DAFTAR ISI

LEMBAR PENGESAHAN ii
LEMBAR PERNYATAAN ORISIONALITAS iii
ABSTRAK iv
KATA PENGANTAR ivi
UCAPAN TERIMAKASIH vii
DAFTAR ISI viii
DAFTAR GAMBAR xi
DAFTAR TABEL xii
DAFTAR ISTILAH xiv
DAFTAR SINGKATAN xv
DAFTAR LAMPIRAN xvi
BAB 1 PENDAHULUAN 1
1.1 Latar Belakang Masalah 1
1.2 Tujuan dan Manfaat 1
1.3 Rumusan Masalah 2
1.4 Batasan Masalah 2
1.5 Metodologi 2
1.6 Sistematika Penulisan 3
BAB II DASAR TEORI 5
2.1 Teknologi LTE 5
2.2 Indoor Building Coverage (IBC) 6
2.2.1 Trafik *Indoor Building Coverage* 6
2.2.2 Kondisi Lapangan 7
2.3 Perencanaan Jaringan 7
2.4 Sistem Distribusi Antena 8

2.5 *Capacity Planning* 9
2.5.1 *Subscribers Density* 9
2.5.2 *Service and Traffic Model Parameter* 9
2.5.3 *Peak to Average Ratio* 10
2.5.4 *Single User Throughput* (SUT) 10
2.5.5 *Network Throughput* 10
2.5.6 *Single Site Capacity* 11
2.5.7 *Capacity Sites* 12
2.6 *Coverage Planning* 12
2.6.1 *Input Data* 12
2.6.2 *Calculate UL/DL MAPL* 12
2.6.3 *Calculate DL Cell Radius* 14
2.6.4 *Calculate Site Coverage Area* 15
2.6.5 *Calculate Site Number* 15
2.7 Rf Parameter 15
2.8 *Walktest* 16
2.9 TEMS Pocket 17
2.10 Radiowave Propagation Simulation (RPS) 17
BAB III PERENCANAAN *INDOOR BUILDING COVERAGE* 18
3.1 Perencanaan *Indoor Building Coverage (IBC)* 18
3.2 Deskripsi Proyek Akhir 19
3.2.1 Studi Literatur 19
3.2.2 Menentukan Lokasi 19
3.2.3 Melakukan *Drive Test* dan *Walk Test* 21
3.2.4 Analisis *Drive Test* dan *WalkTest* 22
3.3. *Capacity Planning* 22
3.3.1 *Subscribers Density* 23

3.3.2 *Service and Trafik Model Parameter* 26
3.3.3 *Subscribers Data Volume in BH* 26
3.3.4 *Total Offered Traffic* 26
3.3.5 *Site Capacity* 26
3.3.6 *Capacity Sites* 26
3.4. *Coverage Planning* 30
3.4.1 Input Data 30
3.4.2 *Calculate UL/DL MAPL* 32
3.4.3 Calculate DL Cell Radius 37
3.4.4 *Calculate Site Coverage Area* 39
3.4.5 *Calculate Site Number* 39
BAB IV ANALISA HASIL PERENCANAAN 41
4.1 Deskripsi 41
4.2 Penentuan Letak Perangkat Aktif Dan Pasif 41
4.2.1 *Wiring Diagram* 42
4.3 IBC Planning Pada *Software* RPS 44
4.3.1 Analisa dan Hasil Simulasi 45
4.3.2 Rekapitulasi Hasil Perencanaan 48
BAB V PENUTUP 49
5.1 Kesimpulan 49
5.2 Saran 49
DAFTAR PUSTAKA 50