

Technical Specifications	BL121/512	BL121/2048																								
DTE Port																										
Data Rates (Kbps)	64, 128, 256, 384, 512	64, 128, 256, 384, 512, 768, 1,024, 1,544 (T1 only), 2,048																								
DTE Interface Options	<div>- <b>V.35 Interface:</b> Data Rates: 64-512 Kbps Type: Synchronous Data, RS-422 levels Connector: Winchester 34 pins, female</div> <div>- <b>RS-530 Interface:</b> Data Rates: 64-512 Kbps Type: Synchronous Data, RS-422 levels Connector: D-Type, 25 pins, female</div> <div>- <b>X.21 Interface:</b> Data Rates: 64-512 Kbps Type: Synchronous Data, RS-422 levels Connector: D-Type, 25 pins, female</div>	<div>- <b>V.35 Interface:</b> Data Rates: 64-2,048 Kbps Type: Synchronous Data, RS-422 levels Connector: Winchester 34 pins, female</div> <div>- <b>RS-530 Interface:</b> Data Rates: 64-2,048 Kbps Type: Synchronous Data, RS-422 levels Connector: D-Type, 25 pins, female</div> <div>- <b>X.21 Interface:</b> Data Rates: 64-2,048 Kbps Type: Synchronous Data, RS-422 levels Connector: D-Type, 15 pins, female</div> <div>- <b>T1 Interface:</b> Data Rate: 1,544 Kbps Type: DSX-1, meets CCITT G.703 and G.823 Connector: RJ-45 Line Code: Bipolar AMI or B8ZS</div> <div>- <b>E1 Interface:</b> Data Rate: 2,048 Kbps Type: CEPT-1, meets CCITT G.703 and G.823 Connector: 2 x BNC (unbalanced) or RJ-45 (balanced) Line Code: HDB3 or Bipolar AMI</div>																								
Radio / Modem link																										
Operation	Full Duplex (Simultaneous Transmit/Receive channels)																									
Link Type	Point to Point																									
Frequency Range	2.4 - 2.4835 GHz (Other ranges available for France, Japan, Canada and other countries with different license-free bands)																									
Radio Type	Frequency Hopping Spread Spectrum																									
Hopping Rate	100 hops / second																									
Frequency Stability	+/- 20 ppm																									
Noise Figure	< 8 dB																									
Modulation	2-CPFSK	2-CPFSK (Radio link rates of 0.5 & 1 Mbps) 4-CPFSK (Radio link rate of 2 Mbps) 8-CPFSK (Radio link rate of 3 Mbps)																								
Demodulation	DSP based with Adaptive Equalization																									
Output Power	15 dBm at antenna port. (Transmitted power depends on country's specific regulations and selected antennas)																									
Antennas Ports	1 Transmit Antenna 1 Receive Antenna Connector: 2 x SMA Impedance: 50 Ω																									
Radio Link Data Rates	0.5 Mbps (For DTE rates of 64-256 Kbps) 1 Mbps (For DTE rates of 384, 512 Kbps)	0.5 Mbps (For DTE rates of 64-256 Kbps) 1 Mbps (For DTE rates of 384, 512 Kbps) 2 Mbps (For DTE rates of 768, 1024, 1544 Kbps) 3 Mbps (For DTE rates of 1544, 2048 Kbps)																								
Sensitivity (dBm at 1E-5 BER, before Error Correction)	<table><tr><td>Radio Link Rate</td><td>USA version</td><td>European version</td></tr><tr><td>0.5 Mbps</td><td>- 89</td><td>- 92</td></tr><tr><td>1 Mbps</td><td>- 86</td><td>- 89</td></tr></table>	Radio Link Rate	USA version	European version	0.5 Mbps	- 89	- 92	1 Mbps	- 86	- 89	<table><tr><td>Radio Link Rate</td><td>USA version</td><td>European version</td></tr><tr><td>0.5 Mbps</td><td>- 89</td><td>- 92</td></tr><tr><td>1 Mbps</td><td>- 86</td><td>- 89</td></tr><tr><td>2 Mbps</td><td>- 78</td><td>- 81</td></tr><tr><td>3 Mbps</td><td>- 72</td><td>- 75</td></tr></table>	Radio Link Rate	USA version	European version	0.5 Mbps	- 89	- 92	1 Mbps	- 86	- 89	2 Mbps	- 78	- 81	3 Mbps	- 72	- 75
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Achievable Distance	Depends on a multitude of installation specific parameters such as national regulations, data rate and terrain between the two sites. -USA/FCC - 15 miles -Europe/ETSI - 10km -Deregulated - over 40 km																									
Management and Configuration																										
Set-up, Monitoring and Diagnostics	Via Monitor port																									
Monitor Port	V.24/RS-232, D-Type 9 pins, female																									
Site survey & performance optimization	Software Controlled via Monitor port																									
Front Panel LED Indicators	<div>- Power</div> <div>- Self Test</div> <div>- Data Link Activity:   * TxD   * RxD</div> <div>- Radio Link Status:   * Rx Sync   * Tx Sync</div>	<div>- Power</div> <div>- Self Test</div> <div>- Data Link Activity:   * TxD   * RxD</div> <div>- Radio Link Status:   * Rx Sync   * Tx Sync</div> <div>- Data Link Status (T1/E1):   * LOS (Loss Of Signal)   * AIS ( Alarm Indication Signal)</div>																								
Electrical																										
Power Source	100 - 240 VAC, 25 W max. or 18-72 VDC, 25 W max.																									
Power Connector (DC)	Terminal block																									
Mechanical																										
Dimensions	7.7" x 9.6" x 1.7" / 195 mm x 244 mm x 44 mm.																									
Weight	2.2 lb / 1 Kg																									
Environmental																										
Operating Temperature	32°F to 105°F / 0°C to 40°C																									
Operating Humidity	5% to 95%, non-condensing																									
Standards and Approvals																										
	FCC part 15 ETS 300 - 328 UL, UL/C, TUV/GS, CE																									

The BreezeLINK series offers exceptional ease and simplicity of installation and operation. The BL 121/2048 can be ordered with all popular line interfaces - E1/CEPT-1, T1/DSX-1, V.35, RS-530 or X.21. The BL 121/512 is available with V.35, RS-530 or X.21 interface. Power source can be either 110/220 VAC or 48 VDC. Space requirements are minimal, and the compact size unit may also be installed in a 19" rack (height-1U only!). Configuration of system parameters, as well as extensive status monitoring and diagnostics are easily accessible via any terminal connected to the Monitor interface, and are supported by user friendly menus.

BreezeCOM offers a wide selection of accessories, including antennas and cables as well as specially designed power boosters and amplifiers. Versions are available to meet regulatory requirements in a variety of countries. Using the BreezeLINK enables interconnection of sites over 25 miles (40 Km) apart, providing performance similar to that of leased lines, at a fraction of the cost and time required for installation of wired connections.



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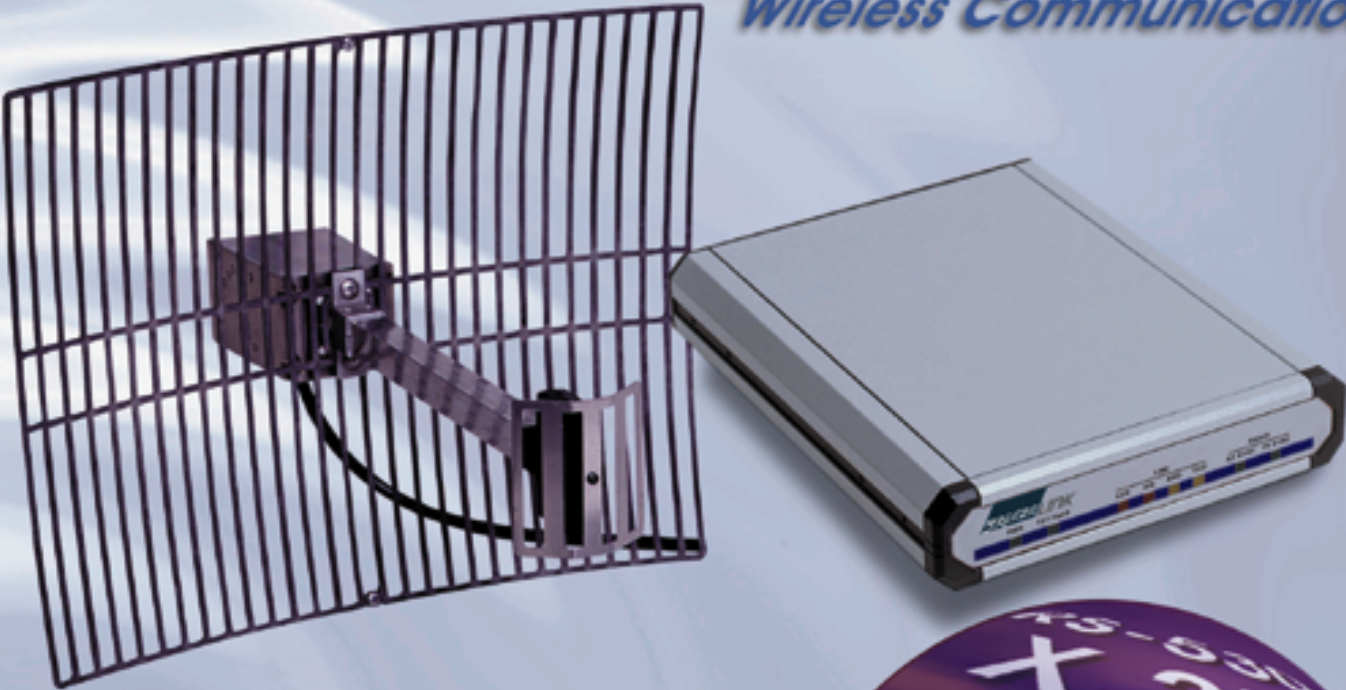
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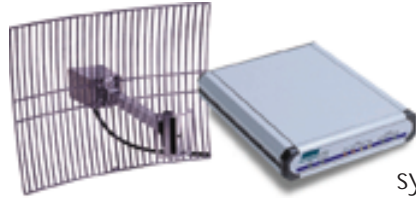


BreezeLINK  
the wireless E1/T1 alternative





## BreezeLINK, the wireless E1/T1 alternative



The BreezeLINK-121 is a full-duplex modem providing an ideal solution for wireless transmission of E1/ T1, and other synchronous data applications.

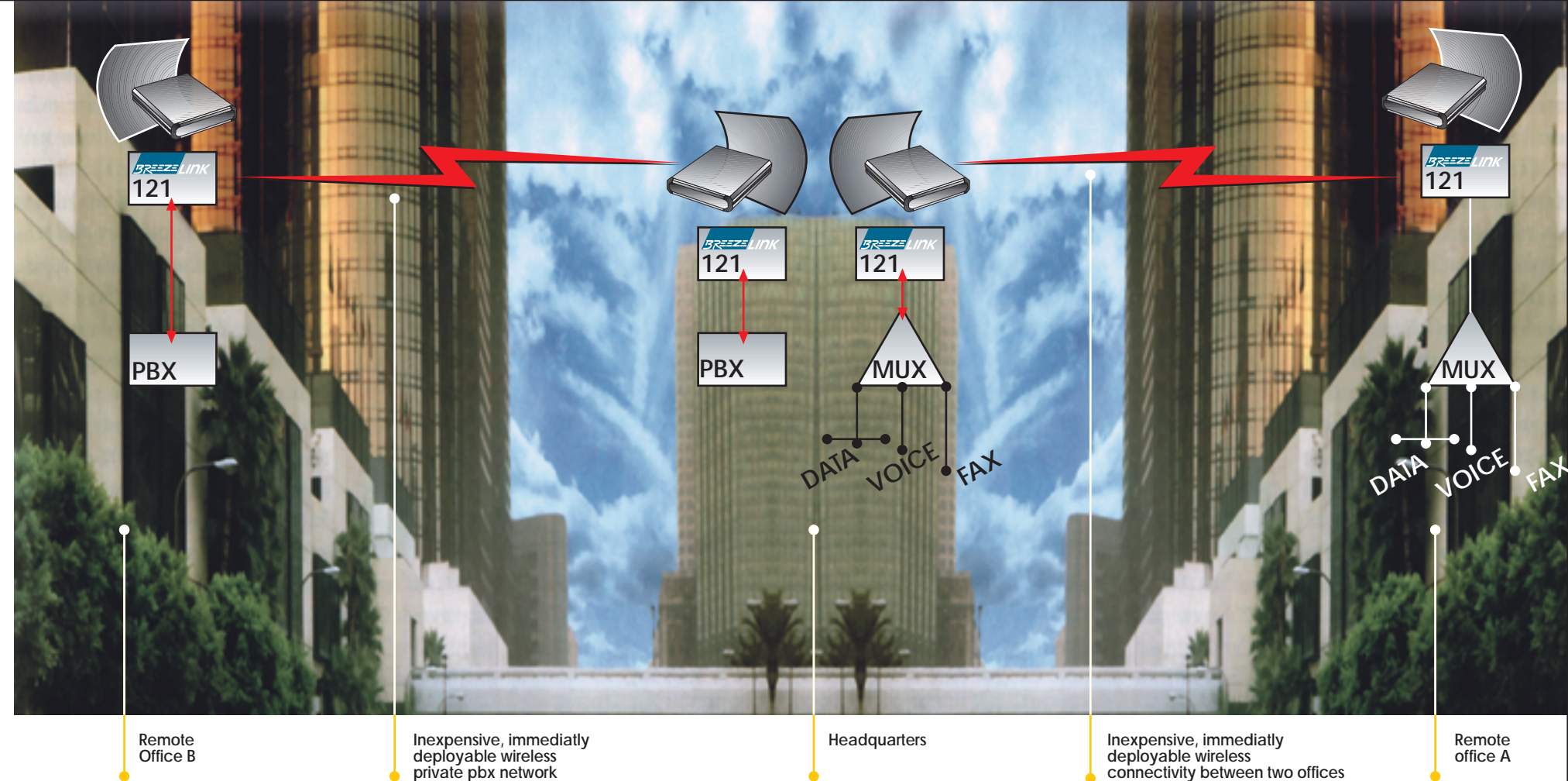
The BreezeLINK-121 supports DTE rates of 64-2048 Kbps, operating at radio link data rates of up to 3 Mbps. The BL121/512 model is designed for optimal performance at DTE data rates of up to 512 Kbps.

The BL121/2048 supports all data rates up to 2,048 Kbps. BreezeLINK-121 is designed for fast and simple installation. User friendly monitoring, diagnostics and configuration ensures instant deployment and immediate adaptation to specific needs. The small, compact BreezeLINK-121 has a modular data port, allowing flexible interfacing with all applicable DTE types.

The BreezeLINK-121 meets all applicable standards and regulations for license-free installation. The frequency hopping spread spectrum radio, combined with an ARQ error correction algorithm, avoids interference, enables coexistence with other wireless networks, and delivers data link error rate better than 10E-9. The use of a multi-rate, DSP-based CPFSK modem with adaptive equalization ensures robust and reliable communication under adverse conditions.

The BreezeLINK 121 is the state-of-the-art solution for reliable and inexpensive wireless data communication.

License free  
voice/data  
infrastructure



## BreezeLINK benefits

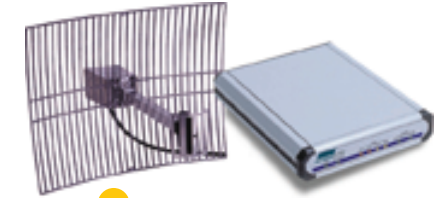


- Innovative technology brings costs down
- Performance exceeds competing wired or wireless solutions at a fraction of the costs
- Dependable and inexpensive alternative to leased line or other wired solutions
- Full duplex operation at data rates of 64 to 2,048 Kbps
- Interfaces supported include: E1/CEPT-1, T1/DSX-1, X.21, V.35 and RS-530.
- Reliability, security and interference immunity
- Frequency hopping spread spectrum radio technology
- DSP based modem with adaptive equalization
- Error correction using ARQ protocol
- Immediately deployable, no license required
- Operation in the 2.4 GHz ISM band
- Approved for license-free installation in most countries

Fast deployment  
mini/micro-cell  
radio links



## BreezeLINK applications



- "Last mile" and rural sites connection
- Extension, immediate deployment or temporary infrastructure for cellular, SMR, PCS, paging and other services
- Campus networks
- Private company networks
- Temporary Infrastructure
- Backup links
- Disaster recovery