

**WAVExpress BS Plus**



The WAVExpress BS Plus integrates the base station controller (BSC) and base station (BTS) into a single chassis. It provides wireless access to existing voice and data networks for cellular telephones, laptop computers, and many other mobile stations conforming to the GSM standard. The BS Plus combines all of the functionality of the BSC and the BTS making it the perfect solution to provide additional capacity to a growing market or low cost expansion solution in a new deployment.

**Network Features**

Features	Capacity/Standard
Number of TRXs per BS Plus	Up to three internal (located inside the BS Plus chassis) Up to eight total (two internal and six external TRXs)
Number of BTSs per BS Plus	Up to four BTS nodes plus one internal
Traffic Capacity	37 Erlangs @ 2% Grade of Service
BTS Link	Abis Interface
BSC to MSC Link	GSM A-Interface
WAVExpress	
Frequency Band	900 MHz GSM network, 1800 MHz DCS network, 1900 MHz PCS network
Output Power	2W
Receiver Sensitivity	-107 dBm
TurboWAVE Option	
Frequency Band	900 MHz GSM network, 1800 MHz DCS network
Output Power	16W
Receiver Sensitivity	-110dBm
GPRS	Hardware ready

**System Specifications**

Configurations	
Maximum Number of TRXs	Up to three internal; 8 total (two internal plus 6 external)
Maximum Number of BTSs	1 internal; 4 total
Number of Trunk Ports	Up to 6
Traffic Capacity	37 Erlangs @ 2% GOS <sup>1</sup>
Transmission	Star or Daisy Chain

**Interfaces**

MSC/BSC	GSM Compliant A Interface
BTS	GSM Compliant Abis Interface
RF	GSM Compliant Air Interface; supports Phase 1, 2 or 2+ 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

# WAVExpress BS Plus

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### Radio

GSM RF Interfaces	GSM 900, DCS 1800, PCS 1900
Power Control	Static: 12 dB in 2 dB steps
Rx Sensitivity	-107 dBm

### GSM Vocoding

Integrated TRAU	Supporting Enhanced Full Rate or standard vocoding
Transcoding Capacity	Up to 64 Traffic Channels

### Electrical

Power Options	110/220 VAC 50-60 Hz -48 VDC Optional redundant power supply
Power Consumption	4.10 Amperes @ 115 VAC <sup>2</sup> 2.00 Amperes @ 230 VAC <sup>2</sup> 8.20 Amperes @ -48 VDC <sup>2</sup>

### Mechanical

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

### 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, NTRL/c; Telecom: E1: 120 Ohm CTR12/13; 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  
2. Standard Configuration of Three E1/T1 and Two TRX cards

Specifications subject to change without notice  
This product is designed for professional installation only  
See [www.iww.com](http://www.iww.com) for the latest version of this data sheet

Effective Date: October 2002



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