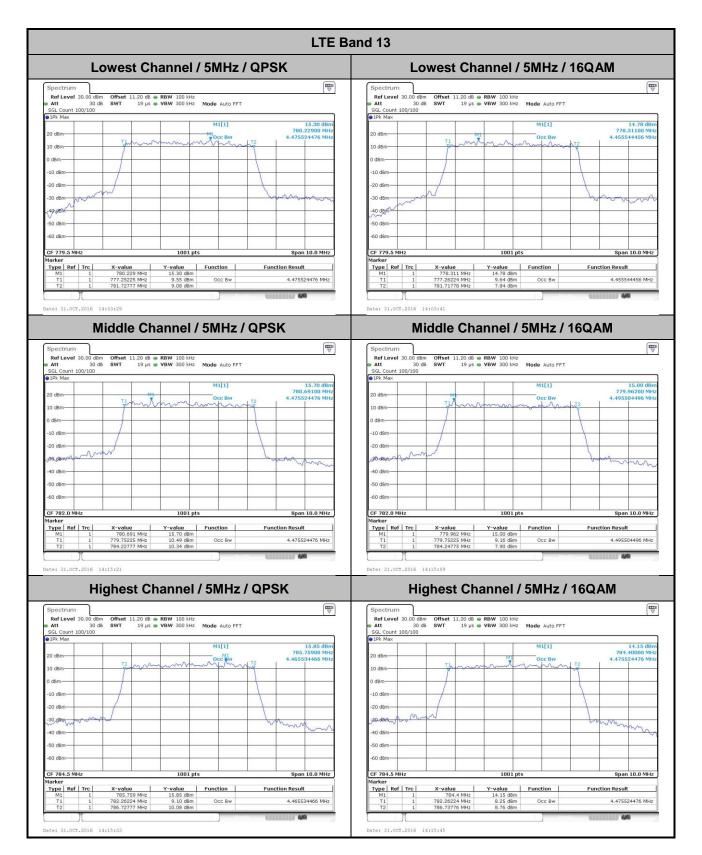
Occupied Bandwidth

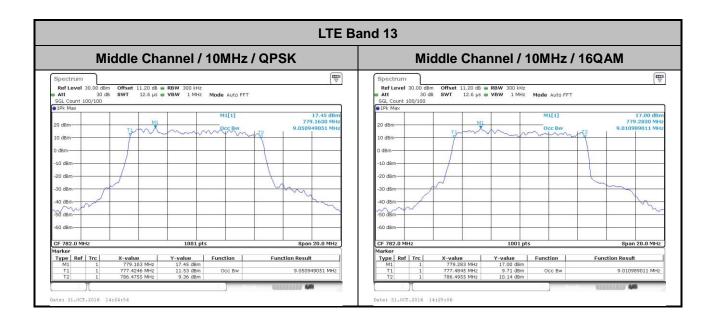
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.48	4.46	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	4.5	9.05	9.01	-	-	-	-
Highest CH	-	-	-	-	4.47	4.48	-	-	-	-	-	-

Report No. :FG672014-10B

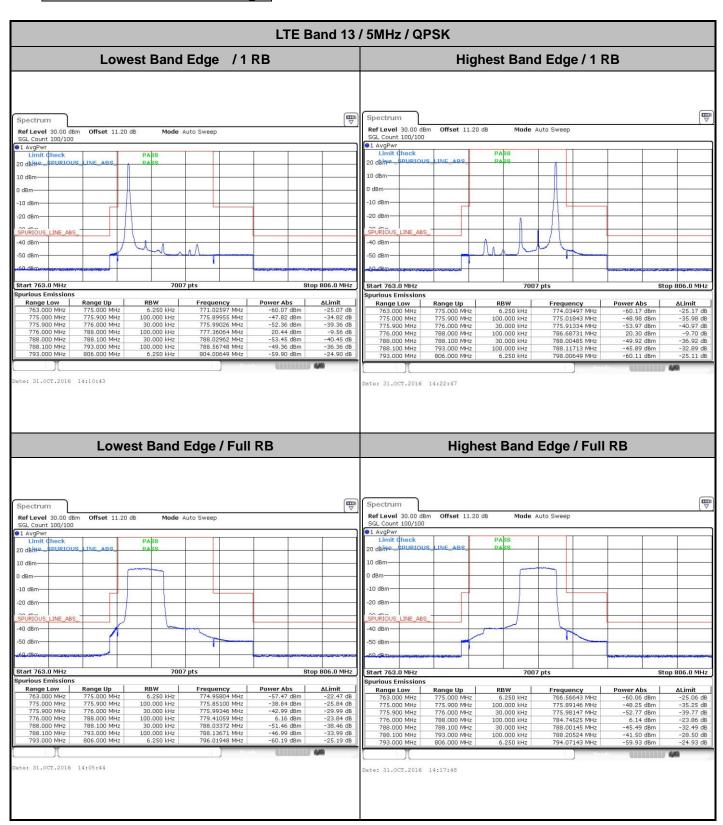
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Conducted Band Edge



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LTE Band 13 / 5MHz / 16QAM Highest Band Edge / 1 RB Lowest Band Edge /1 RB Spectrum Spectrum Ref Level 30.00 dBm Offset 11.20 dB Mode Auto Sweep Ref Level 30.00 Offset 11.20 dB Mode Auto Sween Count 100/100 SGL Count 100/100 ●1 AvgPwr Limit Check 1 AvgPw 20 dbine 10 dBm 10 dBm dBm -10 dBm -10 dBm 20 dBm 20 dBm SPURIOUS 40 dBm-40 dBm-50 dBm Start 763.0 MHz rious Emission: Range Up
775.000 MHz
775.900 MHz
776.000 MHz
788.000 MHz
788.100 MHz
793.000 MHz
806.000 MHz Frequency
770.19880 MHz
775.89067 MHz
775.99645 MHz
777.31269 MHz
788.05889 MHz
788.60664 MHz
795.21429 MHz -59.98 dBm -59.98 dBm -48.09 dBm -52.61 dBm 19.31 dBm -53.69 dBm RBW 6.250 kHz 100.000 kHz 30.000 kHz 100.000 kHz 30.000 kHz 100.000 kHz 6.250 kHz 763.000 MHz 763.000 MHz 775.000 MHz 775.900 MHz 776.000 MHz 788.000 MHz 788.100 MHz 793.000 MHz ate: 31.0CT.2016 14:09:03 Lowest Band Edge / Full RB **Highest Band Edge / Full RB** Spectrum Spectrum Mode Auto Sweep Offset 11.20 dB Mode Auto Sweep Ref Level 30.00 dBm Offset 11.20 dB SGL Count 100/100 AvgPwr
 Limit Check 1 AvgPwr Limit ¢h 20 dbine 10 dam dBm dBm -10 dBm 20 dBm -20 dBm SPURIOUS_LINE_ABS 40 dBm-40 dBm-Start 763.0 MHz Start 763.0 MHz rious Emissions rious Emissions RBW 6.250 kHz 100.000 kHz 30.000 kHz 100.000 kHz 30.000 kHz 100.000 kHz Frequency
774.98202 MHz
775.86089 MHz
775.99326 MHz
778.59540 MHz
788.02772 MHz
788.15629 MHz Range Low
763.000 MHz
775.000 MHz
775.900 MHz
776.000 MHz
788.000 MHz
788.100 MHz -22.86 dB -26.43 dB -30.63 dB -24.75 dB -38.79 dB -34.49 dB -24.83 dB 763.000 MHz 775.000 MHz 775.900 MHz 776.000 MHz 788.000 MHz 788.100 MHz 776.000 MHz 788.000 MHz 788.100 MHz 793.000 MHz 794.33117 MHz te: 31.0CT.2016 14:07:23 Date: 31.0CT.2016 14:19:27

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LTE Band 13 / 10MHz / QPSK Lowest Band Edge / 1 RB Highest Band Edge / 1 RB 7 **W** Spectrum Offset 11.20 dB Mode Auto Sweep Ref Level 30.00 dBm Offset 11.20 dB Mode Auto Sweep SGL Count 100/100 ●1 AvgPw 20 dbine 20 dbine 10 dBm dBm dBm -10 dBm 20 dBm -20 dBm-PURIOUS 40 dBm-40 dBmrious Emissions Spurious Emissior ΔLimit
-24.98 dB
-34.96 dB
-39.38 dB
-9.54 dB
-40.52 dB
-36.26 dB
-25.13 dB Range Up 775.000 MHz ΔLimit
-25.17 dB
-35.81 dB
-40.72 dB
-9.61 dB
-37.46 dB
-33.36 dB
-24.95 dB 763.000 MHz 775.000 MHz 775.900 MHz 776.000 MHz 788.000 MHz 788.100 MHz 793.000 MHz 775.000 MHz 775.900 MHz 776.000 MHz 788.000 MHz 788.100 MHz 793.000 MHz 806.000 MHz 6.250 kHz 100.000 kHz 30.000 kHz 100.000 kHz 30.000 kHz 100.000 kHz 6.250 kHz 775.000 MHz 775.900 MHz 776.000 MHz 788.000 MHz 788.100 MHz 100.000 kHz 775.89865 MHz 775.97248 MHz 777.61239 MHz 788.08407 MHz ate: 31.0CT.2016 14:32:08 Date: 31.0CT.2016 14:33:48 Band Edge / Full RB 7 Spectrum Ref Level 30.00 dBm Offset 11.20 dB Mode Auto Sweep SGL Count 100/100 ●1 AvgPwr Limit Check 20 dbine_spurious 10 dBm-0 dBm--10 dBm--20 dBm SPURIOUS LINE_ABS -50 dBm Start 763.0 MHz 7007 pts Stop 806.0 MHz Spurious Emissions **Range Up** 775.000 MHz 775.900 MHz Frequency 774.91009 MHz 775.87168 MHz Range Low RBW Power Abs 6.250 kHz 100.000 kHz -24.71 dB -28.05 dB -59.71 dBm -41.05 dBm 763,000 MHz 775.000 MHz -31.55 dB -26.51 dB 775.900 MHz 776.000 MHz 30.000 kHz 775.97687 MHz -44.55 dBm 776.000 MHz 788.000 MHz -45.03 dBm 788,000 MHz 788,100 MHz 30.000 kHz 788.09935 MHz -32.03 dB

788.100 MHz

793.000 MHz

793.000 MHz

806.000 MHz

100.000 kHz

6.250 kHz

788.24930 MHz

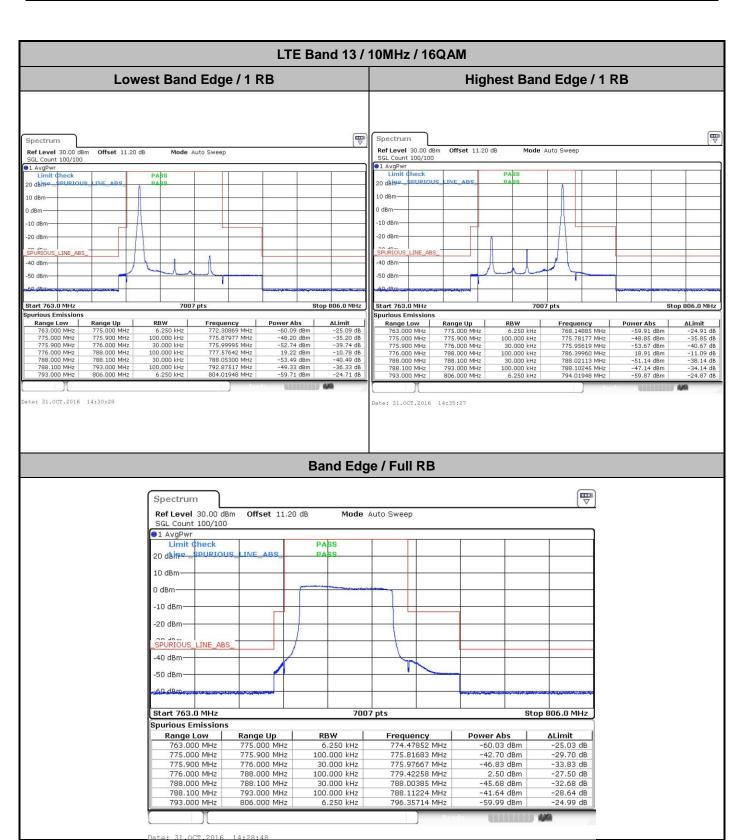
801.43506 MHz

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-25.07 dB

-40.24 dBm

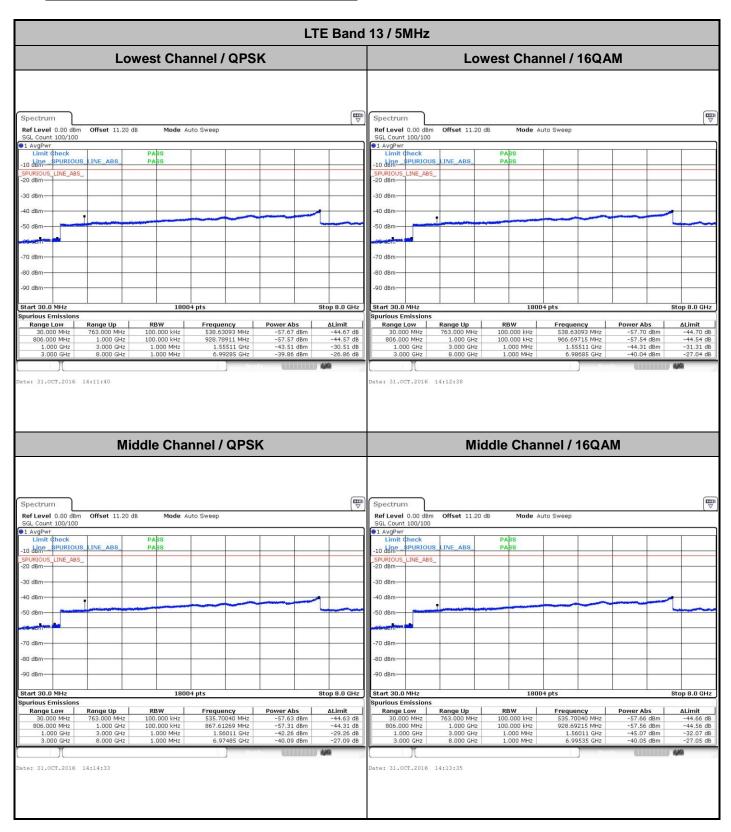
-60.07 dBm



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Conducted Spurious Emission



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Report No.: FG672014-10B LTE Band 13 / 5MHz **Highest Channel / QPSK Highest Channel / 16QAM** Spectrum Spectrum Ref Level 0.00 dBm Offset 11.20 dB Ref Level 0.00 dBm Offset 11.20 dB Mode Auto Sweep Mode Auto Sweep GL Count 100/100 SGL Count 100/100 10 dBm SPURIOUS Line SPURIOUS LINE ABS 70 dBm -70 dBm 80 dBm 80 dBm 90 dBm Start 30.0 MHz Stop 8.0 GHz Start 30.0 MHz 1800 op 8.0 GHz rious Emissio Spurious Emissions Range Low 30,000 MHz 806,000 MHz 1,000 GHz 3,000 GHz RBW 100.000 kHz 100.000 kHz 1.000 MHz 1.000 MHz Frequency 532.76987 MHz 953.41479 MHz 1.56511 GHz 6.99535 GHz Power Abs -57.39 dBm -57.49 dBm -43.13 dBm -40.12 dBm Range Low 30.000 MHz 806.000 MHz 1.000 GHz 3.000 GHz RBW 100.000 kHz 100.000 kHz 1.000 MHz 1.000 MHz Frequency 532.76987 MHz 856.85107 MHz 1.56511 GHz 6.98935 GHz Power Abs -57.77 dBm -57.26 dBm -44.49 dBm -39.94 dBm ΔLimit
-44.77 dB
-44.26 dB
-31.49 dB
-26.94 dB Range Up 763.000 MHz 1.000 MHz 1.000 GHz 3.000 GHz 8.000 GHz 1.000 GHz 3.000 GHz 8.000 GHz te: 31.0CT.2016 14:23:44 ate: 31.0CT.2016 14:24:42 LTE Band 13 / 10MHz Middle Channel / QPSK Middle Channel / 16QAM Spectrum Spectrum Mode Auto Sweep Ref Level 0.00 dBm Offset 11.20 dB Mode Auto Sweep Ref Level 0.00 dBm Offset 11.20 dB SGL Count 100/100 SGL Count 100/100 10 dBm SPURIOUS LINE_ABS 10 dem SPURIOUS 80 dBm 80 dBm 90 dBm Start 30.0 MHz Stop 8.0 GHz Stop 8.0 GHz 18004 pts Start 30.0 MHz Spurious Emissions Range Up RBW 100.000 kHz 100.000 kHz 1.000 MHz 1.000 MHz Power Abs -57.66 dBm -57.57 dBm -42.77 dBm -39.96 dBm RBW 100.000 kHz 100.000 kHz Frequency 538.26462 MHz 947.79160 MHz 1.55511 GHz 6.97185 GHz Power Abs -57.91 dBm -57.39 dBm -44.77 dBm -40.01 dBm 30.000 MHz 806.000 MHz Frequency 538.26462 MHz 943.62269 MHz Range Low 30.000 MHz Range Up 763.000 MHz ΔLimit -44.91

806.000 MHz

ate: 31.0CT.2016 14:36:24

1.000 GHz 3.000 GHz

TEL: 886-3-327-3456 FAX: 886-3-328-4978

1.000 GHz

ste: 31.0CT.2016 14:37:22

Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
		BW 10MHz	Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0001	
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0026	PASS
-20	Normal Voltage	0.0091	
-30	Normal Voltage	0.0087	
20	Maximum Voltage	0.0082	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0005	

Note:

- 1. Normal Voltage =3.6 V.; Battery End Point (BEP) =3.45 V.; Maximum Voltage =4.2 V.
- 2. Note: The frequency fundamental emissions stay within the authorized frequency block.

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