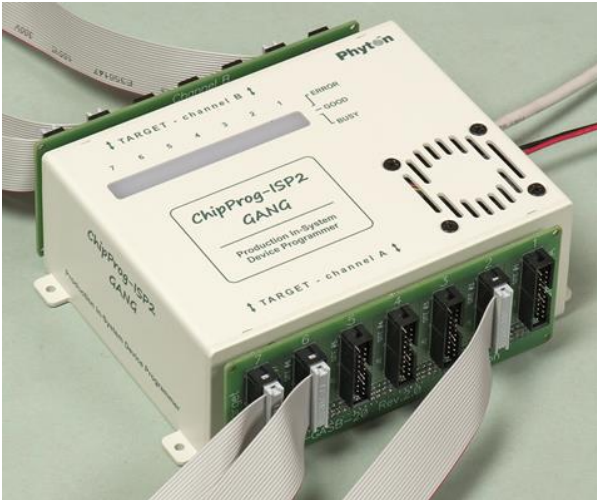


## Signal Splitter Boards for CPI2-Gx Device Programmers

CPI2-Gx device programmers have two 150-pin DIN connectors for outputting ISP signals to target boards. These connectors, marked as Channel A and Channel B, are located on long side of the programmer unit. To simplify connection to the target by means of simple, easy-to-buy, 20-wire ribbon cables, Phyton offers signal splitter boards which can be docked either directly to CPI2-Gx device programmers or through [CPI2-GTRB](#) and [CPI2-GDMR](#) relay modules.



Two splitter boards connected to the CPI2-B1 channels A & B



A splitter board connected to the CPI2-B1 demultiplexed channel A through a CPI2-GDMR relay demultiplexer

The following types of the signal splitter boards are available:

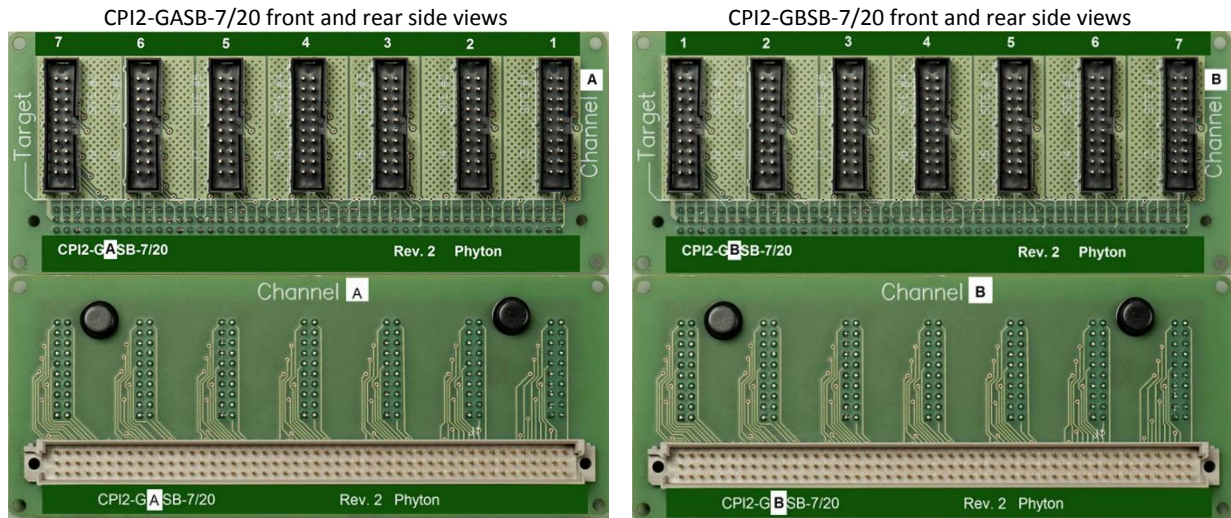
| Item part number | Description   |
|------------------|---|
| CPI2-GASB-7/20   | Splits ISP signals to seven 20-pin male-type connectors. It docks either to a CPI2-Gx programmer's channel <b>A</b> 150-pin connector or to the CPI2-GTRB relay barrier unit connected to the <b>A</b> channel. |
| CPI2-GBSB-7/20   | Splits ISP signals to seven 20-pin male-type connectors. It docks either to a CPI2-Gx programmer's channel <b>B</b> 150-pin connector or to the CPI2-GTRB relay barrier unit connected to the <b>B</b> channel. |
| CPI2-GASB-14/20  | Splits ISP signals to fourteen 20-pin male-type connectors. It docks to a pair of Target1/Target 2 150-pin connectors of the CPI2-GDMR relay demultiplexer docked to the CPI2-Gx <b>A</b> channel.              |
| CPI2-GBSB-14/20  | Splits ISP signals to fourteen 20-pin male-type connectors. It docks to a pair of Target1/Target 2 150-pin connectors of the CPI2-GDMR relay demultiplexer docked to the CPI2-Gx <b>B</b> channel.              |

### CPI2-GASB-7/20 and CPI2-GBSB-7/20 signal splitter boards.

The CPI2-GASB-7/20 board splits ISP signals outputted to the channel A of a seven-site CPI2-G07/14V1 gang device programmer to seven 20-pin male-type connectors. It can be used with any other CPI2-Gx gang programmer having a smaller number of programming sites (4, 6, etc.). On the rear side the board has a 150-pin male-type DIN connector which docks either to a CPI2-Gx programmer's channel **A** or to the CPI2-GTRB relay barrier unit connected to the **A** channel of the programmer. On a front side it has seven male-type connector headers. These headers are intended for plugging 20-wire ribbon cables allowing convenient connection inside of the test fixtures and other ATE.

The CPI2-SBSB-7/20 board is the same as one above, but it is intended for splitting ISP signals on the channel **B** of the CPI2-Gx device programmers if the programmer works with an activated CPI2-DEMUX license and the **A** and **B** channels work sequentially, in turn.

Both CPI2-GASB-7/20 and CPI2-GBSB-7/20 signal splitter boards have the same schematic and design and differ in the 20-pin connector labeling on the front side, only. See the pictures below.



The CPI2-GASB-7/20 and CPI2-GBSB-7/20 signal splitter boards can dock directly to the channel A and B of the device programmer, respectively, or to the TARGET connectors of the CPI2-GTRB relay barrier units, if they are docked to the programmer.

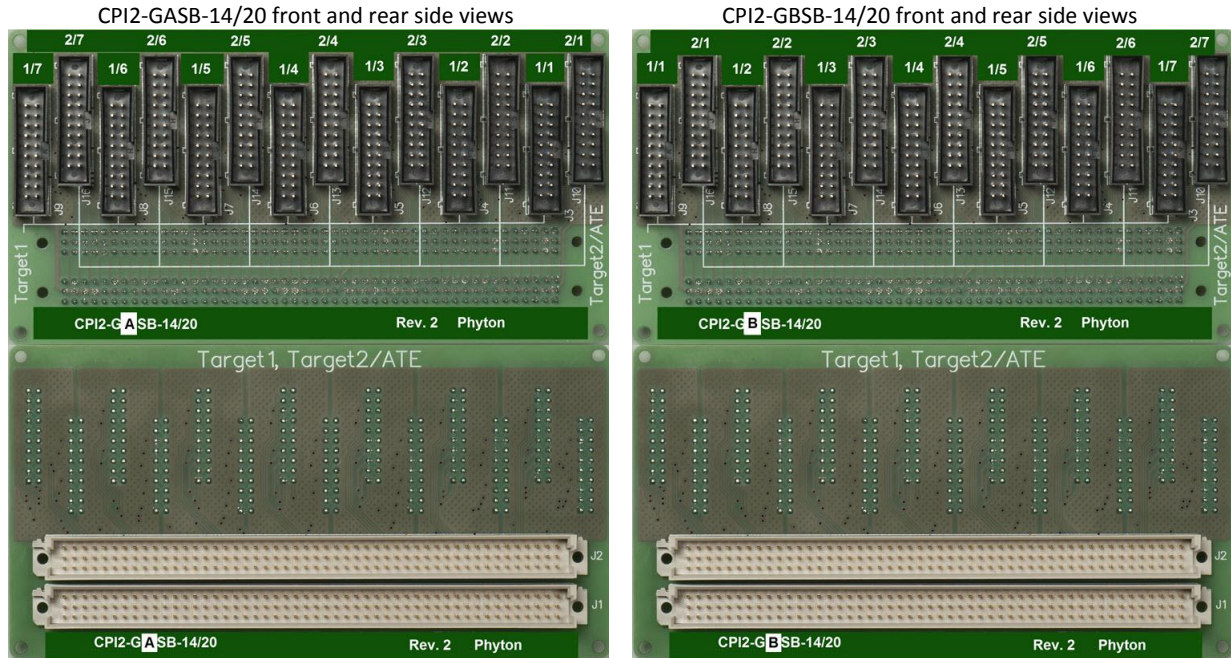
#### **CPI2-GASB-14/20 and CPI2-GBSB-14/20 signal splitter boards.**

These boards are used only in a combination with CPI2-GDMR relay demultiplexers. These units have a pair of output 150-pin female-type DIN connectors: TARGET 1 and TARGET 2 toggling by the ATE signal. So, the ISP signals split in two groups of 20-pin connectors – seven connectors in each group: 1 and 2. Both CPI2-GASB-14/20 and CPI2-GBSB-14/20 signal splitter boards have the same schematic and design and differ in the 20-pin connector labeling on the front side, only. See the pictures below.

The CPI2-GASB-14/20 board splits ISP signals coming from the connectors TARGET 1 and TARGET 2 of a CPI2-GDMR relay demultiplexer connected to the channel A of a CPI2-Gx device programmer – the TARGET 1 signals to 20-pin connectors labeled as 1/1 to 1/7, the TARGET 2 signals to 20-pin connectors labeled as 2/1 to 2/7. On the rear side it has two 150-pin male-type DIN connectors that docks to the demultiplexer, on the front side it has fourteen 20-pin male-type connector headers with notches. These headers are intended for plugging 20-wire ribbon cables allowing convenient connection inside of the test fixtures and other ATE.

The CPI2-GBSB-14/20 board is the same as one above, but it is intended for splitting ISP signals on the channel B of the CPI2-Gx device programmers if the programmer has an activated CPI2-DEMUX license and the A and B channels work sequentially, in turn.

Both CPI2-GASB-14/20 and CPI2-GBSB-14/20 signal splitter boards have the same schematic and design and differ in the 20-pin connector labeling on the front side, only. See the pictures below.



**Connection diagram**

| CPI2-Gx device programmer, CPI2-GTRB or CPI2-GDMR relay module site signal | Pin# of 20-pin connectors on splitter boards |
|--|--|
| Px1  | 1  |
| Px2  | 3  |
| Px3  | 5  |
| Px4  | 7  |
| Px5  | 9  |
| Px6  | 11   |
| Px7  | 13   |
| Px8  | 15   |
| Px9  | 17   |
| Px10   | 19   |
| Px11   | 2  |
| Px12   | 20   |
| GND  | 4, 6, 8, 10, 12, 14, 16, 18                  |

Where 'x' varies from 1 to 7. The connection cross-table remains the same for ISP site.

Each 20-pin connector installed on the front side of the signal splitter board has as many as 8 ground pins. That is why all even wires in the ribbon cable – from 4 to 18 – intersperse with ISP signal wires. This

was made on the purpose to minimize signal glitches and to enable use of long cables connecting the splitter boards with the target devices (DUT). To insure the operation stability at a highest possible programming speed all eight GND lines should be connected to the ground point on the target side.