NOKIA

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Nokia UltraSite EDGE BTS, Rel. CX5, Product Documentation, v.1

UltraSite EDGE BTS Glossary

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1 Glossary

1.1 Numbers

2-way uplink diversity

See two-way uplink diversity

2-way wideband combining

See two-way wideband combining

4 UD

See four-way uplink diversity

4-branch UL diversity

See four-way uplink diversity

4-way uplink diversity

See four-way uplink diversity

4-way uplink diversity reception

See four-way uplink diversity

4-way wideband combining

See four-way wideband combining

1.2 A

A/D

analogue-digital

A/D converter

See analogue-to-digital converter

Abis

See Abis interface

Abis interface; *Abis*

base station controller (BSC) to base transceiver station (BTS) interface

absolute radio frequency channel number

See absolute radio frequency number

absolute radio frequency number; *absolute radio frequency channel number*; *ARFN*; *ARFCN*

radio frequency used in connection with, for example, mobile originating and terminating test calls

AC

See alternating current

AC/DC converter

See rectifier

ACFU

AC Filter Unit

adaptive multi-rate speech codec

See AMR speech codec

adaptive multirate codec

See AMR speech codec

ADC

See analogue-to-digital converter

add-drop multiplexer; *add-drop node*; *ADM*

multiplexer for inserting signals in and/or extracting them from an STM-N frame

add-drop node

See add-drop multiplexer

ADM

See add-drop multiplexer

AFC

See automatic frequency control

AGC

See automatic gain control

AI

See radio interface

air interface

See radio interface

ALA

See link adaptation

alarm

announcement that is given to the management system about abnormal functioning of the system or about a failure, or an indication of the degradation of the service level or reliability

alarm category; *alarm class*

classification of alarms that consists of an alarm urgency level and alarm type

There are five types of alarm classes in the Nokia OMC: critical, major, minor, warning, and notice.

alarm class

See alarm category

alarm status

attribute that describes the current status of a managed object as a result of one or more alarm events

ALS

See automatic laser shutdown

alternating current; *AC*

periodic current having a mean value zero

American National Standards Institute; *ANSI*

national standardization organization of the United States

American wire gauge; *AWG*

standard classification for measuring non-ferrous wire conductor sizes

amplification

See gain

AMR

See AMR speech codec

AMR codec

See AMR speech codec

AMR speech codec; *AMR codec*; *adaptive multi-rate speech codec*

speech codec which adapts its operation optimally according to the prevailing channel conditions

analog-to-digital converter /US/

See analogue-to-digital converter

analogue-to-digital converter; *analog-to-digital converter /US/*; *A/D converter*; *ADC*

device which converts an analogue input signal to a digital output signal carrying equivalent information

ANE list

See authorised networks list

ANSI

See American National Standards Institute

ANT

antenna connector

application-specific integrated circuit; *custom circuit*; *custom IC*; *ASIC*

integrated circuit which is designed for a specific application and a specific customer and which is not available to other customers

ARFCN

See absolute radio frequency number

ARFN

See absolute radio frequency number

ARQ

See automatic repeat request

ASIC

See application-specific integrated circuit

asynchronous transfer mode; *ATM*

transfer mode in which the information is organised into cells: it is asynchronous in the sense that the recurrence of cells containing information from an individual user is not necessarily periodic

ATCA

Antenna Cable Kit

ATM

See asynchronous transfer mode

ATM connection control; *connection control*; *CC*

function that keeps track of connection resources and based on those handles the operations related to different kinds of cross-connections

ATM cross connect

See ATM cross-connect

ATM cross-connect; *ATM cross connect*; *AXC node*; *AXC*

transmission node that provides semi-permanent virtual path connections (VPC) and semi-permanent virtual channel connections (VCC) according to an alterable memory map

ATM cross-connect unit; *AXU*

master unit of the ATM cross-connect (AXC) that performs the main ATM function of communicating with the base transceiver station (BTS), connects to other BTSs and to the radio network controller (RNC), and controls he Nokia AXC node

ATM inverse multiplexing

See inverse multiplexing for ATM

authorised networks list; *ANE list*

list that contains a set of public land mobile network (PLMN) identifiers that are used to select the permitted cells from all the adjacent cells of a serving cell

automatic frequency control; *AFC*

process of maintaining the frequency of an oscillator within the specified limits with respect to a reference frequency

automatic gain control; *AGC*

electronic circuit in tape recorders, speakerphones, and other voice devices which is used to maintain volume

automatic laser shutdown; *ALS*

function of an optical line system, which automatically switches off the transmitter of a regenerator section in case of a cable break in this section

automatic link adaptation

See link adaptation

automatic repeat request; *automatic request for repetition*; *automatic retransmission request*; *automatic request for retransmission*; *ARQ*

procedure that allows the receiving device to detect errors and request retransmissions

automatic request for repetition

See automatic repeat request

automatic request for retransmission

See automatic repeat request

automatic retransmission request

See automatic repeat request

AWG

See American wire gauge

AXC

See ATM cross-connect

AXC node

See ATM cross-connect

AXU

See ATM cross-connect unit

1.3 B

backpanel

See backplane

backplane; *backpanel*

printed circuit board of a subrack or cartridge, where the plug-in units are connected

BAPT

Bundesamt für Post und Telekommunikation; Telecommunications advisory agency of Federal Republic of Germany.

base control function; *base station control function*; *BCF*

functional entity in a base transceiver station, which handles common control functions and the base transceiver station operation and maintenance functions

base station

See base transceiver station

base station control function

See base control function

base station controller; *BSC*

network element in the public land mobile network (PLMN) for controlling one or more base transceiver stations (BTS) in the call set-up functions, in signalling, in the use of radio channels, and in various maintenance tasks

base station subsystem; *BSS*

system consisting of several base stations (BS) and one base station controller (BSC), representing the radio network in a specific geographical area

base station system; *BSS*

system of base stations (BS) and base station controllers (BSC) which is viewed by the mobile services switching centre (MSC) through a single interface

base transceiver station; *base station*; *BTS*; *BS*

network element in a mobile network responsible for radio transmission and reception to or from the mobile station

baseband hopping; *BB hopping*

frequency hopping in which a transceiver transmits on a certain frequency which is changed between consecutive bursts

BATA backplane

additional backplane that is required in a site-support cabinet when using 12 rectifiers

BB2x

Transceiver Baseband Unit

BB2A is a Transceiver Baseband Unit for GSM, BB2E for GSM/EDGE, and BB2F for GSM and GSM/EDGE.

BB hopping

See baseband hopping

BCCH

See broadcast control channel

BCF

See base control function

BEP

See bit error probability

BER

See bit error ratio

bias tee; *bias-tee*; *bias-T*; *BTU*

unit that provides power to the masthead amplifier (MHA) and further can provide fault monitoring of the antenna line voltage standing-wave ratio (VSWR) and masthead amplifier

bias-T

See bias tee

bias-tee

See bias tee

BIST

See built-in self-test

BIT

See built-in self-test

bit error probability; *BEP*

probability that a received bit is inverted with respect to the corresponding bit sent

bit error rate

See bit error ratio

bit error ratio; *BER*

ratio of the number of bit errors to the total number of bits transmitted in a given time interval

BOIx

Base Operations and Interfaces Unit

BPxN

Bias Tee without VSWR monitoring

BPDN is for GSM 900/1800/1900, BPGV for GSM 900, BPDV for GSM 1800/1900, and BPxV is a Bias Tee with VSWR monitoring.

broadcast control channel; *BCCH*

channel from a base transceiver station to a mobile station used for transmission of messages to all mobile stations located in the base transceiver station area

BS

See base transceiver station

BS

British Standards

BSC

See base station controller

BSS

See base station system

BSS

See base station subsystem

BTS

See base transceiver station

BTS fault recovery; *BTS recovery*

part of radio network maintenance in base station controller (BSC) which minimises the effect of faults in the radio network on the service level provided by the base station system (BSS) and which controls initialisations when there are resets and restarts in the BSS radio network

BTS local blocking

feature that is used to block the base transceiver station with the BTS manager locally to enable different operations, such as service operations

BTS recovery

See BTS fault recovery

BTU

See bias tee

build

See software build

built-in self test

See built-in self-test

built-in self-test; *built-in self test*; *built-in test*; *BIST*; *BIT*

technique that provides a circuit the capability to carry out an implicit test of itself

built-in test

See built-in self-test

1.4 C

cabinet control unit; *CCU*

module of the AC/DC unit that manages battery control, climatic control, alarm reporting, and serial and version number reporting for Nokia UltraSite Support cabinet

The cabinet control unit is used in the AC/DC units of integrated battery backup (ADUA) and site support system (ADUB). The cabinet control unit connects to the base operations and interfaces unit with the Q1 bus.

card

See printed board

carrier /US/

See network operator

CBS

See short message service cell broadcast

CC

See ATM connection control

CC

See cross-connection

CCCH

See common control channel

CCITT

See ITU Telecommunication Standardization Sector

CCU

See cabinet control unit

CCUA

Cabinet Control Unit

CDMA

See code division multiple access

CE

cable entry

CE

consumer electronics

CE

Conformit Européen (European Conformity)

cell; *cell coverage area*

combined coverage area of all transceivers that belong to the same base transceiver station

cell breathing

variation of the size of the cell coverage area according to interference and the resulting power demand on mobile stations

cell broadcast service

See short message service cell broadcast

cell broadcast short message service

See short message service cell broadcast

cell capacity

number of active users that one cell can handle at a time

cell coverage area

See cell

cellular network; *cellular radio network*; *radio cellular network*

mobile network whose whole working range is covered by using contiguous cells of a number of base transceiver stations

cellular radio network

See cellular network

CENELEC

Comité Européen de Normalisation Electrotechnique; European Committee for Electrotechnical Standardization

CEPT1

See E1

CH

See transmission channel

chain topology

network topology in which the network elements are linked one after the other

change note; *CN*

short trouble management document in a standard form that is sent to a customer about a modification in a product

channel

See transmission channel

channel coder digital signal processor; *CHDSP*

digital signal processor that performs frequency hopping calculations and controls the radio receiver and radio transmitter burst switching between transceivers

channel unit

See interface unit

CHDSP

See channel coder digital signal processor

chip

equal length signal segment

chip rate

number of chips transmitted in one second

CN

See change note

code converter

See transcoder

code division multiple access; *CDMA*

technique in which radio transmissions using the same frequency band are coded in a way that a signal from a certain transmitter can be received only by certain receivers

coding scheme

See modulation and coding scheme

commissioning

process of bringing software or hardware into use for the first time

Commissioining means the tasks performed to make a network element or other equipment functional in the network. It includes, for example, operational tests and configuring of the transmission equipment.

common control channel; *CCCH*

point-to-multipoint bidirectional control channel primarily intended to carry signalling information necessary for access management functions, that is, allocation of dedicated channels

connection control

See ATM connection control

coverage area; *network coverage*; *coverage area of a mobile cellular system*; *coverage service area*

area that is effectively served by a given radio transmitter

coverage area of a mobile cellular system

See coverage area

coverage service area

See coverage area

CRC

See cyclic redundancy check

CRMx

Core Mechanics for Nokia UltraSite EDGE Base Station Indoor and Outdoor cabinet

CRMA is for Outdoor cabinet, CRMB for Site Support cabinets, and CRMC for Midi Indoor and Outdoor cabinets.

cross-connection; *CC*

fixed or flexible connection between two termination points with the same data rate

For example, between input port(s) and output port(s) in a network element.

cross-connection bank

See cross-connection table

cross-connection table; *cross-connection bank*

information base which defines the cross-connections of a network element

The term cross-connection bank is used in radio communication. A network element contains two or more banks, of which one is always active.

cross-polarised antenna; *X-polarised antenna*

antenna that allows diversity to be implemented in the same antenna by placing the main and diversity dipoles at a 45 degree angle to each other

CSC

See customer service centre

custom circuit

See application-specific integrated circuit

custom IC

See application-specific integrated circuit

customer service center /US/

See customer service centre

customer service centre; *customer service center /US/*; *CSC*

service point which provides information about the use of products

cyclic redundancy check; *CRC*

method for detecting errors in the transmission of data using a polynomial code and cyclic check character

1.5 D

D-bus

bus of a base transceiver station that is used for serial data transmission and the transfer of calls and control signals related to the calls

D/A

digital-analogue

DC

See direct current

DCS

See digital cellular system

DDS

See direct digital synthesis

despreading

process in which the received wideband signal is modulated with the synchronised spreading code to get a narrowband signal in spread spectrum systems

DFCA

See dynamic frequency and channel allocation

digital cellular system; *DCS*; *GSM/DCS*

digital communication standard for mobile communications and digital mobile telephone transmissions based on GSM technology, which uses a higher radio frequency than those originally used by GSM networks, increases network capacity and reduces system congestion

digital microwave radio; *microwave radio*; *DMR*; *MWR*

radio link that is used for transmission inside a base station system

digital signal processor; *DSP*

processor designed for digital signal handling, resembling an ordinary microprocessor

DIL

See dual-in-line package

DIL package

See dual-in-line package

DIP

See dual-in-line package

direct current; *DC*

current that is independent of time

direct digital synthesis; *direct-digital frequency synthesis*; *DDS*

frequency synthesis in which logic and memory are used to digitally construct the desired output signal, and a digital-to-analogue converter is used

direct-digital frequency synthesis

See direct digital synthesis

discontinuous reception; *DRX*

means of saving battery power (for example in hand-portable units) by periodically and automatically switching the mobile station receiver on and off

discontinuous transmission; *DTX*

feature which enables saving battery power (for example in hand-portable units) and reducing interference by automatically switching the transmitter off when no speech or data are to be sent

DL

See downlink

DMR

See digital microwave radio

downlink; *forward link*; *DL*

physical link from the transmitting base transceiver station (BTS) towards the receiving mobile station (MS)

downlink diversity

See frequency hopping.

DRAM

See dynamic RAM

DRX

See discontinuous reception

DSP

See digital signal processor

DTX

See discontinuous transmission

DU2A

Dual Band Diplex Filter unit for GSM 800/900 and 1800/1900

dual-in-line package; *DIL package*; *DIL*; *DIP*

integrated-circuit package in which two lines of equally-spaced leads are arranged on opposite edges of the package, the leads being bent downwards to facilitate their entry into holes in a printed circuit board and package body occurs

DVxx

Dual Variable Gain Duplex Filter unit

DVTB and DVTD are for GSM/EDGE 800, DVGE is for GSM/EDGE 900, DVHA for GSM/EDGE 900 customer-specific H band, DVJA for GSM/EDGE 900 customer-specific J band, DVDC for GSM/EDGE 1800, DVDA for GSM/EDGE 1800 A band, DVDB for GSM/EDGE 1800 B band, and DVPA for GSM/EDGE 1900.

dynamic Abis allocation

function that allocates Abis transmission capacity to cells when needed, instead of reserving a full fixed transmission link for each transceiver

dynamic frequency and channel allocation; *dynamic frequency and channel assignment*; *DFCA*

function that provides a desirable carrier-to-interference ratio (CIR) for every connection by assigning the radio channel dynamically based on downlink measurement reports, cell-level CIR statistics, and the knowledge of the used radio channels in the surrounding cells

dynamic frequency and channel assignment

See dynamic frequency and channel allocation

dynamic RAM; *dynamic random access memory*; *DRAM*

random access memory that stores information in capacitors that must be periodically refreshed

dynamic random access memory

See dynamic RAM

1.6 E

E 1

See E1

E-AFC

See enhanced automatic frequency correction

E-DDAFC

See enhanced automatic frequency correction

E1; *E1 system*; *European Digital Signal 1*; *CEPT1*

European PCM system that carries 32 channels in a 256-bit frame transmitted at 2.048 Mbit/s basic multiplex rate

E1 system

See E1

E2PROM

See electrically erasable programmable read-only memory

EAC

See external alarm connection

earth /GB/; *ground /US/*; *GND*

conductive mass of the earth, whose electric potential at any point is conventionally taken as zero

earthing /GB/; *grounding /US/*

electrical connection between a given point in the equipment and the earth

Earthing protects the equipment and the users against, for example, lightning and surges.

EC

European Community

EDGE; *enhanced data rates for global evolution*; *enhanced data rates for GSM evolution*

radio interface modulation technique that increases HSCSD (high-speed circuit-switched data) and GPRS (general packet radio service) data rates

EEC

European Economic Community

EEPROM

See electrically erasable programmable read-only memory

EFR

See enhanced full rate speech codec

EGPRS

See enhanced GPRS

electrically erasable programmable read-only memory; *electrically erasable programmable ROM*; *E2PROM*; *EEPROM*

In the word E2PROM, the figure 2 is exponent for the letter e. E2PROM can be erased one byte at a time.

electrically erasable programmable ROM

See electrically erasable programmable read-only memory

electromagnetic compatibility; *EMC*

ability of equipment or a system to function satisfactorily in its electromagnetic environment without introducing intolerable electromagnetic disturbances to anything in that environment

electromagnetic interference; *EMI*

degradation of the performance of equipment, a transmission channel, or system caused by electromagnetic disturbance

electromagnetic pulse; *EMP*

pulse caused by a broadband, high-intensity, short-duration burst of electromagnetic energy

electrostatic discharge; *ESD*

transfer of electric charge between bodies of different electrostatic potential in proximity or through direct contact

EMC

See electromagnetic compatibility

EMI

See electromagnetic interference

EMP

See electromagnetic pulse

EMR

See enhanced measurement report

EMR report

See enhanced measurement report

EMR reporting

See enhanced measurement report

EN

European Norm

enhanced automatic frequency correction; *enhanced decision-directed AFC*; *E-AFC*; *E-DDAFC*

feature that improves the EDGE receiver algorithm to support fast-moving users of speech and data services that are based on Gaussian minimum shift keying

enhanced data rates for global evolution

See EDGE

enhanced data rates for GSM evolution

See EDGE

enhanced decision-directed AFC

See enhanced automatic frequency correction

enhanced full rate codec

See enhanced full rate speech codec

enhanced full rate speech codec; *enhanced full rate codec*; *EFR*

codec providing good speech quality to the end user by selecting correct resources, based on the information received from the mobile station (MS), and relaying the information to the base station system (BSS)

enhanced general packet radio service

See enhanced GPRS

enhanced GPRS; *enhanced general packet radio service*; *EGPRS*

general packet radio service (GPRS) whose data rate is increased up to threefold with enhanced data rates for global evolution (EDGE) modulation

enhanced measurement report; *EMR*

measurement report that the mobile terminal provides to the system and that includes enhanced measurements about the serving and adjacent cells

EQDSP

See equaliser digital signal processor

equaliser digital signal processor; *equalizer digital signal processor /US/*; *EQDSP*

digital signal processor that takes care of bit detection and equalizing of reception functions

equalizer digital signal processor /US/

See equaliser digital signal processor

equipment earth /GB/

See protective earthing /GB/

equipment ground /US/

See protective earthing /GB/

ESD

See electrostatic discharge

ET

See Exchange Terminal

ETSI

See European Telecommunications Standards Institute

European Digital Signal 1

See E1

European Telecommunications Standards Institute; *ETSI*

European standards organisation that produces European standards which are applied and accepted in the area of telecommunications

Exchange Terminal; *ET*

The exchange termination of the DX 200 system.

Ext.

external

extended cell

handover feature in which a call is handed over from an outer cell to an inner cell

external alarm connection; *external alarms and controls*; *external alarm control*; *EAC*

The base transceiver station has a Q1 control bus interface for Nokia Radio Relay DMR18-38S; external alarms connection lines can be used for controlling other types of radio relays.

external alarm control

See external alarm connection

external alarms and controls

See external alarm connection

1.7 F

FACCH

See fast associated control channel

FACCH call set-up; *FACCH call set-up procedure*

call set-up in which the mobile terminal is assigned from the common control channel (CCCH) to the traffic channel (TCH) with the immediate assignment procedure,and the fast associated control channel (FACCH) is used for call set-up signalling

FACCH call set-up procedure

See FACCH call set-up

FACH

See forward access channel

fast ACCH

See fast associated control channel

fast associated control channel; *fast ACCH*; *FACCH*

associated control channel that is available for control signalling when the uplink or downlink of the assigned channel is not in use for traffic

FB

See Flexbus interface

FB interface

See Flexbus interface

F-bus

Frequency Hopping bus. See frequency hopping.

FCC

See Federal Communications Commission

FC E1/T1

Wireline transmission unit (75 Ω E1, 120 Ω E1, or 100 Ω T1) of Nokia UltraSite EDGE Base Station without cross-connection capability.

FCLK

See frame clock

FEC

See forward error correction

Federal Communications Commission; *FCC*

US government agency in charge of regulating interstate and international communications by radio, television, wire, satellite, and cable

FEPROM

See flash memory

FER

See frame error rate

FER

See frame erasure rate

FET

See field-effect transistor

FH

See frequency hopping

FHS

frequency hopping synthesiser

field programmable gate array; *FPGA*

programmable logic device (PLD) containing logic cells or gates that are interconnected through signal channels by programmable switches for which the logic function is defined after manufacturing

field-effect transistor; *unipolar transistor*; *FET*

voltage-controlled semiconductor which has a high input impedance comparable to that of a vacuum tube

FIFP

forwarded intermediate frequency power

FIKA

+24 VDC Installation Kit

finger; *rake finger*; *RAKE finger*

receiver unit that despreads one multipath signal

flash erasable programmable read-only memory

See flash memory

flash memory; *flash erasable programmable read-only memory*; *FEPROM*

non-volatile memory that can be electrically erased in the circuit and reprogrammed, and that allows blocks of data to be stored, booted, and rewritten as necessary

Flexbus

See Flexbus interface

Flexbus interface; *FB interface*; *Flexbus*; *FB*

proprietary coaxial interface that carries 16 x 2 Mbit/s signals and power feeding towards a microwave radio outdoor unit

forward access channel; *FACH*

downlink transport channel that mobile terminals use to receive control information and packet data

forward error correction; *FEC*

technique allowing the receiver to correct errors occurring on a transmission channel without requiring retransmission of the data

forward link

See downlink

four-way uplink diversity; *4-way uplink diversity*

function by which a base transceiver station (BTS) uses four antennas and four receivers simultaneously on a single channel to obtain improved overall BTS receiver sensitivity in an environment that is subject to random multipath fading

four-way wideband combining; *4-way wideband combining*

signal-combining technique in which transmitter signals are combined into one antenna using two parallel wideband combiners in a series with a single wideband combiner

FPGA

See field programmable gate array

frame clock; *FCLK*

Frame clock provides the clock signal for the radio interface radio frame. The period is 10 ms.

frame erasure rate; *FER*

ratio of the total number of speech frames to the number of erased speech frames

frame error rate; *FER*

ratio of the number of errored frames to the total number of frames transmitted in a given time interval

freeform radio frequency hopping; *freeform RF hopping*

radio frequency hopping that introduces more efficient hopping through synchronised cells, reused mobile allocations (MA), and specially organised mobile allocation index offsets (MAIO)

freeform RF hopping

See freeform radio frequency hopping

frequency hopping; *FH*

technique in which the instantaneous carrier frequency of a signal is, according to a predetermined code, periodically changed to other positions within a frequency spectrum that is much wider than that required for normal transmission

frequency-change oscillator

See local oscillator

FXC E1

Wireline transmission unit (75 Ω E1) with four line interfaces to the 2 Mbit/s (E1) transmission line; cross-connection capability at 8 kbit/s level.

FXC E1/T1

Wireline transmission unit (120 Ω E1 or 100 Ω T1) with four line interfaces to the 2 Mbit/s (E1) or 1.5 Mbit/s (T1) transmission line; cross-connection capability at 8 kbit/s level.

FXC RRI

Radio link transmission unit (radio indoor unit) with cross-connection capability at 8 kbit/s level.

FXC RRI is used with MetroHopper Radio and FlexiHopper Microwave Radio.

FXC STM-1/STM Bridge

Transmission units that enable cross-connections between PDH and SDH transmission rates.

FXC STM-1 performs the main SDH functions, and FXC Bridge forms a bridge for the signals between the SDH part and the PDH cross-connect part of the node.

These two units are used together.

1.8 G

gain; *amplification*

increase in signal resulting from amplification

Gaussian filtered minimum shift keying

See Gaussian minimum shift keying

Gaussian minimum shift keying; *Gaussian filtered minimum shift keying*; *GMSK*

modulation technique that is used in GSM networks

Gb interface

interface between the base station system (BSS) or radio network controller (RNC) and the serving GPRS support node (SGSN), allowing the exchange of signalling and user data

general packet radio service; *GPRS*

mobile service which gives packet-switched access over GSM to external data networks

Global System for Mobile Communications

See GSM system

GMSK

See Gaussian minimum shift keying

GND

See earth /GB/

GPRS

See general packet radio service

graphical user interface; *GUI*

user interface for interacting with computer software based on windows and graphical icons

ground /US/

See earth /GB/

grounding /US/

See earthing /GB/

GSM

See GSM system

GSM system; *Global System for Mobile Communications*; *GSM*

European digital system for mobile communications

The GSM system typically operates in the 900 MHz, 1800 MHz, and 1900 MHz frequency bands.

GSM/DCS

See digital cellular system

GUI

See graphical user interface

1.9 H

H-ARQ

See incremental redundancy

HANDO

See handover

handoff /US/

See handover

handover; *handoff /US/*; *switching call in progress*; *HO*; *SCIP*; *HANDO*

action of switching a call in progress from one radio channel to another to secure the continuity of an established call

hardware; *HW*

electronic equipment supporting data transmission and processing tasks, and the electrical and mechanical devices related to their operation

HDLC

See HDLC protocol

HDLC protocol; *high-level data link control protocol*; *HDLC*

bit-oriented synchronous data link layer protocol governing the exchange of data over a single communication link

HETA

base station cabinet heater

high voltage; *HV*

voltage equal to or higher than a specified voltage that may vary legally from one country to another

high-level data link control protocol

See HDLC protocol

high-speed circuit-switched data; *HSCSD*

base station system feature which provides accelerated data rates for end-user applications

HMI

See man-machine interface

HO

See handover

hot insert

feature which enables the detection, configuration and use of hardware that has been added to a node while it is actively running

housekeeping

See operation and maintenance

HSCSD

See high-speed circuit-switched data

hub-and-spoke topology

See star topology

human-machine interface

See man-machine interface

HV

See high voltage

HW

See hardware

hybrid ARQ scheme

See incremental redundancy

1.10 I

I2C

See inter-integrated circuit bus

I2C bus

See inter-integrated circuit bus

IAKx

Indoor Application Kit for Nokia UltraSite EDGE Base Station.

IAKC is an Indoor Application Kit for UltraSite Midi Indoor cabinet.

IBHO

See IMSI-based handover

IC

integrated cell

ICE

See intelligent coverage enhancement

ID; *identifier*

unique identification of an object

IDCA

Indoor cabinet for Nokia UltraSite EDGE Base Station

IDCC

Midi indoor cabinet for Nokia UltraSite EDGE Base Station

IDD

See intelligent downlink diversity

identifier

See ID

IE

See information element

IEC

See International Electrotechnical Commission

IEEE

See The Institute of Electrical and Electronics Engineers, Inc.

IF

See intermediate frequency

IFH

See intelligent frequency hopping

IFHO

See inter-frequency handover

IFM

Interface Module

IFU

See interface unit

ILKA

Indoor Lock Kit

ILMT

Integrated Local Management Tool

IMA

See inverse multiplexing for ATM

IMSI-based handover; *IBHO*

feature that enables controlled roaming and handovers between networks according to the subscriber's international mobile subscriber identity (IMSI)

incremental redundancy; *incremental redundancy scheme*; *hybrid ARQ scheme*; *IR*; *H-ARQ*

technique in enhanced GPRS in which, instead of sending simple repeats of the entire coded packet, additional redundant information is incrementally transmitted if the decoding fails on the first attempt

incremental redundancy scheme

See incremental redundancy

information element; *IE*

basic unit of a transaction capabilities application part (TCAP) message

ingress protection; *IP*

protection of electronic components inside a network element against the ingress of rain, snow and dust

installation; *installing*; *mounting*

process of placing equipment or software in position, and connecting and adjusting it for use

Installation includes the installation of software and configurations done in connection with the installation and commissioning. For example, tasks performed to enable a network element to be mounted at the site.

installing

See installation

integrated services digital network; *ISDN*

integrated services network that provides digital connections between user network interfaces

integration

process of combining components into a system that conforms to the system design

intelligent coverage enhancement; *ICE*

feature of the base station system that is used to expand the coverage of a cell by having separate cells for high and low-power transceivers

intelligent downlink diversity; *IDD*

transmission mode that is part of the smart radio concept and that increases the coverage area of cells by enhancing the downlink radio performance and antenna diversity gain of the base transceiver station

intelligent frequency hopping; *IFH*

base station system solution that uses frequency hopping and intelligent underlay overlay features to reuse frequencies very intensively and hence achieve a higher radio network capacity and better quality

intelligent underlay-overlay; *IUO*

optional feature in the base station controller in which the cell is divided into two layers, the regular layer with regular frequencies and the super-reuse layer with super-reuse frequencies

inter-frequency handover; *IFHO*

handover where the new carrier frequency is different from the current one

inter-IC bus

See inter-integrated circuit bus

inter-integrated circuit bus; *inter-IC bus*; *I2C bus*; *I2C*

serial bus that provides a communication link between the integrated circuits (IC)

inter-RAT handover

See inter-system handover

inter-system handover; *inter-RAT handover*; *ISHO*; *IRHO*; *IRATHO*

handover between mobile communication systems so that the mobile station changes the radio access technology

The inter-system handover can take place, for example, between GSM and WCDMA.

interface unit; *IFU*

functional unit within equipment which is connected to the main unit and involved in the processing of input and output traffic

intermediate frequency; *IF*

frequency produced in a super-heterodyne receiver after combining the incoming signal with a signal from a local oscillator, and frequency in a super-heterodyne transmitter before the signal has been converted to the transmitting frequency by a mixer or a local oscillator

International Electrotechnical Commission; *IEC*

global organisation that prepares and publishes international standards for all electrical, electronic, and related technologies

International Organization for Standardization; *ISO*

non-governmental worldwide organization of national standards bodies whose work results are published as international ISO standards

International Telecommunication Union; *ITU*

telecommunications agency of the United Nations which issues recommendations

International Telegraph and Telephone Consultative Committee

See ITU Telecommunication Standardization Sector

inverse multiplexing

See inverse multiplexing for ATM

inverse multiplexing for ATM; *ATM inverse multiplexing*; *inverse multiplexing*; *IMA*

transmission method in which the ATM cells in a cell stream are divided across several physical E1 links on a cell-by-cell basis and then reassembled at the receiving end without affecting the original cell order

IP

See ingress protection

IR

See incremental redundancy

IRATHO

See inter-system handover

IRHO

See inter-system handover

IRPA

International Radiation Protection Association

ISDN

See integrated services digital network

ISHO

See inter-system handover

ISO

See International Organization for Standardization

ITU

See International Telecommunication Union

ITU Telecommunication Standardization Sector; *ITU-T*

permanent organ of the International Telecommunication Union responsible for studying technical, operating and tariff questions and for issuing Recommendations on them with a view of standardising telecommunications on a worldwide basis

As a consequence of a reform within the International Telecommunication Union (ITU), the name has been changed as of 1 March 1993.

ITU-T

See ITU Telecommunication Standardization Sector

ITU-TS

See ITU Telecommunication Standardization Sector

Iu

See Iu interface

Iu interface; *Iu*

interface between the radio network controller (RNC) and the core network

Iub

See Iub interface

Iub interface; *Iub*

interface between the radio network controller (RNC) and the base transceiver station

Iubis

See Iubis interface

Iubis interface; *Iubis*

internal UTRAN radio network subsystem (RNS) interface between the radio network controller (RNC) and the base transceiver station (node B)

IUO

See intelligent underlay-overlay

Iur

See Iur interface

Iur interface; *Iur*

logical interface for the interconnection of two radio network controller (RNC) components of the UMTS terrestrial radio access network (UTRAN) system

1.11 J

JIS

Japanese Industrial Standard

1.12 L

L2

AC Phase 2

L3

AC Phase 3

LA

See link adaptation

LAN

See local area network

LAPD

See link access procedure on the D-channel

LED

See light emitting diode

light emitting diode; *light-emitting diode*; *LED*

pn-junction diode which emits light when biased in the forward direction

light-emitting diode

See light emitting diode

line terminal equipment; *line terminating equipment*; *LTE*

equipment terminating a transmission link

line terminating equipment

See line terminal equipment

link access procedure on the D-channel; *link access protocol on the D-channel*; *LAPD*

integrated services digital network (ISDN) data link layer (layer 2) protocol for the D-channel

link access protocol on the D-channel

See link access procedure on the D-channel

link adaptation; *automatic link adaptation*; *LA*; *ALA*

procedure in which the channel coding changes during the call, within the limits agreed in the call set-up, and according to the uplink and downlink signal quality and mobile terminal and base transceiver station signal strength

LMB

local management bus

LMP

See local management port

LNA

See low-noise amplifier

LO

See local oscillator

local area network; *LAN*

data transmission network covering a small area

local communication network

See transmission management system

local management port; *LMP*

physical connector for local management with a connection to the local processor and optionally to an internal Local Management Bus (LMB)

local oscillator; *frequency-change oscillator*; *LO*

oscillator used to produce a change of frequency in superheterodyne reception

loop topology

network topology in which the network elements are linked one after the other forming a loop

low voltage; *LV*

voltage equal to or lower than a specified voltage that may vary legally from one country to another

low voltage disconnection; *LVD*

component for protecting the batteries from deep discharge, thus prolonging battery life

low-noise amplifier; *LNA*

amplifier used for amplifying the RF signal coming from the receiver antenna

low-voltage differential signaling /US/

See low-voltage differential signalling

low-voltage differential signalling; *low-voltage differential signaling /US/*; *LVDS*

signalling in which high-speed analogue circuit techniques are used to provide multigigabit data transmission over copper wire

LTE

See line terminal equipment

LV

See low voltage

LVD

See low voltage disconnection

LVDS

See low-voltage differential signalling

LVTTL

low-voltage transistor-transistor logic

1.13 M

M2xA

2-way Receiver Multicoupler unit

M2LA is a 2-way Receiver Multicoupler unit for GSM/EDGE 800/900, and M2HA for GSM/EDGE 1800/1900.

M6xA

6-way Receiver Multicoupler unit

M6LA is a 6-way Receiver Multicoupler unit for GSM/EDGE 800/900, and M6HA for GSM/EDGE 1800/1900.

MA

See mobile allocation frequency list

MA list

See mobile allocation frequency list

MAC

See medium access control

Macrocellular

Application that covers large areas with a cell radius of 1 to 10 km (0.6 to 6 miles). The coverage area is achieved when the antenna is installed high and off the ground. Frequency Hopping bus. See Frequency Hopping.

macrocellular network

cellular network with cell sizes from several hundreds of metres up to 30 km or more

main distribution frame; *MDF*

distribution frame to which are connected on one side the lines exterior to the exchange, and on the other side the internal cabling of the exchange

MAIO

See mobile allocation index offset

man-machine interface; *human-machine interface*; *MMI*; *HMI*

subsystem or function which provides user interface functions in man-machine language

man-machine language; *MML*

text-based command language with a standardised structure, designed to facilitate direct user control of a system

manager

See node manager

mast head amplifier

See masthead amplifier

Master Clock Generator; *MCLG*

The MCLG generates the accurate clock signal for the BTS.

masthead amplifier; *mast head amplifier*; *MHA*

low-noise amplifier (LNA) that is used to compensate the cable loss between the antenna connector and base transceiver station (BTS) input connector

maximal ratio combining; *maximal ratio diversity combining*; *maximum ratio combining*; *MRC*

signal-combining technique in which each signal component is multiplied by a weight factor that is proportional to the signal amplitude

maximal ratio diversity combining

See maximal ratio combining

maximum ratio combining

See maximal ratio combining

MCLG

See Master Clock Generator

MCS

See modulation and coding scheme

MDF

See main distribution frame

mean operating time between failures

See mean time between failures

mean time between failures; *mean operating time between failures*; *MTBF*

expected time between failures

medium access control; *MAC*

procedures for framing and deframing data units, performing error checking, and acquiring the right to use the underlying physical medium

MAC handles the use of physical layer functions, for example, channel allocation and multiplexing.

MHA

See masthead amplifier

Microcellular

Application that typically covers areas with a cell radius of 100 m to 1 km (327 feet to 0.6 miles). The antennas are installed below rooftop level.

microwave radio

See digital microwave radio

Midi

Indoor or Outdoor cabinet with up to six TRXs.

Ministry of Posts and Telecommunications; *MPT*

telecommunications regulatory agency of Great Britain

MMI

See man-machine interface

MML

See man-machine language

MNxx

masthead amplifier that is specific to Nokia UltraSite EDGE Base Station

MNGA is for GSM/EDGE 800/900, MNDA for GSM/EDGE 1800 A band, MNDB for GSM/EDGE 1800 B band, MNPA for GSM/EDGE 1900 A band, MNPB for GSM/EDGE 1900 B band, and MNPC for GSM/EDGE 1900 C band.

mobile allocation frequency list; *MA list*; *MA*

list of the channels (frequences) which the cell uses for mobile allocation

mobile allocation index offset; *MAIO*

hopping sequence starting point for radio time-slots which use the same mobile allocation frequency list but which are synchronised to use different frequencies at a time

mobile exchange

See mobile services switching centre

mobile services switching centre; *mobile telephone exchange*; *mobile exchange*; *MSC*; *MTX*; *USC*; *MX*

mobile network element which performs the switching functions in its area of operation and controls the interworking with other networks

mobile station

See mobile terminal

mobile switching centre

See mobile services switching centre

mobile telephone exchange

See mobile services switching centre

mobile terminal; *mobile station*; *MS*

terminal equipment for communication while on the move within the mobile network

modulation and coding scheme; *modulation coding scheme*; *coding scheme*; *MCS*

data transmission method in which link adaptation dynamically makes adjustments based on radio link quality measurements

modulation coding scheme

See modulation and coding scheme

mounting

See installation

MPT

See Ministry of Posts and Telecommunications

MRC

See maximal ratio combining

MS

See mobile terminal

MSC

See mobile services switching centre

MTBF

See mean time between failures

MTX

See mobile services switching centre

multi BCF control

feature that allows the combination of several base transceiver stations into one logical cell, allowing the operator to increase the capacity of a cell while maintaining maximum spectral efficiency

multidrop connection

transmission solution in which one or more base transceiver station (BTS) chains are connected to one base transceiver station that is connected to the base station controller (BSC)

MWR

See digital microwave radio

MX

See mobile services switching centre

1.14 N

NCRP

National Council on Radiation Protection and Measurements

NCU

Node Control Unit

NE

See network element

NEBS

See Network Equipment Building Standards

NED

See Nokia electronic documentation

NetAct™

See Nokia NetAct™

network coverage

See coverage area

network element; *NE*

telecommunication system belonging to the telecommunications environment that can be managed, monitored, or controlled in a telecommunications network, that has one or more standard interfaces, and is identified by a unique management address

Network Equipment Building Standards; *network equipment building system*; *NEBS*

set of criteria that US telecom companies use to make sure that the network equipment they purchase will support uninterrupted service under extreme environmental conditions

network equipment building system

See Network Equipment Building Standards

network management subsystem

See network management system

network management system; *network management workstation*; *NMS*; *NMWS*

system for controlling and monitoring the resources of a telecommunication network and recording their use and performance, in order to provide telecommunication services

network management workstation

See network management system

network operator; *operator*; *carrier /US/*; *NO*

telecommunications company that provides network services and maintains a telecommunication network

network topology

arrangement and interlinking of network elements within the managed network

NM

See node manager

NMS

See network management system

NMWS

See network management system

NO

See network operator

node B

See base transceiver station

node manager; *manager*; *NM*

application that allows a user to manage individual network elements

The node manager can be, for example, a laptop or personal computer (PC) that contains power system management node manager (PSMMan) software that can be connected to a cabinet control unit and used to perform commissioning and maintenance.

Nokia electronic documentation; *NED*

web-browser for browsing documentation that is used in Nokia Networks, NET

Nokia FlexiHopper

Nokia family of Flexbus-compatible microwave radios for the 13, 15, 18, 23, 26, and 38 GHz frequency bands, in which the radio transmission capacity can be selected using software. The radio transmission capacity of Nokia FlexiHopper can be 2 x 2, 4 x 2, 8 x 2, or 16 x 2 Mbit/s.

Nokia FlexiHopper outdoor unit can be used with different indoor units: FIU 19, RRIC, FC RRI, and FXC RRI.

Nokia Hopper Manager

PC software application used for controlling and monitoring Nokia FlexiHopper and Nokia MetroHopper radios connected to FIU19 or RRIC indoor units.

Nokia MetroHopper

Nokia Flexbus-compatible radio for the 58 GHz frequency band that does not require coordinated frequency planning. The main use of Nokia MetroHopper is to provide 4 x 2 Mbit/s, point-to-point wireless access for Nokia MetroSite BTS and Nokia MetroHub.

Nokia MetroHopper outdoor unit can be used with different indoor units: FIU 19, RRIC, FC RRI, and FXC RRI.

Nokia MetroHub

Nokia's compact transmission node with cross-connection and grooming functions, such as FXC RRI. Nokia MetroHub contains up to five transmission units.

Nokia MetroSite GSM BTS

Nokia's compact four-TRX GSM base station for Nokia MetroSite capacity solution. Nokia MetroSite GSM BTS can contain one transmission unit.

Nokia NetAct™; *NetAct™*

Nokia product for network management

Nokia Q1 Connection Tool

Program that makes connection and node definitions for identifying objects on a Nokia Q1 managed network. See Q1.

Nokia SiteWizard

Nokia product that is a collection of software applications for managing the Nokia UltraSite EDGE BTS on site or remotely from the NetAct Node Manager Server

Nokia UltraSite

Multimedia coverage and capacity macrocellular base station.

1.15 O

OAKB

Cable entry kit for BTS co-siting

OAKx

Outdoor Application Kit for Nokia UltraSite EDGE Base Station

OAKA is for UltraSite Outdoor cabinet and UltraSite Midi Outdoor cabinet, and OAKD for UltraSite Midi Outdoor to Talk-family co-siting.

OBKx

Outdoor Bridge Kit

OBKA is for UltraSite Outdoor cabinet, and OBKB for UltraSite Midi Outdoor cabinet.

OCTU

Outdoor cabinet co-siting kit

OCXO

See oven-controlled crystal oscillator

ODCA

Outdoor cabinet for Nokia UltraSite EDGE Base Station

ODCC

Midi outdoor cabinet for Nokia UltraSite EDGE Base Station

ODCF

See outdoor extreme climate cabinet

ODCM

Mini outdoor cabinet for Nokia UltraSite EDGE Base Station

ODFA

Outdoor (dust) filter kit

OEKA

Outdoor (cable) entry kit

OFKA

Outdoor air filter kit

OFKC

Midi outdoor air filter kit

O&M

See operation and maintenance

omnidirectional cell

Cell with a 360° sector; also known as standard cell.

OMU

Operation and Maintenance Unit

OMUSIG

See operation and maintenance unit signalling

operation and maintenance; *O&M*

all system functions with which the telecommunications company staff receives data on the operation of the system and can affect it

operation and maintenance unit signalling; *OMUSIG*

signalling between the base station controller (BSC) and the base transceiver station (BTS)

operator

See network operator

outdoor extreme climate cabinet; *ODCF*

outdoor cabinet that has an extreme air filter in addition to the same components as a standard outdoor cabinet (ODCA)

oven controlled crystal oscillator

See oven-controlled crystal oscillator

oven oscillator

See oven-controlled crystal oscillator

oven-controlled crystal oscillator; *oven controlled crystal oscillator*; *oven oscillator*; *OCXO*

oscillator in which the crystal and critical circuits are temperature-controlled by an oven

over-voltage protection

See overvoltage protection

overvoltage protection; *over-voltage protection*; *OVP*

type of protection afforded to components or equipment by a semiconductor device that prevents the application of voltage levels greater than the one designated beforehand

OVP

See overvoltage protection

1.16 P

packet access grant channel; *PAGCH*

downlink logical channel that is used for resource assignments

packet broadcast control channel; *PBCCH*

broadcast control channel for packet-switched services

packet common control channel; *PCCCH*

channel that consists of logical channels used for common control signalling

packet paging channel; *PPCH*

downlink logical paging channel used before a downlink packet is transferred

packet random access channel; *physical random access channel*; *PRACH*

uplink logical channel which the mobile stations use for uplink traffic channel reservation

PAGCH

See packet access grant channel

PBCCH

See packet broadcast control channel

PC

personal computer

PCB

See printed board

PCCCH

See packet common control channel

PCM

See pulse code modulation

PCM time-slot; *PCM-TSL*; *PCM TSL*

on the PCM circuits within the network element, a single 64 kbit/s time-slot that includes 8 PCM sub-slots

PCM TSL

See PCM time-slot

PCM-TSL

See PCM time-slot

PDH

See plesiochronous digital hierarchy

PE

See protective earthing /GB/

Peltier elements

Elements that absorb or emit heat when an electric current passes across a junction between two materials. Used for heating and cooling IP20 protection class equipment.

PFC

power factor correction

phase-locked loop; *PLL*

circuit where the phase of an oscillator signal is forced to follow exactly the phase of a reference signal

physical random access channel

See packet random access channel

plesiochronous digital hierarchy; *PDH*

transfer mode in which the timing relationship of the corresponding significant instants of a signal is not limited

PLL

See phase-locked loop

point-to-point; *PTP*; *PP*

value of a service attribute denoting that the communication involves only two network terminations

point-to-point connection; *PTP*

connection established between only two end points

point-to-point short message service; *SMS point-to-point*; *SMS/PP*

service where short messages can be sent from one mobile station (MS) to another

power system management; *PSM*

system that lets users control the power supply of a network element either locally or remotely

PP

See point-to-point

PPCH

See packet paging channel

PRACH

See packet random access channel

printed board; *printed wiring board*; *PWB*

base material that is cut to size, is used to mount electronic components, and bears at least one conductive pattern

printed circuit board

See printed board

printed wiring board

See printed board

protective earth /GB/

See protective earthing /GB/

protective earthing /GB/; *protective earth /GB/*; *equipment earth /GB/*; *protective grounding /US/*; *equipment ground /US/*; *PE*

earthing of parts other than those of the circuit that are susceptible to voltage

protective grounding /US/

See protective earthing /GB/

PSM

See power system management

PTP

See point-to-point connection

PTP

See point-to-point

pulse code modulation; *PCM*

process in which a signal is sampled, and each sample is quantised independently of other samples and converted by encoding to a digital signal

pulse width modulation; *PWM*

signal modulation method in which an analogue input signal's direct current (DC) level controls the pulse width of the digital output pulses

PWB

See printed board

PWM

See pulse width modulation

PWSx

AC/DC Power Supply unit

PWSA is for 230 VAC input, PWSB for -48 VDC input, and PWSC for +24 VDC input.

1.17 Q

Q1

See Q1 protocol

Q1 bus

Bus in Nokia UltraSite EDGE BTS, used for local transmission management (Q1int) and for extending the management to external equipment.

Q1 protocol; *Q1*

serial protocol that is used in transferring management information to and from a network element

1.18 R

RACH

See random access channel

radio access interface

See radio interface

radio access network; *RAN*

third generation network that provides mobile access to a number of core networks of both mobile and fixed origin

radio cellular network

See cellular network

radio frequency; *RF*

frequency range of electromagnetic waves: 3kHz - 3000 GHz

radio frequency hopping; *RF hopping*; *synthesised frequency hopping*; *RF*

frequency hopping in which a transceiver re-tunes itself to a new frequency for each radio time-slot according to the calculated hopping sequence

radio interface; *radio access interface*

interface between the mobile station (MS) and the radio equipment in the network, defined by functional characteristics, common radio (physical) interconnection characteristics, and other characteristics, as appropriate

radio link equipment

See radio relay equipment

radio network controller; *RNC*

network element in a radio access network, which is in charge of controlling the use and integrity of the radio resources

radio receiver; *receiver*; *RX*; *Rx*

device connected to an aerial or other source of radio signals in order to make available in some desired form the required information content of the signals

radio relay

Microwave radio unit that replaces a fixed cable with a microwave radio link in the Abis Interface.

radio relay equipment; *radio link equipment*; *RLE*

radio equipment for establishing an aligned and fixed radio connection between two points

radio relay interface; *RRI*

interface that provides the link between a terminal and the infrastructure network

radio transmitter; *transmitter*; *Tx*; *TX*

assembly of devices which generates, modulates and amplifies a radio-frequency signal and couples it to an antenna for radiation into space as electromagnetic waves

RAKE diversity receiver

See rake receiver

rake finger

See finger

RAKE finger

See finger

rake receiver; *RAKE receiver*; *RAKE diversity receiver*

receiver capable of receiving and combining multipath signals

RAKE receiver

See rake receiver

RAM

See random access memory

RAN

See radio access network

random access channel; *RACH*

uplink channel that is used to carry control information from a mobile station and that may also carry short user packets

random access memory; *random access storage*; *read-write memory*; *RAM*

memory that allows for both reading and writing

random access storage

See random access memory

RCD

residual current device

read-only memory; *read-only storage*; *ROM*

memory whose content can only be read

read-only storage

See read-only memory

read-write memory

See random access memory

received signal quality; *RXQUAL*

in a radio system, the average quality of the received signal

received signal strength indicator; *RSSI*

signal strength indicator that provides radio carrier signal levels

receiver

See radio receiver

receiver multicoupler; *receiving multicoupler*

device that permits the connection and the simultaneous use of several devices, such as transmitters or receivers, to a common or single device, such as an antenna

receiving multicoupler

See receiver multicoupler

receiving signal strength indicator

See received signal strength indicator

rectifier; *AC/DC converter*

device for converting alternating current to direct current

remote BTS manager

BTS manager that allows the monitoring and testing of base transceiver stations (BTS) remotely, by connecting to the base transceiver stations via Nokia NetAct or another network management system

remote tune combining

signal-combining technique in which transmitter signals from up to six transceivers are combined into one antenna with one remote tune combiner unit

reverse link

See uplink

RF

See radio frequency

RF

See radio frequency hopping

RFF

radio frequency fingerprinting

RF hopping

See radio frequency hopping

RFU backplane

Backplane in Nokia UltraSite EDGE BTS cabinet to which RF units are attached.

RIFP

reflected intermediate frequency power

RLE

See radio relay equipment

RNC

See radio network controller

ROM

See read-only memory

RRI

See radio relay interface

RSSI

See received signal strength indicator

RTC

remote tune combining

RTxx

Remote Tune Combiner

RTGA is for GSM/EDGE 900, RTHA for GSM/EDGE 900 H band, RTJA for GSM/EDGE 900 J band, RTDC for GSM/EDGE 1800, RTDA for GSM/EDGE 1800 A band, RTDB for GSM/EDGE 1800 B band, and RTPA for GSM/EDGE 1900.

RTN

return

RX

See radio receiver

Rx

receive

Rx

See radio receiver

RXQUAL

See received signal quality

1.19 S

SAIC

See single-antenna interference cancellation

satellite Abis; *satellite Abis interface*

feature in which geostationary satellite circuits are used between one base station controller and one or several base stations

satellite Abis interface

See satellite Abis

SCF

See site configuration file

SCIP

See handover

SCT

See site configuration tool

SDCCH

See stand-alone dedicated control channel

SDH

See synchronous digital hierarchy

sectored BTS site

BTS site with multiple cells positioned to supply the desired radiation

sectored cell

cell with a conical coverage area achieved by means of a directional antenna

SHO

See soft handover

short message service; *SMS*

telecommunication service for sending and receiving short messages

short message service cell broadcast; *cell broadcast short message service*; *cell broadcast service*; *SMS cell broadcast*; *SMS-CB*; *SMSCB*; *CBS*

service where a short message is sent in one direction to several subscribers, for example to the mobile stations in a certain base station area or cell

single sector

part of the base transceiver station's (BTS) physical equipment that serves a single cell in the network radio topology

single-antenna interference cancellation; *SAIC*

downlink technique that cancels interference with only one receiver antenna in the mobile terminal

SiSS

See site support system

site

See base transceiver station

site

location where network elements or other telecommunication equipment have been installed

A site can contain, for example, a base station and transmission equipment, with an equipment shelter and antenna tower. Several network elements can be located at a site.

site configuration file; *SCF*

file, typically in XML format, which contains the information necessary to configure a site

site configuration tool; *SCT*

tool which takes care of storing the configuration files in XML format

site support system; *SiSS*; *SSS*

system that contains all the elements for providing a battery backed-up, positive-earthed, 48V DC power supply for use by internal and co-sited telecommunications equipment located at non-weather and weather protected sites

site-specific notepad

notepad that the maintenance personnel uses to write down any site-related maintenance information or make notes on site visits for future reference

smart radio concept; *SRC*

feature and solution based on four-way branch diversity reception for uplink enhancements and transmitter diversity in the downlink

SMB

See SMB connector

SMB connector; *snap-on subminiature coaxial connector*; *SMB*

subminiature coaxial connector with a snap-on coupling mechanism for quick connect and disconnect capabilities for use where packaging density is critical

SMS

See short message service

SMS cell broadcast

See short message service cell broadcast

SMS point-to-point

See point-to-point short message service

SMS-CB

See short message service cell broadcast

SMS/PP

See point-to-point short message service

SMSCB

See short message service cell broadcast

snap-on subminiature coaxial connector

See SMB connector

soft handoff /US/

See soft handover

soft handover; *soft handoff /US/*; *SHO*

handover that occurs between different base transceiver stations and in which the radio links are added and abandoned in such a manner that the user equipment always keeps at least one radio link to the radio access network (RAN)

softer handoff

See softer handover

softer handover; *softer handoff*

intra-frequency handover that occurs between sectors or cells within one base transceiver station and where the radio links are added and abandoned in such manner that the user equipment always keeps at least two radio links to the base transceiver station

software; *SW*

programs, procedures, rules, and any integrated documentation pertaining to the operation of a computer system

software build; *SW build*; *build*

collection of programs and files operating in a certain system

software package

See software build

space-time interference rejection combining; *STIRC*

interference rejection combining that uses space-time processing to handle co-channel interference from transmitters that support transmit diversity

spread-spectrum code

See spreading code

spreading

process in which the signal is modulated with the spreading code to get a wideband signal for multipath propagation in spread-spectrum systems

spreading code; *spread-spectrum code*

code that is used for spreading and despreading a signal in spread- spectrum communications

SRC

See smart radio concept

SSS

See site support system

stand alone dedicated control channel

See stand-alone dedicated control channel

stand-alone dedicated control channel; *stand alone dedicated control channel*; *standalone dedicated control channel*; *SDCCH*

logical channel on the radio interface that is used for sending short messages, and during connection set-up used for identification and authentication procedures, and for starting the ciphering

standalone dedicated control channel

See stand-alone dedicated control channel

star topology; *hub-and-spoke topology*

network topology which has direct connections between a traffic collection point (for example, transmission hub) and several remote BTS sites

STIRC

See space-time interference rejection combining

STM

See synchronous transport module

STM-1

See synchronous transport module 1

SW

See software

SW build

See software build

switching call in progress

See handover

Sync

See synchronisation

synchronisation; *synchronization /US/*; *Sync*

process of adjusting the corresponding significant instances of signals to obtain the desired phase relationship between these instances

synchronization /US/

See synchronisation

synchronous digital hierarchy; *SDH*

transfer mode in which there are specified limits to the timing relationship of the corresponding significant instants of a signal

synchronous transport module; *STM*

signal following the structure of an STM-N frame

synchronous transport module 1; *STM-1*

synchronous transport module with the lowest transmission rate (155.52 Mbit/s) for the synchronous digital hierarchy (SDH)

synthesised frequency hopping

See radio frequency hopping

1.20 T

T 1

See T1

T 1 system

See T1

T1; *T 1*; *T 1 system*

American PCM system that carries 24 channels in a 193-bit frame transmitted at 1.544 Mbit/s basic multiplex rate

TC

See traffic channel

TC

See transcoder

TCH

See traffic channel

TCP/IP; *transmission control protocol/Internet protocol*

basic communication protocol used to transmit data over networks, on the Internet as well as on private networks

TCS

See temperature control system

TDMA

See time division multiple access

TE

See terminal equipment

telecommunication terminal

See terminal equipment

telecommunication terminal equipment

See terminal equipment

temperature control system; *TCS*

set of devices and the software for monitoring and controlling the internal temperature, as well as for providing the air circulation, of a network element

terminal equipment; *TE*

equipment that provides the functions necessary for the operation of the access protocols by the user

terminal multiplexer; *TM*

multiplexer used to insert the incoming signals to an STM-N frame

text message service

See short message service

The Institute of Electrical and Electronics Engineers, Inc.; *IEEE*

non-profit, technical professional association which is an authority in technical areas ranging from computer engineering, biomedical technology and telecommunications, to electric power, aerospace and consumer electronics, among others

time division multiple access; *TDMA*

digital transmission technique in which several signals are interleaved in time for transmission over a common channel

time slot

See time-slot

time-slot; *time slot*; *timeslot*; *TS*; *ts*; *TSL*

cyclic time interval that can be recognised and defined uniquely

timeslot

See time-slot

TM

See terminal multiplexer

TMS

See transmission management system

traffic channel; *TCH*; *TC*

logical channel that is assigned to a base transceiver station and is primarily intended for conversation

transceiver; *transmitter-receiver*; *TRX*

combination of transmitting and receiving equipment in a common housing

transcoder; *transcoder unit*; *code converter*; *TC*

device that converts digital signals in one code to the corresponding signals in a different code

transcoder unit

See transcoder

transistor-transistor logic; *TTL*

bipolar technology where the multiple-diode cluster of the diode-transistor logic in the circuit has been replaced by a multiple-emitter transistor

transmission channel; *channel*; *CH*

means of unidirectional transmission of signals between two points

transmission control protocol/Internet protocol

See TCP/IP

transmission management network

See transmission management system

transmission management system; *TMS*

network management system for equipment settings and for centralised retrieval of statistics and alarm information from transmission equipment connected to the system

transmitter

See radio transmitter

transmitter-receiver

See transceiver

TRE

transmission equipment

TRX

See transceiver

TRX channel; *TRX link*; *TRXSIG*

signalling channel from the base station controller to the transceivers that is used, for example, for location updating, call control, handover and paging

TRX link

See TRX channel

TRXSIG

See TRX channel

TS

See time-slot

ts

See time-slot

TSL

See time-slot

TSxx

Transceiver (RF unit) that is specific to Nokia UltraSite EDGE Base Station

TSTB is specific for GSM/EDGE 800, TSGA for GSM 900, TSGB for GSM/EDGE 900, TSDA for GSM 1800, TSDB for GSM/EDGE 1800, and TSPB for GSM/EDGE 1900.

TTL

See transistor-transistor logic

two-way uplink diversity; *2-way uplink diversity*

function by which a base transceiver station (BTS) uses two antennas and two receivers simultaneously on a single channel to obtain improved overall BTS receiver sensitivity in an environment that is subject to random multipath fading

two-way wideband combining; *2-way wideband combining*

signal-combining technique in which transmitter signals from two transceivers are combined into one antenna using one wideband combiner

Tx

See radio transmitter

TX

See radio transmitter

Tx

transmit

1.21 U

UALC

See user access level control

UC

unit controller

UI

See user interface

UL

See Underwriters Laboratories Inc.

UL

See uplink

UMTS

See Universal Mobile Telecommunications System

UMTS terrestrial radio access network; *universal terrestrial radio access network*; *UTRAN*

radio access network (RAN) which consists of radio network controllers (RNC) and base transceiver stations (BTS) and which is located between the Iu interface and the wideband code division multiple access (WCDMA) radio interface

Underwriters Laboratories Inc.; *UL*

independent, not-for-profit product safety testing and certification organisation based in the United States

uninterruptible power supply; *UPS*

device that provides a steady source of electric energy to a piece of equipment

unipolar transistor

See field-effect transistor

Universal Mobile Telecommunications System; *UMTS*

European 3rd generation mobile communication system based on WCDMA and standardised by ETSI

universal terrestrial radio access network

See UMTS terrestrial radio access network

uplink; *reverse link*; *UL*

direction of transmission in which the mobile station transmits and the base transceiver station receives

uplink diversity

See two-way uplink diversity, four-way uplink diversity, and frequency hopping.

UPS

See uninterruptible power supply

USC

See mobile services switching centre

user access level control; *UALC*

feature for preventing unauthorised users from making changes that can affect remote management and telecommunications traffic

user interface; *UI*

interface via which a user can interact with software and peripheral equipment

UTRAN

See UMTS terrestrial radio access network

1.22 V

VC

See virtual channel

VCO

See voltage-controlled oscillator

virtual channel; *VC*

unidirectional transport of ATM cells associated by a common unique identifier value

virtual path; *VP*

unidirectional transport of ATM cells belonging to virtual channels that are associated by a common identifier value

virtual path connection identifier; *VPCI*

identifier that is used with signalling protocols, identifying the virtual path connection between two ATM network elements, or between an ATM network element and a B-ISDN user

virtual path identifier; *VPI*

identifier which identifies a group of virtual channel links, at a given reference point, that share the same virtual path connection (VPC)

VLL

line-to-line voltage

voltage standing wave ratio; *VSWR*

ratio of maximum to minimum voltage in the standing wave pattern that appears along a transmission line. It is used as a measure of impedance mismatch between the transmission line and its load

voltage-controlled oscillator; *VCO*

oscillator for which a change in tuning voltage results in predetermined change in output frequency

VP

See virtual path

VPCI

See virtual path connection identifier

VPI

See virtual path identifier

VSWR

See voltage standing wave ratio

VXxx

Transmission unit that is specific to Nokia UltraSite EDGE Base Station

VXEA is specific for FC E1/T1, VXOA for FXC/STM-1, VXRA for FC RRI, VXRB for FXC RRI, VXTA for FXC E1, and VXTB for FXC E1/T1.

1.23 W

W-CDMA

See wideband code division multiple access

WAF

See wideband antenna filter unit

WAF unit

See wideband antenna filter unit

WAM

See wideband application manager

WBC

Wideband Combining unit (WCxA)

WCC

Wideband Cabinet Core

WCDMA

See wideband code division multiple access

WCDMA application manager

See wideband application manager

WCH

Wideband Cabinet Heater

WCxA

Wideband Combiner that is specific to Nokia UltraSite EDGE Base Station

WCGA is specific for GSM/EDGE 800/900, WCDA for GSM/EDGE 1800, and WCPA for GSM/EDGE 1900.

WCxT

Triple Wideband Combiner that is specific to Nokia UltraSite EDGE Base Station

WCGT is specific for GSM/EDGE 800/900, WCDT for GSM/EDGE 1800, and WCPT for GSM/EDGE 1900.

WEK

Wideband Extension Kit

WFA

Wideband Fan

WHX

Wideband Heat Exchanger

WIC

Wideband Input Combiner

wideband antenna filter

See wideband antenna filter unit

wideband antenna filter unit; *wideband antenna filter*; *WAF unit*; *WAF*

unit that filters unwanted signals from the transmission path, and selects and amplifies the wanted signals from the reception paths

wideband application manager; *WCDMA application manager*; *WAM*

unit that handles O&M functions and carrier control, performs transport channel processing, asynchronous transfer mode (ATM) processing, and controls other processing in its subrack

wideband CDMA

See wideband code division multiple access

wideband code division multiple access; *wideband code-division multiple access*; *wideband CDMA*; *WCDMA*

spread spectrum CDMA technique used to increase the capacity and coverage of wireless communication networks

wideband code-division multiple access

See wideband code division multiple access

wideband power amplifier

See wideband power amplifier unit

wideband power amplifier unit; *wideband power amplifier*; *WPA*

power amplifier unit that provides linear amplification to wideband code division multiple access (WCDMA) carriers with a constant power gain

wideband transceiver unit

See wideband transmitter and receiver unit

wideband transmitter and receiver

See wideband transmitter and receiver unit

wideband transmitter and receiver unit; *wideband transmitter and receiver*; *wideband transceiver unit*; *WTR unit*; *WTR*

transceiver unit in which the transmitter performs modulation and up conversion for the transmitter carrier, and the receiver performs channel selection and down conversion for the selected carrier

WIK

Wideband Indoor Kit

WOC

Wideband Output Combiner

WOK

Wideband Outdoor Kit

WPA

See wideband power amplifier unit

WPS

Wideband Power Supply Unit

WSC

Wideband System Clock

WSM

Wideband Summing and Multiplexing unit

WSP

Wideband Signal Processor unit

WTR

See wideband transmitter and receiver unit

WTR unit

See wideband transmitter and receiver unit

1.24 X

X-polarised antenna

See cross-polarised antenna