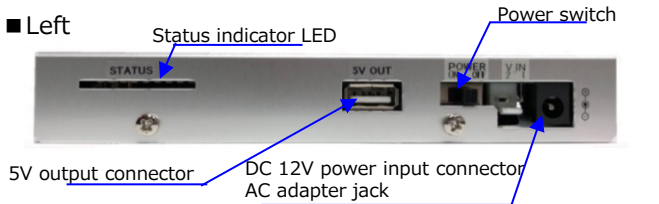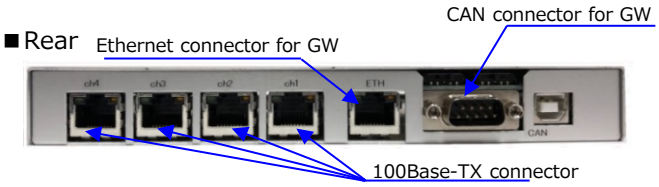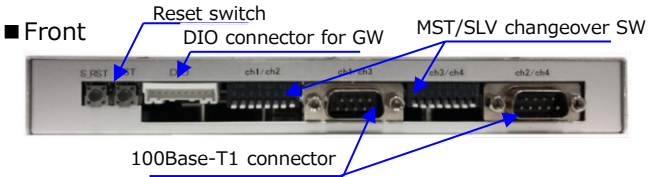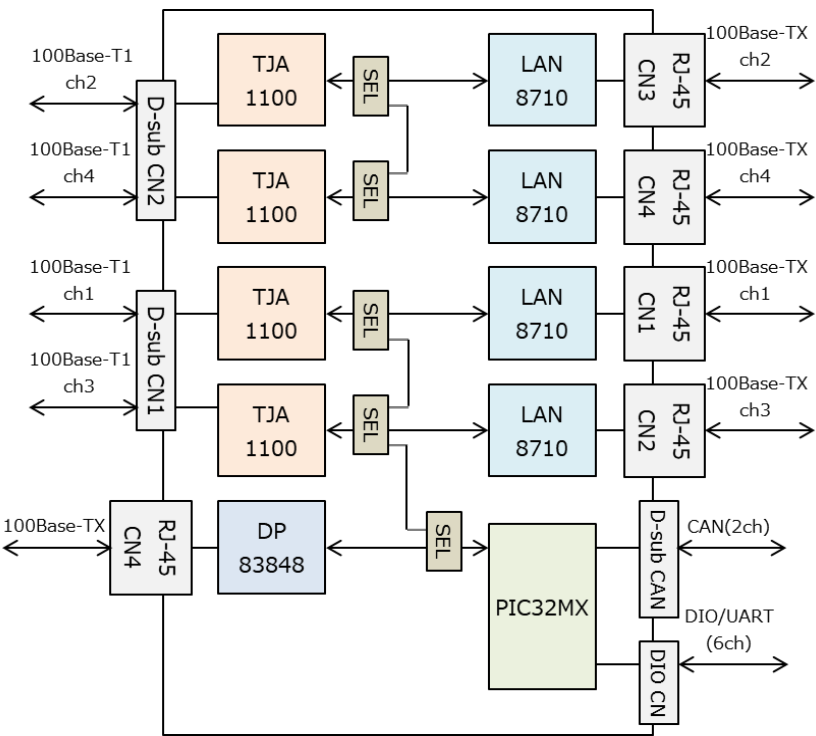# BroadR-Reach Converter

- BroadR-Reach (100Base-T1) 4channels with Master/Slave changeover switch
- 100Base-TX 4channels
- 100Base-TX and 100Base-T1 interconversion
- Operated by 12V (7 to 24V) power supply, equipped with a 5V output
- 100Base-T1 can be connected to a Hub available in the market
- 100Base-T1 PHY reset control is realized
- It can act as a Gateway by converting CAN; 2 channels and DIO; up to 6 channels or UART; up to 3 channels to 100Base-Tx or 100Base-T1
  （This can be developed upon request. Please contact us for more detail.）
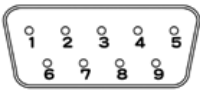
Configuration

■Block chart

100Base-T1 ch2 — D-sub CN2 — TJA 1100 — SEL — LAN 8710 — RJ-45 CN3 — 100Base-TX ch2

100Base-T1 ch4 — TJA 1100 — SEL — LAN 8710 — RJ-45 CN4 — 100Base-TX ch4

100Base-T1 ch1 — D-sub CN1 — TJA 1100 — SEL — LAN 8710 — RJ-45 CN1 — 100Base-TX ch1

100Base-T1 ch3 — TJA 1100 — SEL — LAN 8710 — RJ-45 CN2 — 100Base-TX ch3

100Base-TX — RJ-45 CN4 — DP 83848 — SEL — PIC32MX — D-sub CAN — CAN(2ch)

PIC32MX — DIO CN — DIO/UART (6ch)

■Front
- Reset switch
- DIO connector for GW
- MST/SLV changeover SW
- 100Base-T1 connector

■Rear
- Ethernet connector for GW
- CAN connector for GW
- 100Base-TX connector

■Left
- Status indicator LED
- Power switch
- 5V output connector
- DC 12V power input connector AC adapter jack

■Right

■ BroadR-Reach Converter Price

Product	Price（JPY）
BR-CONV	￥168,000

The list price is the price when purchased in Japan.
When purchasing from overseas, please contact a trading company.

100Base-T1 connector

Unit side: D-Sub 9pin male
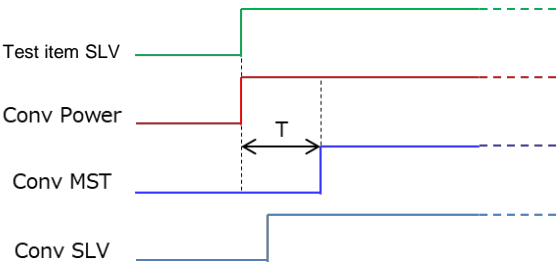Cable side: D-Sub 9pin female

ch1/ch3 connector

Pin No.	Name
1	100Base-TX ch3 P
2	100Base-TX ch3 N
4	100Base-TX ch1 P
5	100Base-TX ch1 N

ch2/ch4 connector

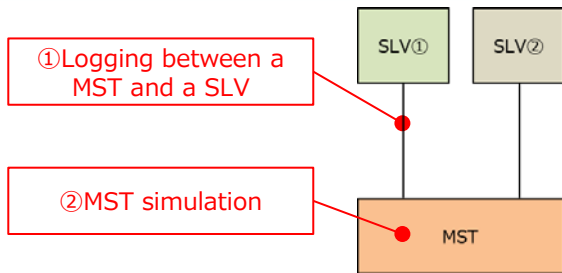| Pin No.	Name
1	100Base-TX ch4 P
2	100Base-TX ch4 N
4	100Base-TX ch2 P
5	100Base-TX ch2 N

100Base-T1 PHY Reset control

100Base-T1 requires to release MST reset after SLV action.

Start-up time of the Convertor MST can be set uniquely.

So, by sharing a power supply between the Convertor and the Test item SLV, the Test item SLV starts taking action at the same time as the Convertor is turned on, and the Convertor MST can be started after a set period of time.

Test item SLV
Conv Power
T
Conv MST
Conv SLV

BroadR-Reach Converter

Convert mode

①Logging between a MST and a SLV

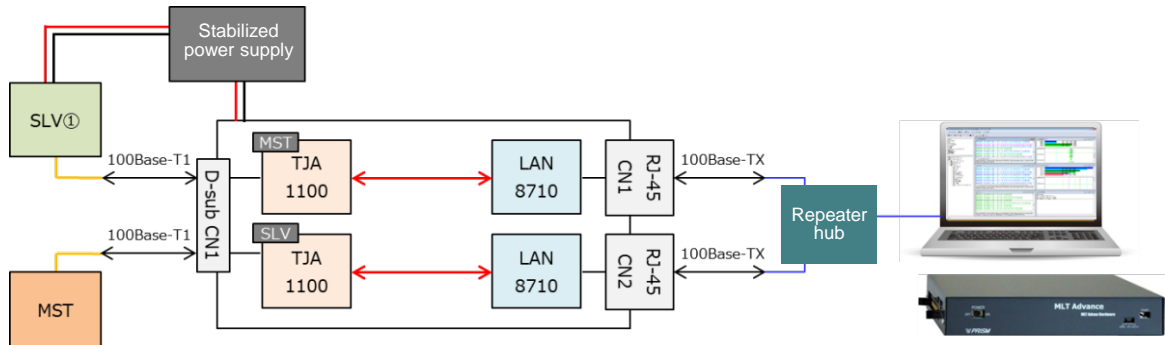②MST simulation

SLV① SLV② MST

It can convert up to 4 channels of 100Base-T1 to 100Base-TX.

100Base-TX can be monitored by connecting a PC, or operated as a counter device.

Master start-up time can also be adjusted by using external trigger.
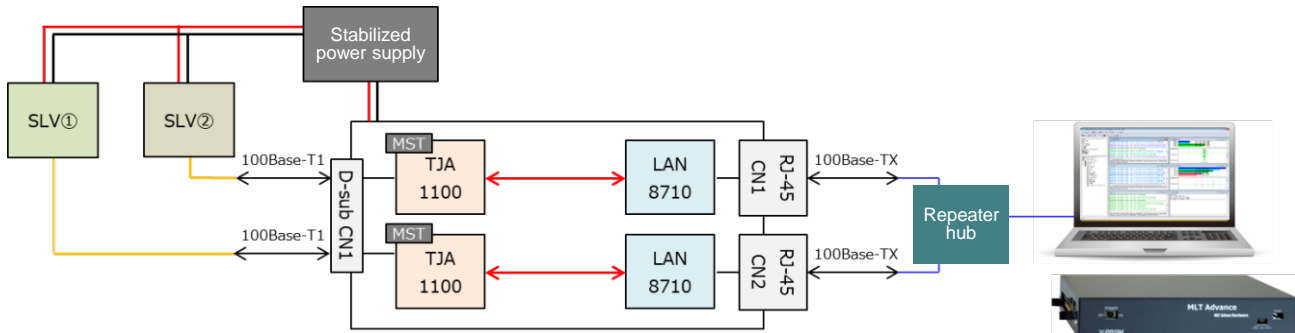
MLT Advance (sold separately) can be used as a monitoring or counter device.

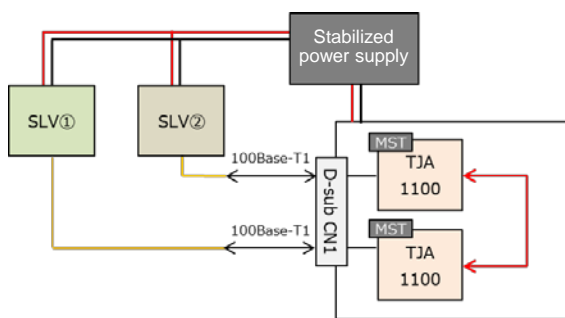Note: The repeater hub is not included in the product.

①Logging between a MST and a SLV

Stabilized power supply — SLV① — 100Base-T1 — MST — 100Base-T1 — D-sub CN1 — MST TJA 1100 — SLV TJA 1100 — LAN 8710 — LAN 8710 — RJ-45 CN1 — RJ-45 CN2 — 100Base-TX — 100Base-TX — Repeater hub — MLT Advance

②MST simulation

Stabilized power supply — SLV① SLV② — 100Base-T1 — 100Base-T1 — D-sub CN1 — MST TJA 1100 — MST TJA 1100 — LAN 8710 — LAN 8710 — RJ-45 CN1 — RJ-45 CN2 — 100Base-TX — 100Base-TX — Repeater hub — MLT Advance

MST/SLV changeover mode

Stabilized power supply — SLV① SLV② — 100Base-T1 — 100Base-T1 — D-sub CN1 — MST TJA 1100 — MST TJA 1100
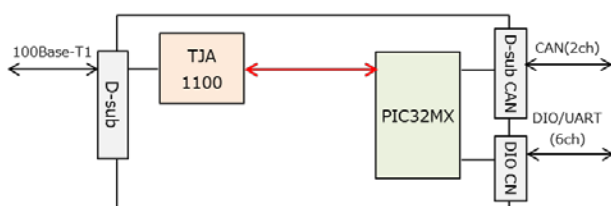
It is equipped with a Master-Slave changeover switch.

Communication between 2 MSTs or 2 SLVs can also be established by setting the convertor to a counter-device.

Note: The MST/SLV changeover mode can not be monitored.

Gateway mode   Note: Developed upon request

100Base-T1 — D-sub — TJA 1100 — PIC32MX — D-sub CAN — CAN(2ch) — DIO CN — DIO/UART (6ch)

It can act as a Gateway by converting CAN; 2 channels and DIO; up to 6 channels or UART; up to 3 channels to 100Base-Tx or 100Base-T1.

Note: Combination of DIO and UART is also possible

The Convert mode and the Gateway mode can be used simultaneously.