

Table of Contents

I.	INTRODUCTION	1
II.	QUALIFICATIONS	2
III.	SCOPE OF ASSIGNMENT	7
IV.	LEGAL PRINCIPLES USED IN ANALYSIS.....	7
V.	LTE OVERVIEW.....	9
VI.	RANDOM ACCESS PROCEDURE.....	12
VII.	U.S. PATENT NO. 8,385,966 (“966 patent”).....	14
VIII.	U.S. PATENT NO. 5,599,706 (“Qualcomm”).....	20
IX.	3GPP TS 36.213 v8.2.0 (“TS 36.213”).....	22
X.	3GPP TS 36.300 v8.4.0 (“TS 36.300”).....	22
XI.	U.S. PATENT PUBLICATION NO. 2010/0093386 (“386 publication”).....	22
XII.	CLAIMS OF THE ‘966 PATENT	23
A.	Claims 1, 9, and 10 of the ‘966 Patent.....	23
1.	“initial transmit power depends on a preamble power of first message ... and $f(0)$ ”	23
2.	“full path loss”	27
3.	“ $f(0)$ ” and “ $g(0)$ ”	29
4.	“transmit”	30
B.	Claims 3 and 12 of the ‘966 Patent.....	31
C.	Claims 4 and 13 of the ‘966 Patent.....	31
D.	Claims 2 and 11 of the ‘966 Patent.....	32
E.	Claims 5 and 14 of the ‘966 Patent.....	36
1.	“ P_{\max} ”	36
2.	“ $\Delta_{TF}(TF(i))$ ”	36
3.	“ P_{preamble} ”	37
4.	“ Δ_{PC_Msg3} ”	37
5.	“ $\Delta_{0,\text{preamble_Msg3}}$ ”	37
6.	“ $10 \log_{10}(M_{\text{PUSCH}}(i))$ ”	38
F.	Claims 6 and 15 of the ‘966 Patent.....	42
G.	Claims 7 and 16 of the ‘966 Patent.....	43
H.	Claims 8 and 17 of the ‘966 Patent.....	44