

List of Figure

2.1	The Road Map For LTE In 3GPP From Global Mobile future Suppliers Association	5
2.2	Long Term Evolution Architecture.....	8
2.3	Control Plane Protocol Stack.....	10
2.4	User Plane Protocol Stack	10
2.5	Multiple Access Schemes For Downlink.....	13
2.6	Multiple Access Schemes For Uplink.....	13
2.7	Generic Frame Structure.....	14
2.8	LTE Uplink Resource Grid.... ..	15
2.9	Resource Element Mapping Of Reference Signals For Single AntennaOnly.....	16
3.1	Power Control is One of the Functionalities of the Link Adaptation Unit	17
3.2	PUSCH Power Control Parameters Broadcasted by the eNB towards the UE.....	21
3.3	Block diagram of Steps Involved in Setting Uplink Power Using open loop power contrl.....	23
3.4	power control schemes categorized based on the value of α ...	25
3.5	Block diagram of steps involved in adjusting open loop point of operating using closed loop power control	30
3.6	Generation of the TPC command at the eNB.....	32
3.7	Combined open loop and closed loop with interference.....	37
4.1	GUI for the Uplink Power Control Mechanisms.....	48
4.2	Open Loop Power Control.....	49
4.3	Conventional Closed Loop Power Control.....	50

4.4	Generalized Interference Power Control Algorithm.....	50
4.5	Parameter of User Throughput	51
4.6	Parameter of Cell Throughput.....	52
4.7	The Power Spectral Density Parameters.....	53
4.8	The Carrier To Interference Noise Ratio Parameters.....	54
4.9	Combined Open and Closed Loop Power Control.....	55
4.10	PSDtx vs Path Loss Factor (FPC).....	56
4.11	PSD Compensation vs. Path gain.....	57
4.12	PCL vs Correction Factor.....	58
4.13	Power Closed Loop vs Path Loss Factor.....	60
4.14	User Throughput vs Number Of Physical Resource Block.....	61
4.15	User Throughput vs Carrier To Noise Ratio.....	62
4.16	Cell Throughput vs Number Of Physical Resource Block.....	63
4.17	Cell Throughput vs Number Of User.....	64
4.18	Power Spectral Density vs Interference Power Spectra Density.....	65
4.19	Power Spectral Density vs Path Gain To Nerest Interfered BS. Signal To Noise Ratio vs Path Gain.....	66
4.20	Signal To Noise Ratio vs Interference Power Spectral Density.....	68
4.21	Path Loss vs Prb.....	70
4.22	PSDtX vs Delta UE.....	71
4.23	Path Loss Factor vs Power Transmission.....	72
4.24	Power Spectral Density vs Power Transmission.....	73
