

# Bluewave Broadband®

## Narrow and Wideband



### Neptune™ Paging Base Station

The Bluewave Neptune™ Paging Transmitter is a flexible, scalable system for High Stability Simulcast and Non-Simulcast applications.

Bluewave's flexible signal processing architecture allows flexibility and scalability in combining voice and data integration options into an ultra High Stability Transmitter. For public safety and paging carriers, high stability, reliability and timing accuracy is a must.

Bluewave's bandwidth selection permits programming of 12.5 or 25 KHz channel spacing as mandated by narrow banding rules. Remote management and control is available as an option for off site diagnostics.

The Neptune Paging Transmitter is available in bands including Low Band, 72-76 Mid band, 136-174 High Band, UHF 406-512, 929-932, and 950 MHz versions for links as well as simulcast base stations.

#### APPLICATIONS

- Public Safety Paging
- Paging Carriers
- Simulcast Data
- Simulcast Voice
- Utility Network Control
- Load Management
- Rotating Outage
- Private Networks
- Business Networks
- Hospitals

#### EFFICIENT

- Creates less heat which results in lower operating costs
- Runs cooler resulting in longer product life.
- High Reliability with a mature product of over 10 years and redundancy options

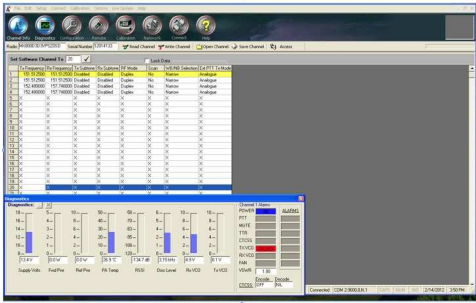
#### KEY FEATURES

- Voice and Data Capable
- Flexible, scalable design  
1-50, 100, 300 Watts
- Station can be upgraded to higher power in the field
- In-band or Cross-band
- High Intercept Point inter-mod resistant Internal Receiver
- Field-upgradeable firmware
- Excellent PA Efficiency  
60-80%
- Emailed alarms
- Lowest audio distortion
- IP Management

## *5 Year Guarantee!*



# Neptune™ Paging Base Station Specifications



GENERAL				
Dimensions	3 ½" high x 13" deep x 19" wide			
Configuration	12U high, 19" rack mount cabinet			
Temperature	0 to 140 F - 18 to +60 °C			
Humidity	95% Non-condensing			
Compliance	FCC: 47 CFR part 90			
Power options	120 Vac, 240 Vac, 13.8 Vdc, 48 Vdc			
Duty Cycle	<b>100% Continuous</b>			
RF Connector	TX & RX Type N		Ref. Type BNC	
STATION CONTROLLER				
Configuration	Microprocessor Based			
Modulations	FM 16K0F3E, 11K0F3E, 16K0F1D, 11K0F1D, 16K0F2D, 11K0F2D			
Bandwidths	12.5 KHz and 25KHz			
Data rates	Up to 9600Bps			
Squelch and control signal	CTCSS, DCS, PURC Tones, EIA			
TRANSMITTER				
RF Power out	MHz	Watts	Watts	Watts
	72-76	1-50	100	N/A
	136-174	1-50	100	300
	216-222	1-50	100	Future
	406-512	1-50	100	300
806-960	1-50	100	Future	
DC Amps	13.8Volts 7 A-DC 18A-DC 11A-48VDC			
Frequency Stability	.000002 PPM GPS Derived			
Spurs	Better than -90 dBc			
Deviation	2.5 KHz and 5 KHz			
Audio Passed	300 to 3000 Hz			
Audio Level	-15 to +5 dBm at 600 ohm unbalanced			
Audio Distortion	1.5% ±.5%			
Pre-emphasis	6 dB per octave, Flat Optional			

OPTIONS	
Power	Battery and or Uninterruptable power supply
Controllers Supported	<ul style="list-style-type: none"> <li>Neptune™ Series 66 for PURC</li> <li>Neptune™ Advanced Control © (under Development)</li> <li>C-net™α</li> <li>C2000</li> </ul>
Internal GPS standard	<ul style="list-style-type: none"> <li>GPS Disciplined oscillator</li> <li>GPS Timed simulcast data</li> </ul>
Delay	Included in Station Controller
Ethernet Access	Configurable network access for remote access and monitoring
Cabinet	<ul style="list-style-type: none"> <li>12U (standard)</li> <li>15U</li> <li>18U</li> <li>20U</li> <li>30U</li> <li>Or larger</li> </ul>
RECEIVER	
Sensitivity	-121dBm / .18uV for 12 dB quieting Typ.
Inter-modulation rejection	>80dB
Discriminator out response	1 to 3000 Hz (flat)
Audio out response	300 to 3000 Hz
Audio out level	+6 to -15 dBm into 600 ohm unbalanced
Audio Distortion	1.5% ± .5% typical
De-emphasis	6 dB per octave to EIA spec.
Receiver current	450 ma 13.8 VDC nominal

Contact Bluewave Broadband for assistance in determining how Neptune™ can improve your system reliability!

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