Code Blue offers an IP Wireless solution for those areas where phone lines are not available or trenching costs are prohibitive. As more users desire ubiquitous connectivity, outdoor hotspots are being added and some include campus common areas, multiple city blocks, town centers and municipal parks and trails. These outdoor hotspots can be cost-effectively deployed along with Code Blue’s emergency voice communication system with the IP Wireless offering from Code Blue by exploiting built-in VLAN (Virtual Local Area Networks) capability maximizing your investment. Utilizing the latest site survey equipment and implementing quality of service and bandwidth management techniques ensure that your emergency call will get through. Monitoring of the systems can be integrated into existing network monitoring systems or can be supplied by Code Blue. Various integration scenarios with existing analog PBX equipment, existing IP PBX equipment, or Code Blue’s ToolVox IP communications server options are available. The system utilizes a standard IP Wireless Point to Multi-Point technology with up to 16 Code Blue units communicating with one Root Bridge.

**NOTE:** Analog phones require ATA to connect to an IP Wireless system.

**System Package Includes:**
- IP Wireless AP/Bridge
- Power Supply
- Antenna
- Cables
Code Blue Corporation’s BLUE ALERT Mass Notification System combines state of the art amplifiers, speaker arrays and sophisticated software control to provide industry leading and NFPA 72, 2010 Chapter 24 compliant mass notification capabilities to your college or corporate campus.

Protect your corporate, medical or higher education campus, military base or community from criminal threats, acts of terror, inclement weather and natural disasters by ensuring your announcements are delivered.

BLUE ALERT allows flexibility in the delivery of announcements by providing text to speech, live broadcast and pre-recorded messages/warning tones options as well as announcement repeat and scheduling features.

Integrate existing IP based systems easily with our robust API or utilize our analog products to integrate non IP based systems. Either way Code Blue Corporation can provide a complete turnkey Mass Notification System or integrate with your existing emergency notification systems.

- Live Broadcast
- Text to Speech
- Pre-Recorded Messages
- Warning Tones
- Scheduled Announcements Options
- Repeating Announcements Options
- All Page
- Group Page
- Individual Page
- Dial Extension/Phone Number for Mass Notification
- Client/Server Based Architecture
- Web Based Administration
- GUI Client Software
  o Compatible with Windows XP/Vista/7
- API Integration

- ToolVox IP Communications Server licensed with BLUE ALERT
- Units equipped with IA4100/IA7700 phones
- Optional PAS units
**Stand Alone System**

**Integrated with Customer PBX**

---

**BLUE ALERT System Diagrams**

**Integration Available:**
- T1 = 24 Simultaneous Calls
- PRI = 23 Simultaneous Calls
- FXS = 1 Call per port
- FXO = 1 Call per port
- SIP/IA/2H323 = Unlimited Calls

**Note:** Blue Alert Mass Notification Units connected to the customer PBX require a 1 for 1 call path (port) integration between the customer PBX and ToolVox IP Communication Server and must be capable of ringing all Code Blue extensions at the same time.
### Parameters

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Test Condition/ Comment</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load Resistance (RL)</td>
<td>f=20Hz-20KHz (1% THD)</td>
<td>2.5</td>
<td>-</td>
<td>-</td>
<td>Ohms</td>
</tr>
<tr>
<td>Max Output Power (Pmax)</td>
<td>f=20Hz-20kHz (0.1% THD)</td>
<td>-</td>
<td>500</td>
<td>-</td>
<td>W</td>
</tr>
<tr>
<td>Output Power (Po)</td>
<td>f=20Hz-20kHz (0.1% THD)</td>
<td>-</td>
<td>400</td>
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<td>W</td>
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<tr>
<td>Sensitivity (Vsen)</td>
<td>Input Signal to 400W</td>
<td>-</td>
<td>3.5</td>
<td>-</td>
<td>Vrms</td>
</tr>
<tr>
<td>Gain (A)</td>
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<td>20.5</td>
<td>21</td>
<td>21.5</td>
<td>dB</td>
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<tr>
<td>Mute Gain (Amute)</td>
<td>Disable Pin pulled low.</td>
<td>-45</td>
<td>-</td>
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<td>dB</td>
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<tr>
<td>Distortion (THD+N)</td>
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<td>0.05</td>
<td>-</td>
<td>%</td>
</tr>
<tr>
<td>Freq. Response (f)</td>
<td>20Hz-20kHz</td>
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<td>+/-0.5</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Noise Floor</td>
<td></td>
<td>-</td>
<td>70</td>
<td>80</td>
<td>uV</td>
</tr>
<tr>
<td>Maximum Current (Imax)</td>
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<td>26</td>
<td>29</td>
<td>A</td>
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<tr>
<td>Damping Factor (DF)</td>
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<td>-</td>
<td>Ohms</td>
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<tr>
<td>Power Bandwidth (BWpw)</td>
<td>Output Power: Pmax</td>
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<td>60k</td>
<td>-</td>
<td>Hz</td>
</tr>
<tr>
<td>Small Signal Bandwidth</td>
<td></td>
<td>-</td>
<td>90k</td>
<td>-</td>
<td>Hz</td>
</tr>
<tr>
<td>Signal to Noise (SNR)</td>
<td></td>
<td>108.5</td>
<td>-</td>
<td>-</td>
<td>dB</td>
</tr>
</tbody>
</table>

### Features

- Proprietary One-Cycle Sound™ Control with Output Feedback
- 117 dBA dynamic Range
- THD+N < 0.05%, 0.1W – Rated Power
- Full range 20 to 20kHz Bandwidth
- System Efficiency > 85%
- Damping Factor > 375 @ 100Hz 4 Ohms
- DC offset < 25mV
- Remote Disable
- Silent Turn-On
- Full Protection:
  - Over Current Protection to Speaker Short
  - Over Current Protection Short to Chassis Ground
  - Over Temperature Protection
  - Power On Self Test (POST)
  - Power Supply Under Voltage Lockout
- Monitor Outputs:
  - Output Current Monitor
  - Temperature Monitor
  - Protect, Clip and Signal Present Indicators
- Internal and remote volume adjustment

### Speaker

- Impedance: 5.3 Ohms
- Frequency Range: 450 Hz to 7000 Hz
- Power Capacity: 420 Watts Continuous Program
## Parameters

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Symbols</th>
<th>Test Condition/ Comment</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
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<tbody>
<tr>
<td>Load Resistance</td>
<td>RL</td>
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<td>2.5</td>
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<td>-</td>
<td>Ohms</td>
</tr>
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<td>Max Output Power</td>
<td>Pmax</td>
<td>f=20Hz-20kHz (1% THD)</td>
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<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Output Power</td>
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<td>-</td>
<td>W</td>
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<tr>
<td>Max Bridged Output Power</td>
<td>Pmaxb</td>
<td>1% THD</td>
<td>500</td>
<td>-</td>
<td>-</td>
<td>W</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>Vsen</td>
<td>Input Signal to Po</td>
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<td>3.5</td>
<td>-</td>
<td>Vrms</td>
</tr>
<tr>
<td>Gain</td>
<td>A</td>
<td></td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>dB</td>
</tr>
<tr>
<td>Distortion</td>
<td>THD+N</td>
<td>10Hz&lt; f &lt;20kHz, 100mW&lt; Pout &lt; Po</td>
<td>-</td>
<td>0.03</td>
<td>0.05</td>
<td>%</td>
</tr>
<tr>
<td>Freq. Response</td>
<td>f</td>
<td>20Hz-20kHz</td>
<td>-</td>
<td>+/-0.5</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Noise Floor</td>
<td>VNF</td>
<td>Input Shorted, A-weighted</td>
<td>-</td>
<td>25</td>
<td>35</td>
<td>uV</td>
</tr>
<tr>
<td>Maximum Current</td>
<td>Imax</td>
<td></td>
<td>18</td>
<td>20</td>
<td>25</td>
<td>A</td>
</tr>
<tr>
<td>Peak Current</td>
<td>Ipk</td>
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<td>27</td>
<td>-</td>
<td>-</td>
<td>A</td>
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<tr>
<td>Damping Factor</td>
<td>DF</td>
<td>RL = 4 ohms @ 100 Hz</td>
<td>-</td>
<td>375</td>
<td>-</td>
<td>Ohms</td>
</tr>
<tr>
<td>Power Bandwidth</td>
<td>BWpw</td>
<td>Output Power: Pmax</td>
<td>-</td>
<td>60k</td>
<td>-</td>
<td>Hz</td>
</tr>
<tr>
<td>Small Signal Bandwidth</td>
<td>BWsm</td>
<td>Output Power: 1Watt</td>
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<td>90k</td>
<td>-</td>
<td>Hz</td>
</tr>
<tr>
<td>Signal to Noise</td>
<td>SNR</td>
<td></td>
<td>117</td>
<td>-</td>
<td>-</td>
<td>dB</td>
</tr>
</tbody>
</table>

### Features

- Patented One-Cycle Sound™ Control
- 2x 150W Switching Amplifiers
- Bridgeable to 500W (4Ohms, 1% THD+N)
- Synchronized Switching Frequencies
- Output Feedback
- 117 dBA dynamic Range
- THD+N < 0.05%, 0.1W to 150W per channel
- Full range 20 to 20kHz Bandwidth
- Efficiency: Amp > 95%
- Damping Factor > 375 @ 100Hz 4 Ohms
- DC offset < 25mV
- Remote Disable
- Silent Turn-On
- Full Protection:
  - Over Current Speaker Short
  - Over Current Short to Chassis Ground
  - Over Temperature Protection
  - Power Supply Under Voltage Lockout
- Monitor Outputs:
  - Output Current Monitor
  - Temperature Monitor
  - Protect and Power On
- Internal and remote volume adjustment

### Speaker

- Impedance: 8 Ohms
- Frequency Range: 450 Hz to 7000 Hz
- Power Capacity: 70 Watts Continuous Program
**Parameters**

- Load Resistance
- Max Output Power
- Output Power
- Max Bridged
- Output Power
- Sensitivity
- Gain
- Distortion
- Freq. Response
- Noise Floor
- Maximum Current
- Peak Current
- Damping Factor
- Power Bandwidth
- Small Signal Bandwidth
- Signal to Noise

**Features**

- IP Controller
- FXS Analog Controller
- No Controller. Controlled by a local Code Blue IA4100/IA5000
- Patented One-Cycle Sound™ Control
- 2x 150W Switching Amplifiers
- Bridgeable to 500W (4Ohms, 1% THD+N)
- Synchronized Switching Frequencies
- Output Feedback
- 117 dBA dynamic Range
- THD+N < 0.05%, 0.1W to 150W per channel
- Full range 20 to 20kHz Bandwidth
- Efficiency: Amp > 95%
- Damping Factor > 375 @ 100Hz 4 Ohms
- DC offset < 25mV
- Remote Disable
- Silent Turn-On
- Full Protection:
  - Over Current Chassis/Speaker
  - Over Temperature Protection
  - Power Supply Under Voltage Lockout
- Monitor Outputs:
  - Output Current Monitor
  - Temperature Monitor
  - Protect and Power On
- Internal and remote volume adjustment

**Symbols**

<table>
<thead>
<tr>
<th>Symbols</th>
<th>Test Condition/ Comment</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>RL</td>
<td>f=20Hz-20KHz (1% THD)</td>
<td>2.5</td>
<td>-</td>
<td>-</td>
<td>Ohms</td>
</tr>
<tr>
<td>Pmax</td>
<td>f=20Hz-20kHz (0.1% THD)</td>
<td>160</td>
<td>150</td>
<td>500</td>
<td>W</td>
</tr>
<tr>
<td>Vsen</td>
<td>Input Signal to Po</td>
<td>3.5</td>
<td>-</td>
<td>-</td>
<td>Vrms</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>dB</td>
</tr>
<tr>
<td>THD+N</td>
<td>10Hz&lt; f &lt;20kHz, 100mW&lt; Pout &lt; Po</td>
<td>0.03</td>
<td>0.05</td>
<td>%</td>
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</tr>
<tr>
<td>f</td>
<td>20Hz-20kHz</td>
<td>+/-0.5</td>
<td>-</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>VNF</td>
<td>Input Shorted, A-weighted</td>
<td>25</td>
<td>35</td>
<td></td>
<td>uV</td>
</tr>
<tr>
<td>Imax</td>
<td></td>
<td>18</td>
<td>20</td>
<td>25</td>
<td>A</td>
</tr>
<tr>
<td>Ipk</td>
<td></td>
<td>27</td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>DF</td>
<td>RL = 4 ohms @ 100 Hz</td>
<td>375</td>
<td>-</td>
<td>-</td>
<td>Ohms</td>
</tr>
<tr>
<td>BWpw</td>
<td>Output Power: Pmax</td>
<td>60k</td>
<td>-</td>
<td>-</td>
<td>Hz</td>
</tr>
<tr>
<td>BWsm</td>
<td>Output Power: 1Watt</td>
<td>90k</td>
<td>-</td>
<td>-</td>
<td>Hz</td>
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<tr>
<td>SNR</td>
<td></td>
<td>117</td>
<td>-</td>
<td>-</td>
<td>dB</td>
</tr>
</tbody>
</table>

**Speaker**

- Impedance: 2.7 Ohms
- Frequency Range: 450 Hz to 7000 Hz
- Power Capacity: 210 Watts Continuous Program