interWAVE

WAVEXpress
GSM Network In-A-Box
(NIB)

interWAVE's GSM Network-In-A-Box (NIB) integrates all of the elements required for a complete GSM, DCS or PCS network into a single, compact chassis. Its functionality and cost point offer a rapid entry into smaller capacity markets and allow easy network expansion as capacity and coverage requirements increase. Its localized switching capability and compact size make it a cost effective solution ideally suited for enterprises, campuses, specialty networks, remote villages, or other community applications.

Network Features

Features	Capacity/Standard
Maximum Number of TRXs	2 Internal; 8 Total
Maximum Number of BTSs	1 Internal; 5 Total
Trunk Ports	2 for MSC and 2 for BSC (all E1 or all T1)
Total Subscriber	1000 subs @ 0.035Er/sub and 2% GOS[1]
Traffic Capacity	40Er @ 0.1% GOS[2]
Call Processing Capacity	1500 BHCA
Max Number of Full Rate Simultaneous Connections	Up to 60 (non-blocking)
Transmission	Star and Daisy Chain
IN Prepaid support	CAMEL Phase II based SSF

System Specifications

Interfaces

MSC/BSC	Virtual A Interface GSM Compliant Um Air-Interface Abis-Interface, GSM spec. 08.58, 12.21 GSM A-Interface, GSM spec. 04.08, 08.08 GSM MAP-C, MAP-D and MAP-E interfaces, GSM spec. 09.02
PSTN	ITU/ANSI ISUP, ITU/ANSI ISDN PRI, R2, R2 Variants[3]
BTS	GSM Compliant Abis Interface
RF	GSM Compliant Air Interface; supports Phase I, II, II+ GSM and PCS compliant Mobile Stations
Transmission	Dual Port G.703 compliant E1 75/120 Ohm Dual Port T1.403 compliant T1 100 Ohm
Ethernet	IEEE802.3; 10baseT
Serial	DB9 male connector supporting DCE Interface
OMC Link/transport	TCP/IP over E1 or T1 timeslot or Ethernet Port

Radio

GSM Frequency Band	GSM 900, DCS 1800, PCS 1900
GSM Vocoding	Abis Interface supporting EFR or FR
Power Control	Static: 12 dB in 2 dB steps Dynamic: 12 dB in 2 dB steps
Rx Sensitivity	-107 dBm -110 dBm (TurboWAVE) -111 dBm (TurboMax)
Output Power	2W (standard) 16W (TurboWAVE option) 40W (TurboMax)

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Electrical

Power Options	110/220 VAC 50-60 Hz
	-48 VDC
	Optional redundant power supply
Power Consumption	4.10 Amperes @ 115 VAC[4]
	2.00 Amperes @ 230 VAC[4]
	8.20 Amperes @ 48 VAC[4]

Mechanical

Dimensions (HxWxD)	61 x 28 x 41 centimeters
	(24 x 11 x 16 inches)
Weight	20kg (44 lbs)

Environmental

Operating Environment	Temperature: -5 to 45˚C
	Humidity: 10 to 90% (non-condensing)
Regulatory	GSM 900 & DCS 1800: CB Report;
	EN550022, IEC1000-4; PCS 1900:
	FCC Part 15 Class A, NRTL/C; Telecom:
	E1: 120 Ohm CTR 12/13; 75 Ohm NTR- 4/10/11;
	IEC 950: Part 6; FCC Part 15 & Part 68 and
	Industry Canada ICES- 003 & CP-03

Notes: 1. Grade of Service at air interface

2. Grade of Service at trunk interface

3. List of variants available upon request

4. Standard Configuration of two E1/T1 and two TRX cards

Specifications subject to change without notice

This product is designed for professional installation only

See www.iwv.com for the latest version of this data sheet

Effective Date: June 2003

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For further information on interWAVE, please visit us at: www.iwv.com