



# Product List

(Part number followed by product name.)

## Flex Connectivity Products

Global Caché's Flex is an industry first. The Flex WiFi or Flex IP network-enables electrical devices instantly using any controller, including traditional controllers, computers, smartphones, and tablets. Additionally, the Flex supports HTTP for web browser control from anywhere on the network. The Flex provides powerful, inexpensive, and simple connectivity to almost any electrical device so it can be controlled and automated using an app or a web app on a smartphone, tablet, or any other user interface. **NOTE: A Flex IP or WiFi must be used in conjunction with a Flex Link Cable.**

### Flex Units

#### *FLEX-IP - Flex IP*

- Power input – 5V micro USB (wall power adapter included).
- Network connection – RJ45, 10/100Mbps, full duplex.
- Flex Link Port supports Flex Link cables.
- Full spectrum IR learner built-in.
- Dimensions: 2.58" L x 1.22" W x .82" H (6.6 cm L x 3 cm W x 2 cm H).

#### *FLEX-IP-P - Flex IP with PoE*

- Power input – 802.3af compliant Power over Ethernet (PoE).
- Network connection – RJ45, 10/100Mbps.
- Flex Link Port supports Flex Link cables.
- Full spectrum IR learner built-in.
- Dimensions: 2.58" L x 1.22" W x .82" H (6.6 cm L x 3 cm W x 2 cm H).

#### *FLEX-WF - Flex WiFi*

- Power input – 5V micro USB (wall power adapter included).
- Network connection – 2.4 GHz 802.11g with internal antenna.
- Supports WiFi Protected Setup (WPS).
- Flex Link Port supports Flex Link cables.
- Full spectrum IR learner built-in.
- Dimensions: 2.55" L x 1.22" W x .48" H (6.5 cm L x 3.1 cm W x 1.3 cm H).

### Flex Link Cables

**When used with a Flex, a separate power source is not needed with Flex Link cables. All Flex Link cables are configurable using internal setup web pages.**

#### *FLC-SL-232 - Flex Link RS232 Serial Cable*

- This product is designed to be used with the Global Caché Flex products to transmit and receive serial data.
- Interface – Serial RS232.
- Connector – Male DB9 port with Male to Female DB9 gender changer included.
- Throughput – Straight through or crossover configurable from setup web page.
- Speed – 300 baud to 115.2 Kbaud.
- Flow control – Bi-directional with hardware RTS/CTS, handshake, and parity.
- Cable/Connector – 5 feet (1.5 meters) cable with 3.5 mm plug connects to Flex Link Port.



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## ***FLC-SL-MJ - Flex Link RS232 MJ Cable***

- This product is designed to be used with the Global Caché Flex products to transmit and receive serial data.
- Interface – Serial RS232.
- Connector – Male 3.5 mm mini jack at 45-degree angle for connection to mini jack serial ports.
- Throughput – Straight through or crossover configurable from setup web page.
- Speed – 300 baud to 115.2 Kbaud.
- Cable/Connector – 6.5 feet (2 meters) cable with 3.5 mm plug connects to Flex Link Port.

## ***FLC-SL-485 - Flex Link RS485 Serial Cable***

- This product is designed to be used with the Global Caché Flex products to transmit and receive serial data.
- Interface – Serial RS485.
- Connector – 5 pin screw terminal block.
- 4-wire (full duplex) and 2-wire (half duplex) capable.
- Speed – 300 baud to 115.2 Kbaud.
- Cable/Connector – 5 feet (1.5 meters) cable with 3.5 mm plug connects to Flex Link Port.

## ***FLC-RS - Flex Link Relay & Sensor Cable***

- This product is designed to be used with Global Caché Flex products to control and monitor the status of electronic devices using relay, contact closure, and current/voltage sensing.
- Four configurable relay outputs; four configurable sensor inputs.
- Outputs – Configurable as contact closure relay/SPST, SPDT, DPDT.
- Inputs – Configurable as contact or current/voltage sensing.
- Din rail mountable.
- Cable/Connector – 5 feet (1.5 meters) with 3.5 mm plug connects to Flex Link Port.

## ***FLC-3E - Flex Link 3 Emitter Cable***

- This product is designed to be used with Global Caché Flex products to convert the Flex Link Port into 3 independent IR outputs.
- Three independent, user selectable IR emitters.
- IR modulation frequency 20 KHz 500 KHz.
- Cable/Connector –three 6.5 feet (2 meters) independent emitter cables, 3.5 mm plug connects to Flex Link Port.

## ***FLC-2E1B - Flex Link 2E1B Cable (2 emitters, 1 blaster)***

- This product is designed to be used with Global Caché Flex products to convert the Flex Link Port into 2 independent IR outputs and 1 IR Blaster.
- Two independent, user selectable IR emitters.
- Third cable is an IR blaster.
- IR modulation frequency 20 KHz-500 KHz.
- Cable/Connector – three 6.5 feet (2 meters) independent cables with 2 emitters and 1 blaster, 3.5 mm plug connects to Flex Link Port.

## ***FLC-BL - Flex Link Blaster Cable***

- This product is designed to be used with Global Caché Flex products to provide long range control of infrared devices.
- Transmits IR data up to 35 feet for control of infrared devices.



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- Invisible IR emission.
- IR modulation frequency 20 KHz-500 KHz.
- 6.5 feet (2 meters) cable with 3.5 mm connector for connection to Flex Link Port.

## ***FLC-T3 - Flex Link Tri-port Cable***

- This product is designed to be used with Global Caché Flex products to convert the Flex Link Port into 3 independent IR outputs. Emitters not included.
- Three independent user selectable IR outputs – 3.5 mm mono jack.
- Third IR port supports IR blaster FLC-BL.
- Cable/Connector –3.5 mm plug connects to Flex Link Port.

## **Flex Accessories (for use with all product lines)**

### ***G-IR-E - Global IR Emitter***

- Emits IR data for control of infrared devices.
- Visible emission provides feedback to user.
- IR modulation frequency 20 KHz-500 KHz.
- 6.5 feet (2 meters) cable with 3.5 mm mono jack.
- Works with all GC product lines.

### ***GC-CGX - GC-CGX IR Converter Cable (GC-100/iTach/Flex to Xantech, SpeakerCraft and Niles)***

- This product connects a GC-100, iTach, or Flex IR output to a Xantech, SpeakerCraft or Niles distribution box 12V IR input.
- Ideal for sending GC-100, iTach, and Flex IR commands into a Xantech IR distribution environment.
- Power supply is not required when used with a GC-100, iTach, or Flex.
- Supports IR frequencies from 30 KHz-200 KHz.
- Optically isolated for circuit isolation and protection.
- Cable/Connector – 6 feet (1.8 meters), 3.5 mm stereo plug.

### ***GC-CXG - GC-CXG IR Converter Cable (Xantech, SpeakerCraft and Niles to GC-IRE)***

- This product connects a Xantech IR output to a GC-IRE.
- Ideal for digitally capturing IR signals from a Xantech, SpeakerCraft, or Niles IR distribution environment.
- Power supply is not required when used with a GC-100, iTach, or Flex.
- Supports IR frequencies from 30 KHz-200 KHz.
- Optically isolated for circuit isolation and protection.
- Cable/Connector – 6 feet (1.8 meters), 3.5 mm stereo plug.



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## iTach Family of Products

The Global Caché iTach is a family of products designed to quickly connect almost any electrical device to a network and includes a choice of WiFi or wired TCP/IP connectivity to infrared (IR), serial (RS232), and contact closure (relay) equipment. The IR units include sensor input and built-in IR learning. An embedded web server allows easy configuration from any browser.

### ***WF2IR - iTach WiFi to IR***

- Power input – 5V DC@500mA (wall power adapter included).
- Network connection – 2.4 GHz 802.11b with 2.5" antenna.
- Three independent user selectable IR outputs – 3.5 mm mono jack.
- Third IR port supports IR blaster.
- Full spectrum IR learner built-in.
- Includes three IR emitters and one IR blaster.
- Dimensions: 3.25" L x 2.25" D x 1.25" H (8.3 cm L x 5.7 cm W x 3.2 cm H).

### ***IP2IR - iTach Wired TCP/IP to IR***

- Power input – 5V DC@500mA (wall power adapter included).
- Network connection – RJ45, 10/100Mbps, full duplex.
- Three independent user selectable IR outputs – 3.5 mm mono jack.
- Third IR port supports IR blaster.
- Full spectrum IR learner built-in.
- Includes three IR emitters and one IR blaster.
- Dimensions: 3.25" L x 2.25" D x 1.25" H (8.3 cm L x 5.7 cm W x 3.2 cm H).

### ***IP2IR-P - iTach TCP/IP to IR with PoE option***

- Power input – 802.3af compliant Power over Ethernet (PoE).
- Network connection – RJ45, 10/100Mbps, full duplex.
- Three independent user selectable IR outputs – 3.5 mm mono jack.
- Third IR port supports IR blaster.
- Full spectrum IR learner built-in.
- Includes three IR emitters and one IR blaster.
- Dimensions: 3.25" L x 2.25" D x 1.25" H (8.3 cm L x 5.7 cm W x 3.2 cm H).

### ***WF2SL - iTach WiFi to Serial***

- Power input – 5V DC@500mA (wall power adapter included).
- Network connection – 2.4 GHz 802.11b with 2.5" antenna.
- Serial port – Male DB9, RS232 from 1200 baud to 115.2 Kbaud
- Flow control – Bi-directional with hardware RTS/CTS and parity.
- Dimensions: 3.25" L x 2.25" D x 1.25" H (8.3 cm L x 5.7 cm W x 3.2 cm H).

### ***IP2SL - iTach Wired TCP/IP to Serial***

- Power input – 5V DC@500mA (wall power adapter included).
- Network connection – RJ45, 10/100Mbps, full duplex.
- Serial port – Male DB9, RS232 from 1200 baud to 115.2 Kbaud



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- Flow control – Bi-directional with hardware RTS/CTS and parity.
- Dimensions: 3.25" L x 2.25" D x 1.25" H (8.3 cm L x 5.7 cm W x 3.2 cm H).

## ***IP2SL-P - iTach Wired TCP/IP to Serial with PoE option***

- Power input – 802.3af compliant Power over Ethernet (PoE).
- Network connection – RJ45, 10/100Mbps, full duplex.
- Serial port – Male DB9, RS232 from 1200 baud to 115.2 Kbaud.
- Flow control – Bi-directional with hardware RTS/CTS and parity.
- Dimensions: 3.25" L x 2.25" D x 1.25" H (8.3 cm L x 5.7 cm W x 3.2 cm H).

## ***WF2CC - iTach WiFi to Contact Closure***

- Power input – 5V DC@500mA (wall power adapter included).
- Network connection – 2.4 GHz 802.11b with 2.5" antenna.
- Three relays – Screw terminal plug, 24V AC/DC@500mA normally open contact with transient voltage suppression.
- Dimensions: 3.25" L x 2.25" D x 1.25" H (8.3 cm L x 5.7 cm W x 3.2 cm H).

## ***IP2CC - iTach Wired TCP/IP to Contact Closure***

- Power input – 5V DC@500mA (wall power adapter included).
- Network connection – RJ45, 10/100Mbps, full duplex.
- Three relays – Screw terminal plug, 24V AC/DC@500mA normally open contact with transient voltage suppression.
- Dimensions: 3.25" L x 2.25" D x 1.25" H (8.3 cm L x 5.7 cm W x 3.2 cm H).

## ***IP2CC-P - iTach Wired TCP/IP to Contact Closure with PoE option***

- Power input – 802.3af compliant Power over Ethernet (PoE).
- Network connection – RJ45, 10/100Mbps, full duplex.
- Three relays – Screw terminal plug, 24V AC/DC@500mA normally open contact with transient voltage suppression.
- Dimensions: 3.25" L x 2.25" D x 1.25" H (8.3 cm L x 5.7 cm W x 3.2 cm H).

## **iTach Sensor Products**

### ***IT-SV1 - IT-SV1 Video Out Sensor***

- This product detects the presence of a video sync signal on composite or component video out. This is typically used as a power state indication of A/V equipment.
- Ideal for determining the power state of VCRs, DVDs, and CD jukeboxes.
- Power supply is not required when used with an iTach.
- Cable/Connector – 6 feet (1.8 meters), RCA "T" connection for A/V equipment and 3.5 mm stereo plug to an iTach.

### ***IT-SP1 - IT-SP1 AC/DC Voltage Sensor***

- This product detects the presence of an AC or DC voltage. An output indication is provided for DC voltages  $\geq \pm 1.5V$  and AC voltages  $\geq \pm 1.5V$  p-p for frequencies  $\geq 10Hz$ . Maximum input voltage is  $\pm 24V$ .
- Ideal for detecting high voltage (via AC wall adapters), phone ringing, or controller logic levels.
- Power supply is not required when used with an iTach.
- Optically isolated and clamped by transient voltage suppressor for circuit isolation and protection.
- Cable/Connector – 6 feet (1.8 meters), tinned leads for voltage input and 3.5 mm stereo plug to an iTach.



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(Part number followed by product name.)

## ***IT-SC1 - IT-SC1 Contact Closure Sensor***

- This product detects the open and closed status of a pair of isolated contacts or the state of open collector devices.
- Ideal for detecting contact closure from relays, switches, and push buttons. Can also be employed to determine the state of open collector devices used on digital controllers and current sensors.
- De-bounce logic is provided to prevent multiply false signals created by contact bounce. A contact or switch must be closed  $\geq 3\text{mS}$  before an output is indicated. A contact must remain open for  $\geq 50\text{mS}$  before an output is not indicated. This asymmetric reaction time provides fast indication of a contact closure while filtering out subsequent contact chatter or bounce.
- Power supply is not required when used with an iTach.
- Cable/Connector – 6 feet (1.8 meters), tinned leads for contacts and 3.5 mm stereo plug to an iTach.

## **iTach Accessories (for use with all product lines)**

### ***G-IR-E - Global IR Emitter***

- Emits IR data for control of infrared devices.
- Visible emission provides feedback to user.
- IR modulation frequency 20 KHz-500 KHz.
- 6 feet (2 meters) cable with 3.5 mm mono jack.
- Works with all GC product lines

### ***GC-CGX - GC-CGX IR Converter Cable (GC-100/iTach/Flex to Xantech, SpeakerCraft and Niles)***

- This product connects a GC-100, iTach, or Flex IR output to a Xantech, SpeakerCraft or Niles distribution box 12V IR input.
- Ideal for sending GC-100, iTach, and Flex IR commands into a Xantech IR distribution environment.
- Power supply is not required when used with a GC-100, iTach, or Flex.
- Supports IR frequencies from 30 KHz-200 KHz.
- Optically isolated for circuit isolation and protection.
- Cable/Connector – 6 feet (1.8 meters), 3.5 mm stereo plug.

### ***GC-CXG - GC-CXG IR Converter Cable (Xantech, SpeakerCraft and Niles to GC-IRE)***

- This product connects a Xantech IR output to a GC-IRE.
- Ideal for digitally capturing IR signals from a Xantech, SpeakerCraft, or Niles IR distribution environment.
- Power supply is not required when used with a GC-100, iTach, or Flex.
- Supports IR frequencies from 30 KHz-200 KHz.
- Optically isolated for circuit isolation and protection.
- Cable/Connector – 6 feet (1.8 meters), 3.5 mm stereo plug.



# Product List

(Part number followed by product name.)

## GC-100 Network Adapters

The GC-100 Network Adapter connects to a network utilizing TCP/IP to infrared (IR), serial, relay and sensor inputs that can interrupt or be polled by another network device. An embedded web server allows easy configuration from any browser.

### ***GC-100-06 - GC-100-06 Network Adapter***

- Power input – 12V DC@500mA (wall power adapter included).
- Network connection – RJ45, 10Mbps.
- Serial port – Male DB9, RS232 from 1200 baud to 57.6 Kbaud bi-directional with hardware flow control and parity.
- Three independent user selectable IR outputs or sensor inputs – 3.5 mm mono jack.
- Dimensions: 6.0" L x 3.0" W x 1.3" H (15.25 cm L x 7.6 cm W x 3.3 cm H).

### ***GC-100-12 - GC-100-12 Network Adapter***

- Power input – 12V DC@500mA (wall power adapter included).
- Network connection – RJ45, 10Mbps.
- Two serial ports – Male DB9, RS232 from 1200 baud to 57.6 Kbaud bi-directional with hardware flow control and parity.
- Three relays – Screw terminal plug, 24V AC/DC@500mA normally open contact with transient voltage suppression.
- Six independent user selectable IR outputs or sensor inputs – 3.5 mm mono jack.
- Dimensions: 12.0" L x 3.0" D x 1.3" H (30.5 cm L x 7.6 cm W x 3.3 cm H).

### ***GC-100-18 - GC-100-018 Network Adapter***

- Power input – 12V DC@500mA (wall power adapter included).
- Network connection – RJ45, 10Mbps.
- Two serial ports – Male DB9, RS232 from 1200 baud to 57.6 Kbaud bi-directional with hardware flow control and parity.
- Three relays – Screw terminal plug, 24V AC/DC@500mA normally open contact with transient voltage suppression.
- Six independent user selectable IR outputs or sensor inputs – 3.5 mm mono jack.
- Dimensions: 18.0" L x 3.0" D x 1.3" H (45.7 cm L x 7.6 cm W x 3.3 cm H).

### ***GC-100-18R - GC-100-18R Network Adapter with Rack Mount Kit***

- Same as GC-100-18 with rack mount kit attached.
- **RM-18** - Rack mount kit for GC-100-18; unit sold separately.

## GC-100 Accessories

### ***GC-IRE - GC-IRE IR Extender***

- Used to digitize signals from IR receivers to an RS232 serial format. IR controllers can now be used as input devices to the digital home.
- Power is provided by the RTS line of the serial port. Requires no external power supply.
- Supports the full IR frequency spectrum from 30 KHz-500 KHz.
- Compatible with the following receivers and input devices: GC-RG1 and GC-CXG (see below for descriptions).



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## ***GC-BL2 - GC-BL2 IR Blaster***

- This product is designed to be used with Global Caché GC-100 Network Adapters to transmit IR signals across a room up to 40 feet.
- No power supply or connecting block required.
- IR modulation frequency 30 KHz-500 KHz.
- Transmits up 40 feet.
- The GC-BL2 employs a 3.5 mm stereo plug and 6 feet (1.8 meters) cable for easy installation and connection to the GC-100 Network Adapter.

## ***GC-RG1 - GC-RG1 General IR Receiver***

- Used with the GC-IRE, this product captures IR signals.
- Power supply is not required when used with the GC-IRE.
- Captures IR frequencies from 30 KHz-72 KHz.
- Small size – .3" H x 1.1" W and 1.25" L
- Xantech compatible.
- Cable/Connector – 6 feet (1.8 meters), 3.5 mm stereo plug.

## **GC-100 Sensor Products**

### ***GC-SV1 - GC-SV1 Video Out Sensor***

- This product detects the presence of a video sync signal on composite or component video out. This is typically used as a power state indication of A/V equipment.
- Ideal for determining the power state of VCRs, DVDs, and CD jukeboxes.
- Power supply is not required when used with the GC-100.
- Cable/Connector – 6 feet (1.8 meters), RCA "T" connection for A/V equipment and 3.5 mm stereo plug to the GC-100.

### ***GC-SP1 - GC-SP1 AC/DC Voltage Sensor***

- This product detects the presence of an AC or DC voltage. An output indication is provided for DC voltages  $\geq \pm 1.5V$  and AC voltages  $\geq \pm 1.5V$  p-p for frequencies  $\geq 10Hz$ . Maximum input voltage is  $\pm 24V$ .
- Ideal for detecting high voltage (via AC wall adapters), phone ringing, or controller logic levels.
- Power supply is not required when used with the GC-100.
- Optically isolated and clamped by transient voltage suppressor for circuit isolation and protection.
- Cable/Connector – 6 feet (1.8 meters), tinned leads for voltage input and 3.5 mm stereo plug to the GC-100 (6 feet).

### ***GC-SC1 - GC-SC1 Contact Closure Sensor***

- This product detects the open and closed status of a pair of isolated contacts or the state of open collector devices.
- Ideal for detecting contact closure from relays, switches, and push buttons. Can also be employed to determine the state of open collector devices used on digital controllers and current sensors.
- De-bounce logic is provided to prevent multiply false signals created by contact bounce. A contact or switch must be closed  $\geq 3mS$  before an output is indicated. A contact must remain open for  $\geq 50mS$  before an output is not indicated. This asymmetric reaction time provides fast indication of a contact closure while filtering out subsequent contact chatter or bounce.
- Power supply is not required when used with the GC-100.
- Cable/Connector – 6 feet (1.8 meters), tinned leads for contacts and 3.5 mm stereo plug to the GC-100.



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## GC-100 Extension Cables

### *IR Extension Cables*

- **GC-CES-06** – 6 feet (1.8 meters), 3.5 mm stereo extension cable.
- **GC-CES-12** – 12 feet (3.6 meters), 3.5 mm stereo extension cable.
- **GC-CES-25** – 25 feet (7.6 meters), 3.5 mm stereo extension cable.

### *Video Extension Cables*

- **GC-CEV-06** – 6 feet (1.8 meters), shielded RCA video extension cable.
- **GC-CEV-15** – 15 feet (4.6 meters), shielded RCA video extension cable.

## Global Accessories (for use with all product lines)

### *G-IR-E - Global IR Emitter*

- Emits IR data for control of infrared devices.
- Visible emission provides feedback to user.
- IR modulation frequency 20 KHz-500 KHz.
- 6 feet (1.8 meters) cable with 3.5 mm mono jack.
- Works with all GC product lines

### *GC-CGX - GC-CGX IR Converter Cable (GC-100/iTach/Flex to Xantech, SpeakerCraft and Niles)*

- This product connects a GC-100, iTach, or Flex IR output to a Xantech, SpeakerCraft or Niles distribution box 12V IR input.
- Ideal for sending GC-100, iTach, and Flex IR commands into a Xantech IR distribution environment.
- Power supply is not required when used with a GC-100, iTach, or Flex.
- Supports IR frequencies from 30 KHz-200 KHz.
- Optically isolated for circuit isolation and protection.
- Cable/Connector – 6 feet (1.8 meters), 3.5 mm stereo plug.

### *GC-CXG - GC-CXG IR Converter Cable (Xantech, SpeakerCraft and Niles to GC-IRE)*

- This product connects a Xantech IR output to a GC-IRE.
- Ideal for digitally capturing IR signals from a Xantech, SpeakerCraft, or Niles IR distribution environment.
- Power supply is not required when used with a GC-100, iTach, or Flex.
- Supports IR frequencies from 30 KHz-200 KHz.
- Optically isolated for circuit isolation and protection.
- Cable/Connector – 6 feet (1.8 meters), 3.5 mm stereo plug.

### *GC-IRL - GC-IRL IR Learner*

- Used with the free GC-IRL IR Learner Utility software, iLearn, this product learns IR codes that are transmitted from IR devices such as remote controls.
- Power is provided by the RTS line of the serial port. Requires no external power supply.
- Supports the full IR frequency spectrum from 30 KHz-500 KHz.
- Connector is a female DB9, RS232 configured to connect to a standard PC serial port.