

## BAB V

### KESIMPULAN

Bedasarkan perhitungan dan pengukuran yang telah dilakukan untuk implementasi *bit rate* maksimum HSDPA (*High Speed Downlink Packet Access*), maka dapat ditarik kesimpulan sebagai berikut :

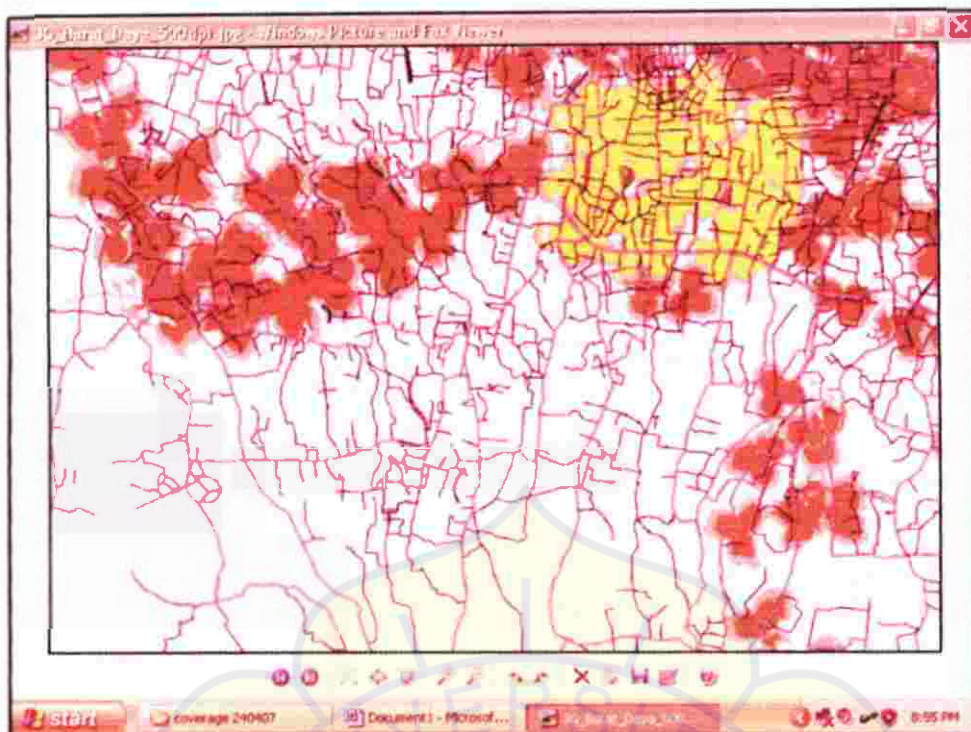
1. *Bit rate* maksimum *capability system* HSDPA yang digunakan di Gedung Wisma Mulia PT Telkomsel Jakarta adalah 4,096 Mbps.
2. Pada keadaan *locking Base Station*, *bit rate* maksimum HSDPA 4,46 kali lebih besar dibandingkan dengan keadaan *unlocking Base Station*.
3. *Bit rate data transfer* maksimum HSDPA yang dapat dicapai di lantai 8 Gedung Wisma Mulia PT Telkomsel Jakarta sebesar 3,41 Mbps, dalam hal ini memenuhi jangkauan (*range*) *bit rate data transfer* maksimum menurut analisa perhitungan yaitu antara 3,301 Mbps sampai dengan 3,629 Mbps.
4. *Bit rate* maksimum *data transfer* HSDPA hasil pengukuran di Gedung Wisma Mulia PT Telkomsel Jakarta termasuk dalam kategori antara 4 dan 5 tabel kategori *bit rate* HSDPA.

## DAFTAR PUSTAKA

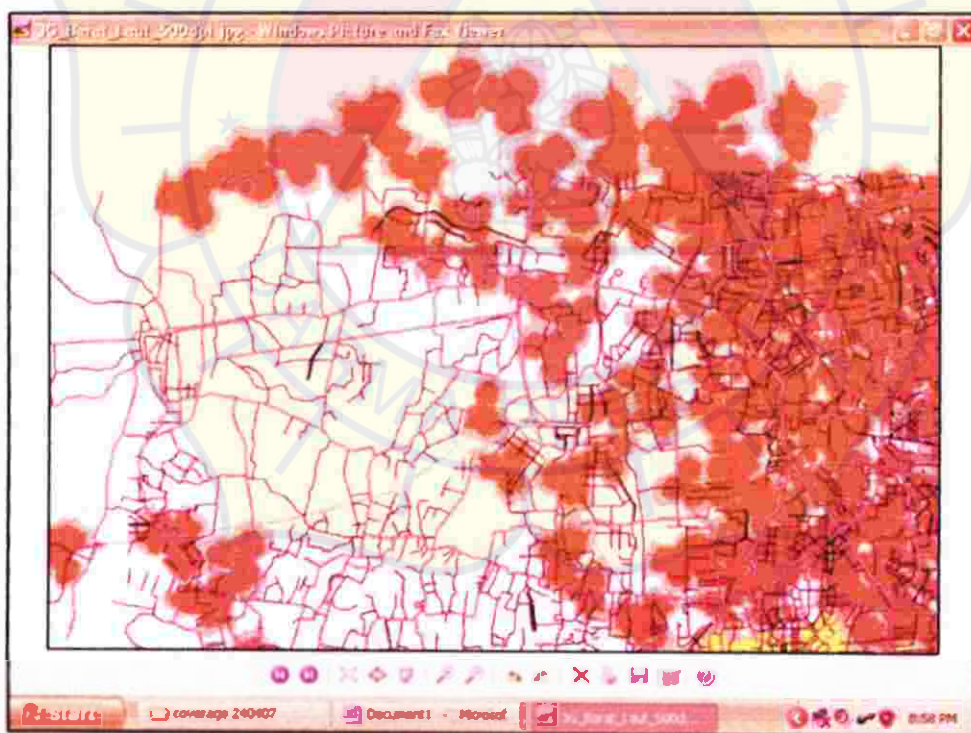
1. Sunomo, Drs., *Pengantar Sistem Komunikasi Nirkabel*. Grasindo, Jakarta. 2004.
2. Jose Luis Pradas Adán. *Effect of Multiple Simultaneous HSDPA Users on HSDPA End User Performance for Non-Real Time Services in One Cell System*, Department Electrical and Communication Engineering, Helsinki University Of Technology. 2006.
3. Seidel, Eiko. *Technology of High Speed Packet Acces (HSPA)*, München Germany. 2006.
4. ...., *HSDPA Mobile Broadband Data*, Agere System ; [www.agere.com](http://www.agere.com). Download tanggal 29 April 2007.
5. ...., *WCDMA Evolved, The First Step-HSDPA*, Ericsson. Download tanggal 29 April 2007.
6. Ptacin, Michal. *Operator And End User Performance*; [www.umtsworld.com](http://www.umtsworld.com), 2005. Download tanggal 29 April 2007.
7. Wahono, Tri, Yusep Rosmansyah. *Teknologi HSDPA Dalam Infrastruktur Telekomunikasi*. Departemen Teknik Elektro Institut Teknologi Bandung ; [www.itb.ac.id](http://www.itb.ac.id). Download tanggal 10 Juni 2007.
8. ...., *TELKOMSELFASH. High Speed Wireless Broadband*; [www.telkomsel.com](http://www.telkomsel.com)
9. ...., *HSDPA and Beyond* ; [www.nortel.com](http://www.nortel.com) . Download tanggal 30 Maret 2007.
10. Muhamad, Umar. *Asynchronous Transfer Mode (ATM), Suatu Evolusi Menuju Jaringan B-ISDN*. Disadur Dari : IEEE Comm. Magazine. August 1994.

- 11....., gambar 3GPP Release 4. [www.tektronix.co.jp](http://www.tektronix.co.jp). Download tanggal 8 Juli 2007.
- 12....., *HSDPA Network Configuration*. [www.samsung.com](http://www.samsung.com). Download tanggal 30 Maret 2007.
13. Anders Wännström, *High Speed Downlink Packet Access (HSDPA)*, Ericsson.2006.
14. Wolfgang, Franz *Nokia WCDMA RAN HW Solutions*. [www.nokia.com](http://www.nokia.com). 19 Oktober 2005.

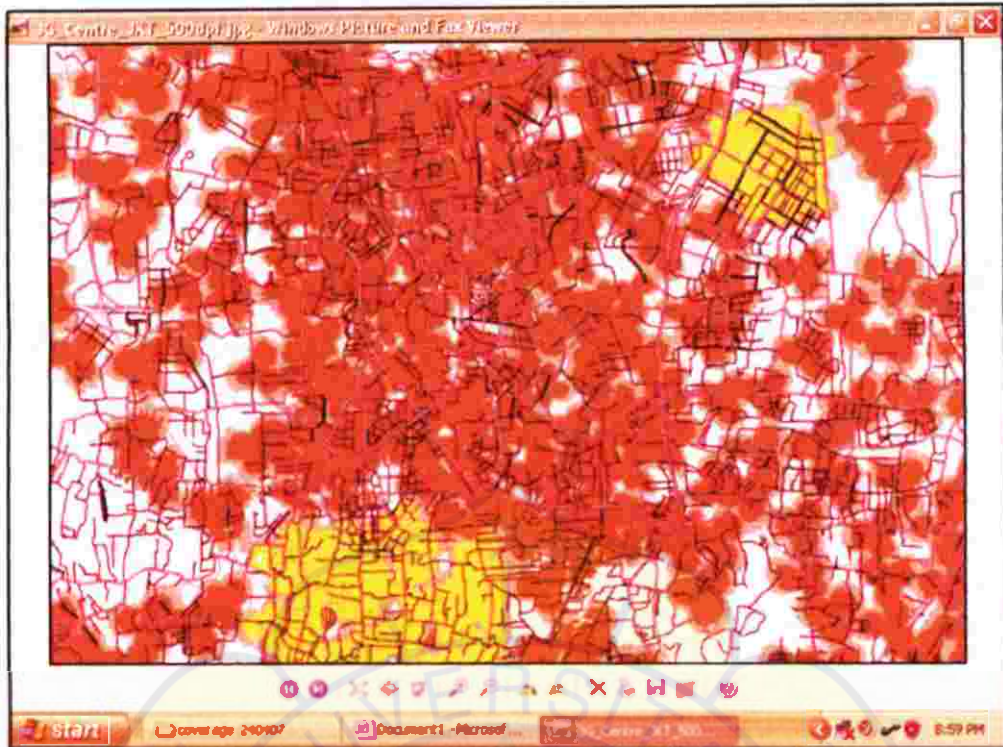




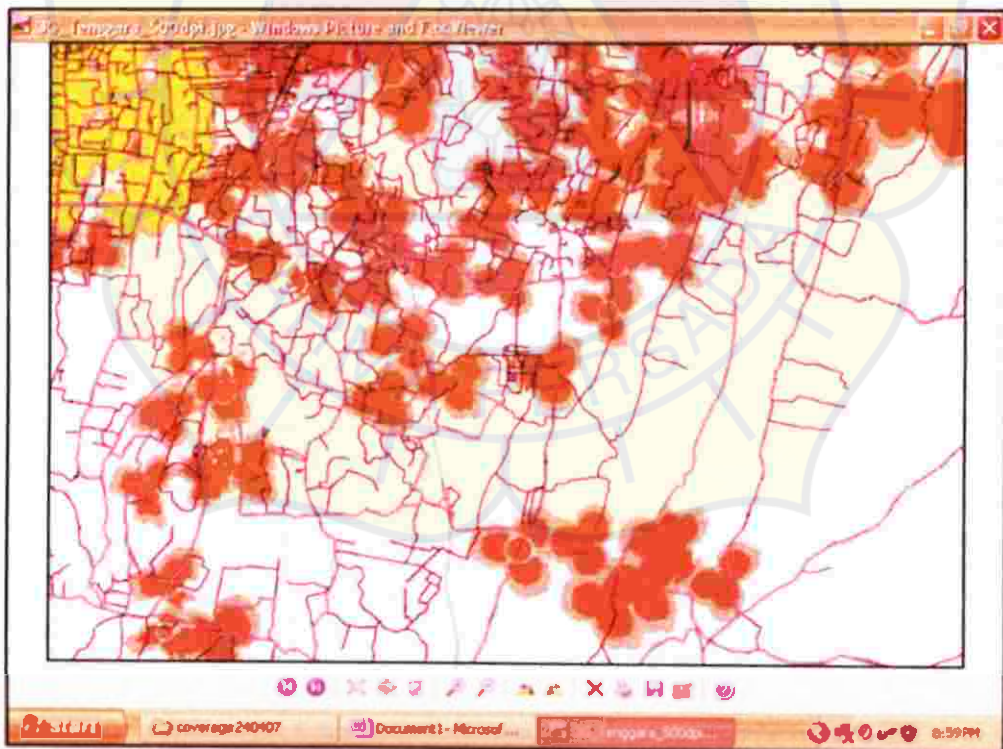
**Lampiran 1. Coverage HSDPA Jakarta Bagian Barat Daya**



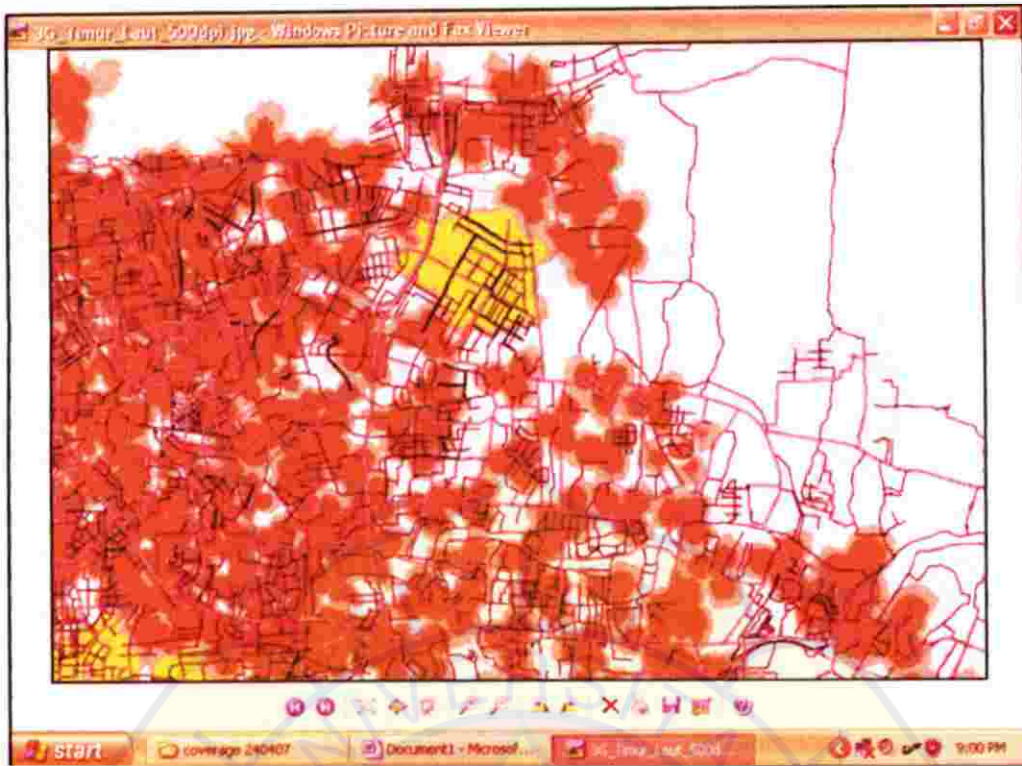
**Lampiran 2. Coverage HSDPA Jakarta Bagian Barat Laut**



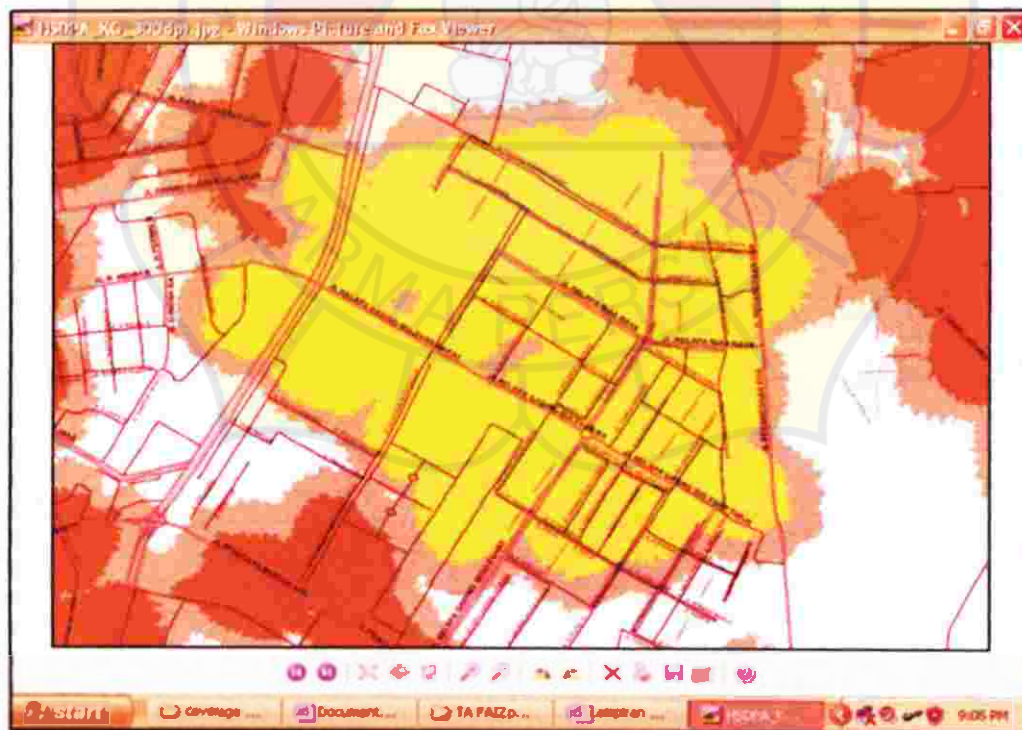
Lampiran 3. Coverage HSDPA Jakarta Bagian Pusat



Lampiran 4. Coverage HSDPA Jakarta Bagian Timur Tenggara



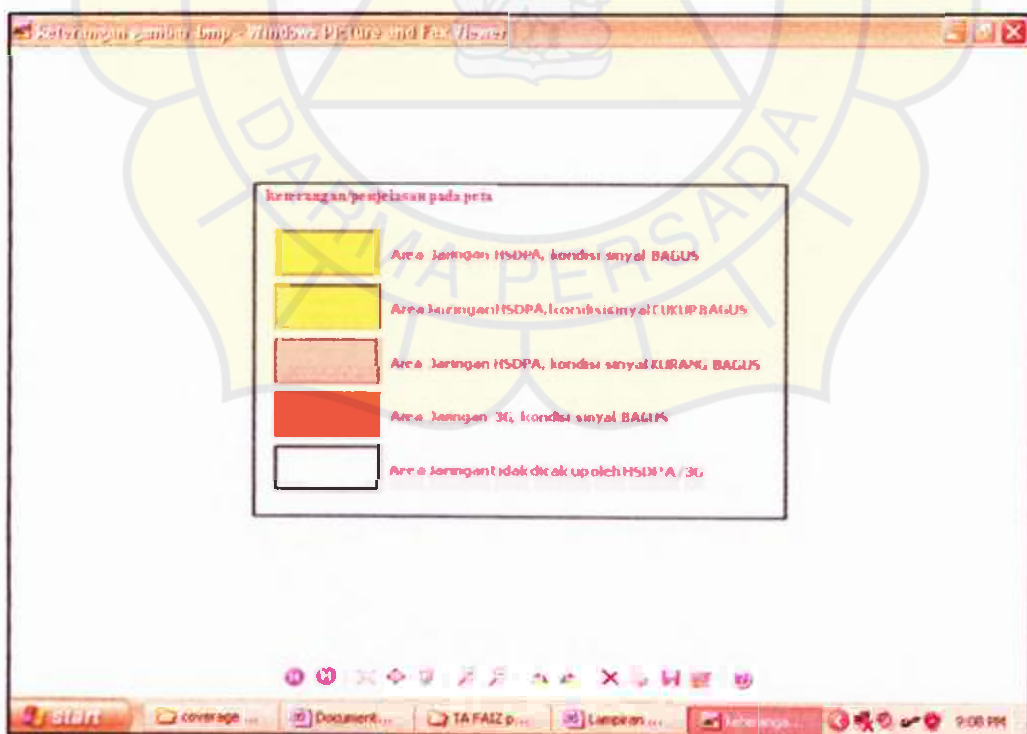
**Lampiran 5. Coverage HSDPA Jakarta Bagian Timur Laut**



**Lampiran 6. Coverage HSDPA Kelapa Gading Jakarta**



**Lampiran 7. Coverage HSDPA Pondok Indah Jakarta**





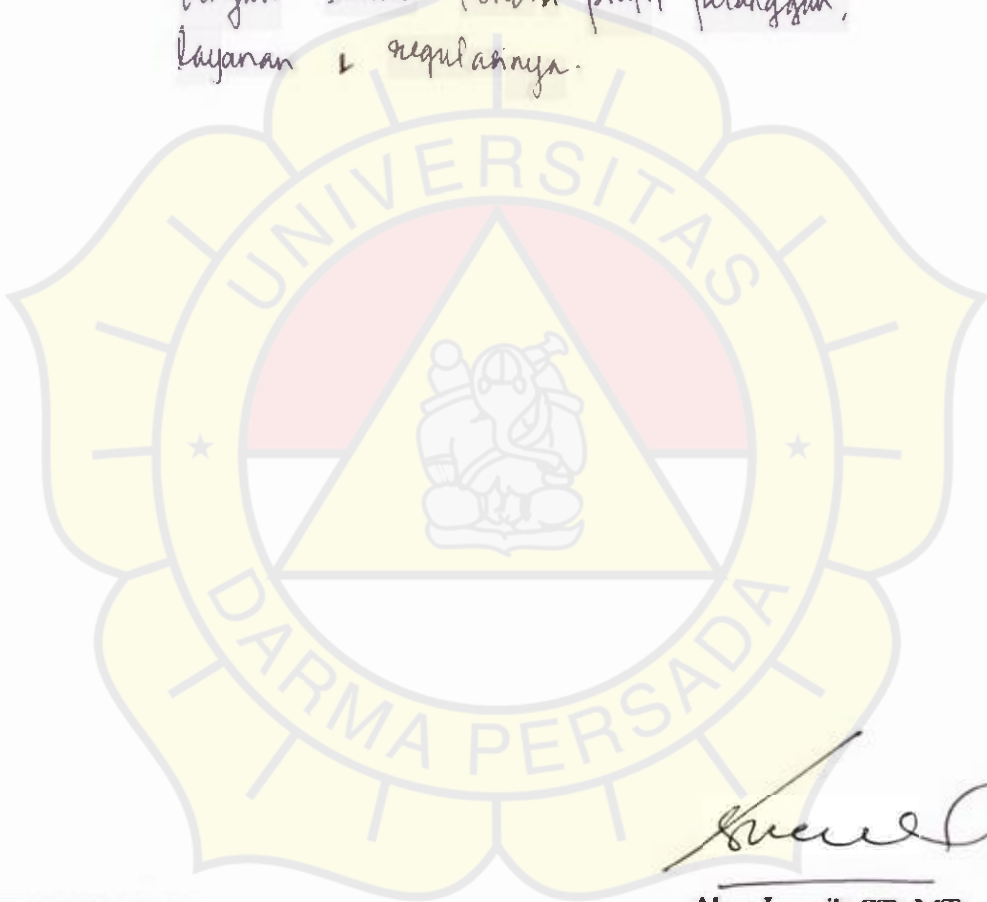


**KETERANGAN ALOKASI CE (CHANNEL ELEMENT) UNTUK SIGNALING**

Menerangkan bahwa :

PT Telkomsel Jakarta mengalokasikan 2 sampai 10% dari total CE (*channel element*)

untuk *signaling*. → hanya berdasarkan kondisi lapangan  
di Jakarta pada periode 2006-2007  
dengan semua kondisi profil pelanggan,  
layanan & regulasinya.



**Alvo Ismail, ST, MT.**  
Pembimbing Lapangan



# Nokia UltraSite WCDMA BTS Supreme

## Configurations

- up to 12 carriers in one cabinet
- ROC and Omni- configurations (20/40W)
- 1+1+1...2+2+2...1+1+1+1+1+1
- 4+4+4 ... 2+2+2+2+2+2

## Processing capacity max.

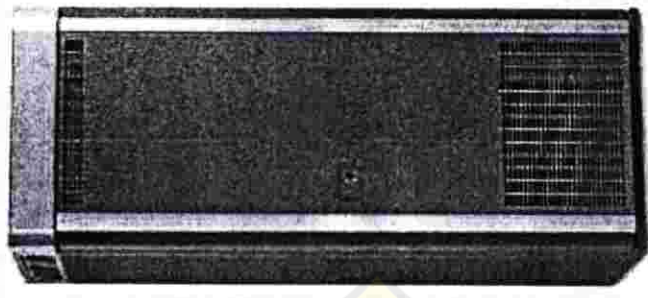
- 18 Signal Processors Units (WSP)
- 1152 HW channels

## Power Consumption

- typical 1.3 kW for 1+1+1 20W 128ch (Indoor)

## Other features

- 2-port uplink diversity as standard
- Support for AIR and RealTilt
- 30 or 50 W power amplifier
- AC or DC power feed



## Indoor

- 1800 x 600 x 600 mm
- -5°C ... +50 °C
- IP20 for BTS electronics



## Outdoor

- 1940 x 770 x 790 mm
- -33°C ... +50 °C
- IP55 for BTS electronics

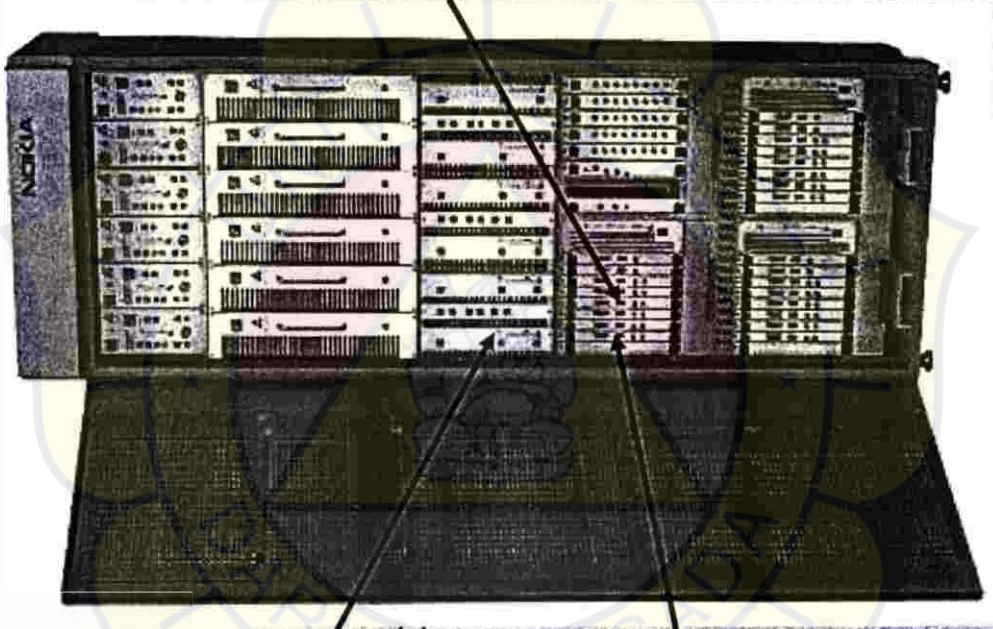
# High Capacity (Rel. 2) HW Units in Nokia UltraSite WCDMA BTS Supreme

## Transmitter and Receiver unit (WTRB)

- Max 6 WTR units
- Max 12 carriers
- Rel1 and Rel2 WTRs can co-exist in cabinet

## Summing and Multiplexing (WSMB)

- Max 3 units
- to be used with WTRB



## Signal Processor (WSPC)

- Max 18 units
- Max 1152 channels
- Rel1 and Rel2 WSPs can co-exist in cabinet

**NOKIA**