Rugged, highly connected C-Series HF RFID integrated controller/antenna bring fast and low cost RFID solution to the factory floor. The C0405 and C1007 offers direct serial connectivity and network connectivity via our Gateway. The microprocessor architecture used by all C-Series family products accommodates advanced automation features such as C-Macro™, plug and play hardware replacement and modular system expansion. Industrial M12 connectors ensure trouble free operation inside the industrial environment for manufacturing applications such as machine control, work-in-progress and other factory automation applications.

HIGHLIGHTS
- C0405 has an extremely compact size
- C1007 may be mounted directly on metal for installation flexibility
- Reads/Writes ISO 14443A and ISO 15693 compatible RFID Tags
- Integrated controller/antenna design eliminates cabling restrictions for easier installation
- Advanced electronics permit longer read/write distance and reduce sensitivity to the proximity of metal in the field for higher performance in difficult environments
- C-Macro™ command software for easy integration with industrial control systems

APPLICATIONS
C-Series Controllers are ideal for tracking packages on a conveyor belt, allow operation and data write during the semiconductor wafer manufacturing process, hard disk production process and anywhere cleanroom operation are requested.

Tracking
Electronics manufacturing

Hard Disks manufacturing
**DIMENSIONS**

*C0405*

![Diagram of C0405 dimensions]

*C1007*

![Diagram of C1007 dimensions]

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th></th>
<th>C0405</th>
<th>C1007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mechanical Dimensions</strong></td>
<td>40x56x24 mm</td>
<td>103x73x24 mm</td>
</tr>
<tr>
<td><strong>Consumption</strong></td>
<td>2.4W @ 24 Vdc</td>
<td>3.6W @ 24 Vdc</td>
</tr>
<tr>
<td><strong>RF Power</strong></td>
<td>100 mW</td>
<td>500 mW</td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>10-30 Vdc</td>
<td></td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>-20° to 49° C (-4° to 120° F)</td>
<td></td>
</tr>
<tr>
<td><strong>Storage Temperature</strong></td>
<td>-40° to 85° C (-40° to 185° F)</td>
<td></td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
<td>5 – 95% non-condensing</td>
<td></td>
</tr>
<tr>
<td><strong>Vibration</strong></td>
<td>IEC 68-2-6. Test FC 1.5mm, 10 to 55 Hz, 2 hours each axis.</td>
<td></td>
</tr>
<tr>
<td><strong>Shock</strong></td>
<td>IEC 68-2-27. Half-sine 30 g, 11 ms, 3 shocks per axis.</td>
<td></td>
</tr>
<tr>
<td><strong>Air Protocols</strong></td>
<td>ISO 15693; ISO 14443A.</td>
<td></td>
</tr>
<tr>
<td><strong>RF Frequency</strong></td>
<td>13.56 MHz</td>
<td></td>
</tr>
<tr>
<td><strong>Compliance</strong></td>
<td>FCC; CE; TELEC.</td>
<td></td>
</tr>
<tr>
<td><strong>Protection</strong></td>
<td>IP67</td>
<td></td>
</tr>
<tr>
<td><strong>Connectivity</strong></td>
<td>RS232/422/485*, USB</td>
<td></td>
</tr>
</tbody>
</table>

*Note*: Ethernet connection via DATALOGIC Gateway or Hub

**MAXIMUM REAd/WRITE dISTANCES**

<table>
<thead>
<tr>
<th></th>
<th>HF-250HTF</th>
<th>HF-250F</th>
<th>HF-250HTI</th>
<th>HF-250I</th>
<th>HF-250HTS</th>
<th>HMS125</th>
<th>LRP125S</th>
</tr>
</thead>
<tbody>
<tr>
<td>C0405</td>
<td>85 mm</td>
<td>85 mm</td>
<td>85 mm</td>
<td>85 mm</td>
<td>90 mm</td>
<td>24 mm</td>
<td>55 mm</td>
</tr>
<tr>
<td>C1007</td>
<td>145 mm</td>
<td>140 mm</td>
<td>135 mm</td>
<td>132 mm</td>
<td>160 mm</td>
<td>27 mm</td>
<td>90 mm</td>
</tr>
</tbody>
</table>

*Note*: All values measured in free air and under laboratory conditions
INDICATORS

C-Series RFID Controllers have eight LED status indicators. The LEDs are conveniently located on the top panel of the device and display everything from antenna RF and communications activity to Node ID, diagnostic information and power status.

<table>
<thead>
<tr>
<th>LED Color</th>
<th>Red</th>
<th>Green</th>
<th>Amber</th>
<th>Amber</th>
<th>Amber</th>
<th>Amber</th>
<th>Amber</th>
<th>Amber</th>
<th>Green</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function</td>
<td>RF Activity</td>
<td>COM Activity</td>
<td>Node 2^4 (16)</td>
<td>Node 2^3 (8)</td>
<td>Node 2^2 (4)</td>
<td>Node 2^1 (2)</td>
<td>Node 2^0 (1)</td>
<td>Power On</td>
<td></td>
</tr>
</tbody>
</table>

Led descriptions

RF LED: Color is red. The RF LED will illuminate while RF power is being transmitted by the antenna, and will stay ON during the entire RF operation. By default, this occurs each time an RF command is being executed.

COM LED: Color is green. The COM LED indicates that data is being transmitted between the host and the C1007/C0405. On receipt of a command, the COM LED will begin flashing ON and OFF rapidly. After the controller generates the command response, COM LED flashing will halt. When in Continuous Read mode, the COM LED will remain ON and will turn OFF briefly only while a tag is in the antenna field and data is being read or written to the tag.

Node LEDs: Colors are amber. These five LEDs indicate the serial communications type for C1007-232, C0405-232 and -USB models. For the C1007-485 and C0405-485 models, the five amber LEDs indicate (in binary from right to left) the current Node ID value assigned to the controller. The five amber LEDs also flash an error code when a fault occurs (see Manuals).

Power LED: Color is green. The Power LED will remain ON while power is applied to the C1007-Series and C0405-Series RFID Controllers.

CONNECTIONS

CXXXX-232/422-01
Interface Connector - Diagram

PIN DESCRIPTION
1 10.30 VDC POWER
2 0 VDC (POWER GROUND)
3 NOT CONNECTED / TX-*
4 NOT CONNECTED / TX+*
5 NOT CONNECTED / RX-*
6 RX / RX-*
7 TX / NOT CONNECTED*
8 SGND (SIGNAL GROUND)

CXXXX-485-01
Interface Connector - Diagram

PIN DESCRIPTION
1 SGND (SIGNAL GROUND)
2 10.30 VDC POWER
3 0 VDC (POWER GROUND)
4 TX / RX+
5 TX / RX-

CXXXX-USB-01
Interface Connector - Diagram

PIN DESCRIPTION
1 + 5V
2 D-
3 D+
4 GND
5 SHIELD

Note*: for CXXXX-422-01 models.
The company endeavours to continuously improve and renew its products; for this reason the technical data and contents of this catalogue may undergo variations without prior notice. For correct installation and use, the company can guarantee only the data indicated in the instruction manual supplied with the products.