The Global Caché GC-CXG converts Xantech and Xantech compatible IR emitter output voltages to the proper levels required by the Global Caché GC-IRE IR Extender. The GC-IRE translates IR signals to serial ASCII text, which can be read by a PC serial port or over the network utilizing the GC-100 Network Adapter's RS232 serial port. Simply plug the 3.5mm stereo jack into a Xantech distribution box (emitter output) and the other end into the GC-IRE. The GC-IRE is responsible for filtering out noise and providing good IR commands before being converted to serial ASCII text. IR commands are represented as comma delimited ASCII text. (See the API specification for IR serial formats on Global Caché’s website.) In the following installation, a SpeakerCraft AT-1.0 emitter output provides the IR signal for transmission over a network. First, the GC-CXG converts the IR signals for the GC-IRE; then the GC-IRE filters and serializes the IR data for the RS232 serial port on the GC-100. Finally, the GC-100 transmits the serial IR data over the network.
The GC-CXG is optically isolated to avoid noise and ground loop issues found when systems are powered by multiple sources. When used with the GC-IRE, the GC-CXG requires no power supply and supports the full IR frequency range from 30 KHz to 500 KHz. When extension cables are needed for longer runs, to avoid high-frequency degradation they should not be used between the GC-IRE and GC-CXG.

![Diagram of GC-CXG Converter](image.png)

### Specifications

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency range</td>
<td>30KHz</td>
<td>-</td>
<td>500KHz</td>
</tr>
<tr>
<td>Vcc, Supply voltage</td>
<td>4.50V</td>
<td>-</td>
<td>5.50V</td>
</tr>
<tr>
<td>Supply current</td>
<td>-</td>
<td>1.2mA</td>
<td>1.6mA</td>
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