

Appendix A-RF Output Power and Amplifier Gain
Test Data:

FDD LTE Band 12									
Mode	Operation Band	Frequency (MHz)	Signal Type	Signal Level (dBm)	Input Power (dBm)	Output Power (dBm)		Total Output Power (dBm)	Gain (dB)
						Ant 1	Ant 2		
SISO Mode									
Downlink	729MHz ~746MHz	737.2MHz	AWGN	Pre-AGC	0	42.37	--	42.37	42.37
				3dB Above AGC	3	42.54	--	42.54	/
		737.2MHz	GSM	Pre-AGC	0	42.12	--	42.12	42.12
				3dB Above AGC	3	42.26	--	42.26	/
MIMO Mode									
Downlink	729MHz ~746MHz	737.2MHz	AWGN	Pre-AGC	0	42.37	42.52	45.46	/
				3dB Above AGC	3	42.54	42.5	45.53	/
		737.2MHz	GSM	Pre-AGC	0	42.12	41.98	45.06	/
				3dB Above AGC	3	42.26	42.36	45.32	/
Remark: As the limit is an ERP limit the gain in dBi has been converted to dBd. The dBd value was calculated as: $12.5 \text{ dBi} - 2.15 \text{ dB} = 10.35 \text{ dBd}$. The ERP of the EUT is 55.88dBm which is less than the ERP of 1000 watts/MHz and an antenna height of 305 m HAAT. The EUT supports SISO working mode. Each antenna can be used as SISO working port. We only present the worst result, the test data of ant 1 port. This EUT also supports 2*2 MIMO. For MIMO mode the output signals are considered completely uncorrelated, so the antenna gain is 12.5dBi.									



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FDD LTE Band 13									
Mode	Operation Band	Frequency (MHz)	Signal Type	Signal Level (dBm)	Input Power (dBm)	Output Power (dBm)		Total Output Power (dBm)	Gain (dB)
						Ant 1	Ant 2		
SISO Mode									
Downlink	746MHz ~756MHz	753.1MHz	AWGN	Pre-AGC	0	42.29	--	42.29	42.29
				3dB Above AGC	3	42.37	--	42.37	/
		753.1MHz	GSM	Pre-AGC	0	42.08	--	42.08	42.08
				3dB Above AGC	3	42.14	--	42.14	/
MIMO Mode									
Downlink	746MHz ~756MHz	753.1MHz	AWGN	Pre-AGC	0	42.29	42.16	45.24	/
				3dB Above AGC	3	42.37	42.34	45.37	/
		753.1MHz	GSM	Pre-AGC	0	42.08	41.92	45.01	/
				3dB Above AGC	3	42.14	41.97	45.07	/
Remark: ERP of the EUT is 55.72dBm which is less than the ERP limit of which is 1000.0W. The EUT supports SISO working mode. Each antenna can be used as SISO working port. We only present the worst result, the test data of ant 1 port. This EUT also supports 2*2 MIMO. For MIMO mode the output signals are considered completely uncorrelated, so the antenna gain is 12.5dBi.									



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Mode	Operation Band	Frequency (MHz)	Signal Type	Signal Level (dBm)	Input Power (dBm)	PAPR (dB)	Limit (dB)
FDD LTE Band 12							
Downlink	729MHz ~746MHz	737.5MHz	AWGN	Pre-AGC	0	8.41	13.0
				3dB Above AGC	3	8.39	13.0
		737.5MHz	GSM	Pre-AGC	0	0.07	13.0
				3dB Above AGC	3	0.07	13.0
FDD LTE Band 13							
Downlink	746MHz ~756MHz	751.0MHz	AWGN	Pre-AGC	0	8.40	13.0
				3dB Above AGC	3	8.43	13.0
		751.0MHz	GSM	Pre-AGC	0	0.06	13.0
				3dB Above AGC	3	0.05	13.0



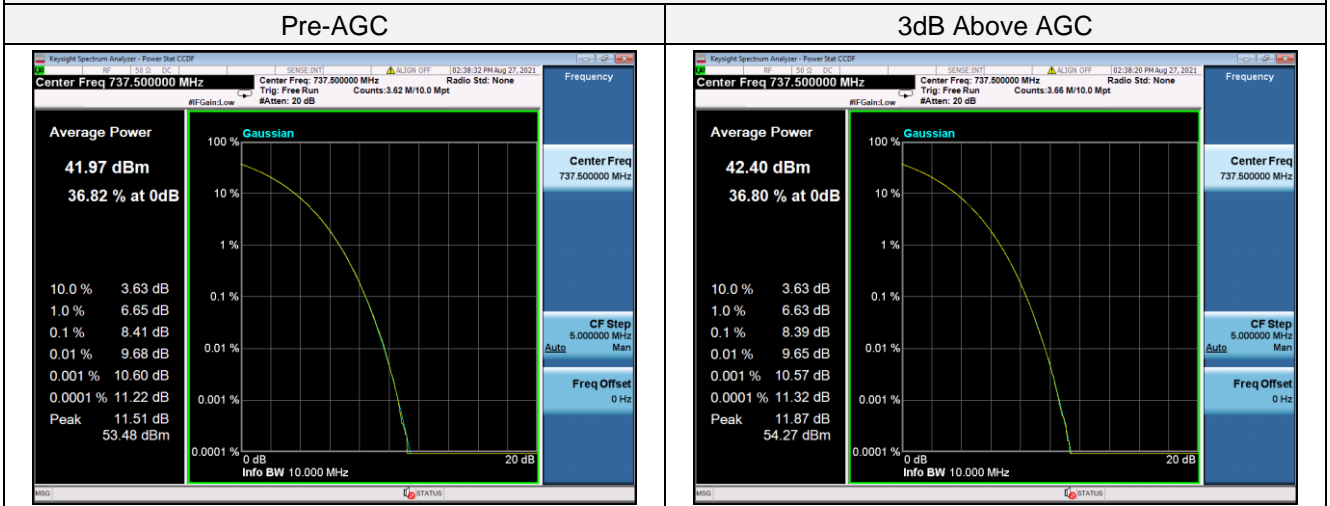
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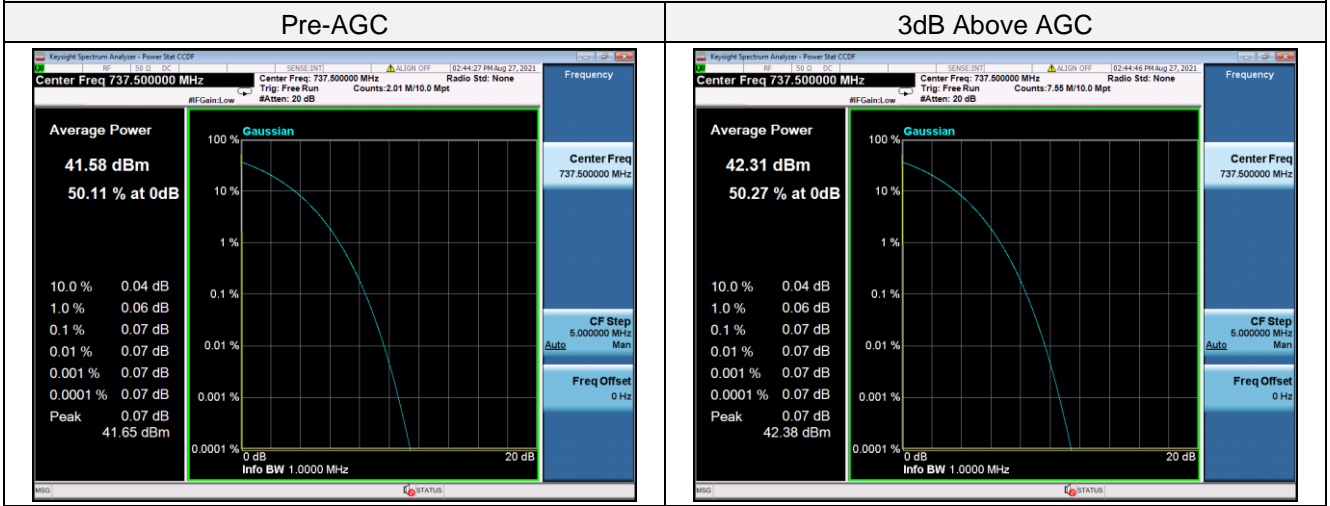
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FDD LTE Band 12 _ AWGN



FDD LTE Band 12 _ GSM

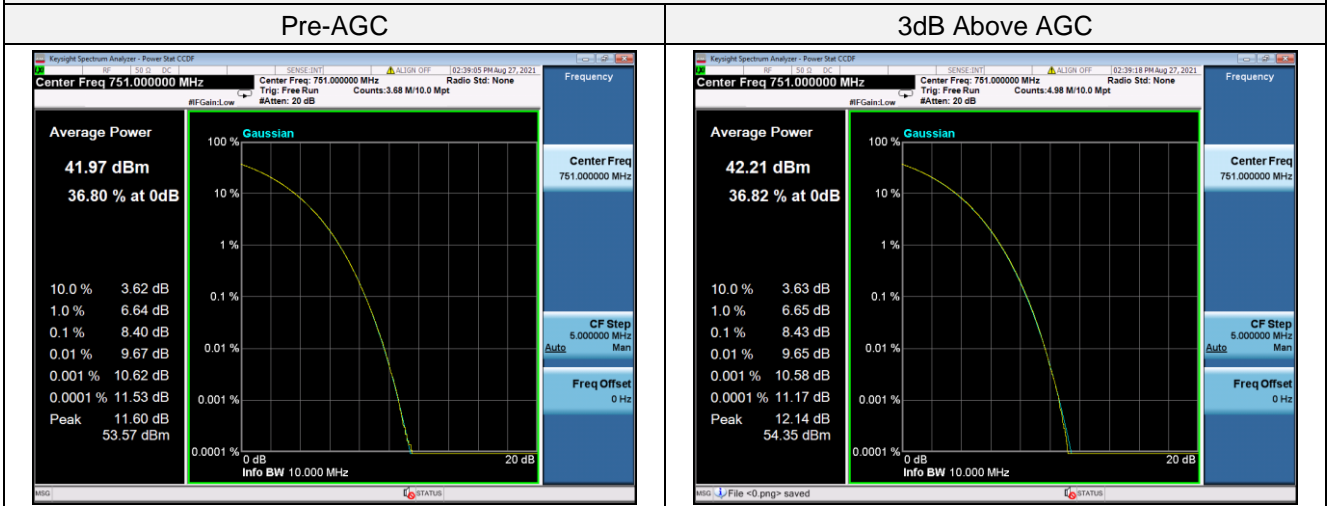


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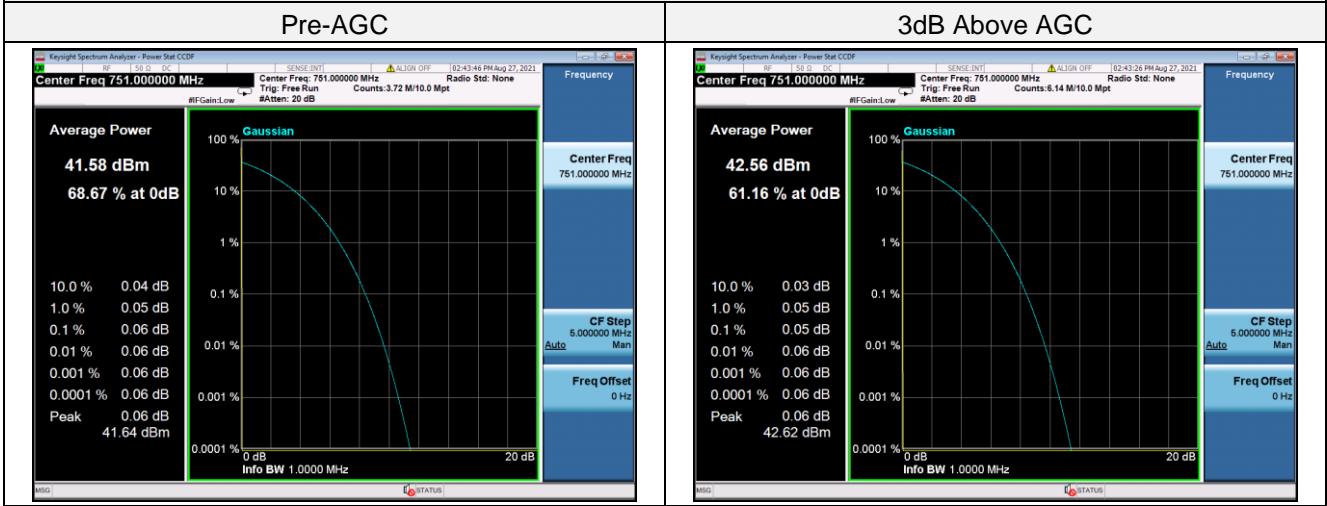
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