Alcatel-Lucent 9224 Base Station Sub-Compact (formerly CDMA Base Station 4400)

AN ULTRA-COMPACT PLATFORM SUPPORTING ADVANCED 3G SERVICES — ECONOMICALLY

The Alcatel-Lucent 9224 Base Station Sub-Compact is an ultra-compact, scalable base station that provides an effective way to drive down operational and capital expenditures, while delivering next-generation capabilities. Designed for economical 3G deployments requiring low to medium carrier density, the 9224 Base Station Sub-Compact allows high quality voice and data coverage, and enables advanced CDMA services such as high speed mobile data, voice over IP, and future IMS-based revenue-generating applications.

9224 Base Station Sub-Compact indoor (with optional cover)

9224 Sub-Compact with Auxiliary Shelf

Features

- Indoor and outdoor configurations
- 1 to 6 carriers and 1 to 3 sectors in one primary cabinet; supports up to 7 carriers 3 sectors in the same footprint with the Auxiliary Shelf[1]
- Close Loop Gain Control (with MCR)
- High Power Transmit and TTLNA features (double the output power)
- Supports CDMA2000® 1x, EV-DO Rev. 0, and Rev. A
- Flexible backhaul options: frame relay, IP backhaul, and Ethernet backhaul (planned)

Benefits

- The new high efficiency amplifier (60WCPAM) reduces power consumption by almost 60 percent compared to the previous generation of amplifier (C2PAM), and increases the capacity supported on the same cabinet up to 50 percent
- Shares common assets of other Alcatel-Lucent CDMA base stations, reducing CAPEX and OPEX
- Expanded revenue opportunities with next-generation voice and data services
- Cost-effective upgrades to network performance and coverage
- Easy installation due to small size, light weight, and front access

[1] Auxiliary Shelf available on Indoor cabinet only

Technical specifications

Standards
- Global ITU Standard Compliant

Configurations
- Sectors: 1 to 3
- Carriers: 1 to 6
- Indoor: frameless design with add-on Auxiliary Shelf that provides up to 7 carriers 3 sectors support on the existing single footprint
- Outdoor: Fresh Air Cooling Cabinet

CDMA channel card capacity
- 4 slots for channel card, EVM
- Compatible with CMU IV, and CMU V

Backhaul
- IP over T1/E1
- Frame relay over T1/E1 Ethernet backhaul (planned)

Frequency bands
- 850 MHz: International Cellular Frequency Bands (A and B).

Software upgradeable features
- Software upgradeable Carriers
- Software upgradeable channel elements, with select CMUs

T1, E1 facilities
- Maximum of 12 per cabinet

Max channel elements
- 1024

User alarms
- Up to 22 alarms

GPS antenna
- Yes

Air interface standards
- TIA/EIA 95-A plus TSB-74
- TIA/EIA 95-B for 850 MHz;
- CDMA 2000

Vocoder
- 8 kb/s
- 8 kb/s EVRC
- 13 kb/s

Environmental cabinet housing
- Resides within ETSI Footprint

Cabinet access
- Front Access

Operating temperature range
- Indoor Range: -5°C to +40°C
- Outdoor Range: -5°C to +46°C (Standard); -40°C to +46°C (with optional heater); 52°C max offered for some configurations

Dimensions
Indoor
- Height: 875 mm (34.4 in.)
- Width: 595 mm (23.4 in.)
- Depth: 530 mm (20.9 in.)

Indoor Cabinet with Aux Shelf
- Height: 1480 mm (58.3 in.)
- Width: 595 mm (23.4 in.)
- Depth: 530 mm (20.9 in.)

Outdoor
- Height: 1100 mm (43.3 in.)
- Width: 726 mm (28.6 in.)
- Depth: 815 mm (32.1 in.)

Estimated installed weight
- Indoor: 123Kg (270lbs)
- Indoor with Auxiliary Shelf: 210Kg (461lbs)
- Outdoor: 212 kg (467 lbs) "DC only" fully loaded frame

Power options
- -48 VDC

Power consumption (OPEX value[2])
- 3 Carriers/3 Sectors – 990W
- 7 Carriers/3 Sectors – 2040W

RF power (at EAC)
- Up to 20W at 850MHz long-term average; 25W at 850MHz short-term average
- With High Power Transmit feature (2 carriers/3 sectors max): 40W at 850MHz long-term average; 50W @ 850MHz short-term average

Minimal antenna configuration
- 2 antennas/sector

Antenna testing
- Optional (MCR and TTSM required)

Closed loop gain control (CLGC)
- Optional (MCR required)

Filters
- Dual duplex
- Passive

Protective cover for indoor product
- Optional

Alcatel-Lucent has changed the product names within the CDMA portfolio. The product previously known as the Alcatel-Lucent CDMA Base Station 4400 has been renamed and is now referred to as the Alcatel-Lucent 9224 Base Station Sub-Compact. The use of any of these names in this document refers to the same product and functionality.

[2] OPEX Power Consumption: The Operational Expense (OPEX) value is suitable for estimating utility costs. All configurations listed here are standard RF power.

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