SN40 HeNodeB

sistelnetworks

LTE FEMTOCELL FDD

PERFECT SOLUTION FOR INDOOR SCENARIOS

The SN40 HeNodeB is an innovative LTE femtocell designed to be the perfect solution to increase capacity and coverage in indoor environments.

With cognitive radio analysis, connectivity management, and operation and maintenance control, the SN40 provides total control of your femtocellular network while enhancing the whole network performance and profitability.

MAIN FEATURES

- High performance Protocol Stack implementation
- Up to 128 active users and 8 schedulable users per TTI
- 3GPP LTE Rel. 9, LTE-FDD
- MIMO 2x2
- Multiple LTE bands supported
- Modulation schemes up to 64 QAM
- Bandwidth from 1.4 MHz to 20 MHz with maximum TX output power of +13 dBm
- Compact HeNodeB

MULTI-AGENT MANAGEMENT PLATFORM

- High Efficient Platform implemented in C for SON, O&M
- TR-069 and SNMP agent, self healing, O&M, CSG Management
- Supporting distributed and centralized knowledge models
- Spectral sensing and distributed sensing between HeNB's, allowing information sharing for global network decisions
- Database Based Algorithms (CBR's), tracking areas or HeNB's closed subscriber groups
- Active monitoring and optimization over operator's Trace Port

PLUG&PLAY SYSTEM

- Monitoring mode for detecting free bands, configuring the radio interface in the most efficient way
- ARNF algorithms for managing a proper neighbour configuration
- Cell range extension solution for enhancing the RXLev parameters in order to guarantee the CSG connectivity
- RACH Optimization: Preamble, timers and optimized number of attempts
- Self-configuration solution based on TR-069

ADVANCED ALGORITHMS AND TECHNIQUES

- Based on Measurement Reports, Sensing and X2 messages
- Capable of modifying the RB allocation and power masks, minimizing the inter-cell interference
- Standard IOI, RNTP and HII messages over X2 adapted to the specific femto layer needs
- High Efficient MU and SU MIMO algorithms for autonomous switching between configuration modes

Lte™

SMALL CELL FORUM MEMBER

TECHNICAL SPECIFICATIONS

INTERFACES

RF Antennas	2 SMA female
Max Tx power	+13 dBm
Connectivity	WAN: Ethernet 10/100/1000 RJ-45 LAN: Ethernet 10/100/1000 RJ-45
GPS antenna connector	SMA female connector

PHYSICAL CHARACTERISTICS, OPERATING AND STORAGE

DC Power	12 V DC, 5.5A, (external power supply 100-240VAC input)
Operating Temperature	0C to 40ºC, Humidity 5% to 95% RH
Storage Temperature	-20ºC to +70ºC (-4ºF to +158ºF)
Ingress Protection	IP40
Size (WxHxD)	20 x 20 x 5 cm / 7,8 x 7,8 x 2 “
Weight	900 gr. / 1 lb. 15 oz.

FREQUENCY BAND COMBINATIONS

Upper Band		Lower Band		DUPLEX
UL (MHz)	DL (MHz)	UL (MHz)	DL (MHz)	
1920-1980	2110-2170	777-787	746-756	FDD
1710-1750	2110-2155	777-787	746-756	FDD
2500-2570	2620-2690	777-787	746-756	FDD
1850-1910	1930-1990	824-849	869-894	FDD

(Supported bands depending on hardware version)

3GPP LTE REL. 9 PROTOCOLS SUPPORTED

GTP - GPRS Tunneling Protocol
eGTP - Evolved GTP
LTE MAC - LTE Media Access Control
LTE PDCP - LTE Packet Data Convergence Protocol
LTE RLC - LTE Radio Link Control
LTE RRC - LTE Radio Resource Control
S1AP - S1 Application Protocol
X2AP - X2 Application Protocol

OTHER PROTOCOLS

TR069 - Management&Operation (M&O) Agent
TR196 - TR069 FemtoCell Extension
FIPA - Software Agent Communication Methods

PRELIMINARY DATASHEET. The content of this datasheet is preliminary, and is subject to change without prior notice.

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