

Jumper and switches on GTL-9U-card

JP1, JP2 and JP3 (top side): jumper for LV1V5_COND1
(default)→ solder-bridges after voltage-testing.

JP4, JP5, JP6 and JP93 (top side): jumper for LV1V5_XIL
(default)→ solder-bridges after voltage-testing.

JP7 (SMD, bottom side): jumper for “CLK_FBIN_REC1”
(default)→ not inserted.

JP8 (SMD, bottom side): HSWAP_EN input of REC1-chip
1-2 → HSWAP_EN=LV3V3, keeps jumper in OFF-position (I/O-pins in high-Z before configuration). In this position **configuration of PSB-chip via VME not possible**.
2-3 (default)→ HSWAP_EN=GND, enables pull-up-Rs of all I/O-pins in PSB-chip before configuration. In this position **configuration of PSB-chip via VME possible**.

JP9 (SMD, bottom side): HSWAP_EN input of REC2-chip
1-2 → HSWAP_EN=LV3V3, keeps jumper in OFF-position (I/O-pins in high-Z before configuration). In this position **configuration of PSB-chip via VME not possible**.
2-3 (default)→ HSWAP_EN=GND, enables pull-up-Rs of all I/O-pins in PSB-chip before configuration. In this position **configuration of PSB-chip via VME possible**.

JP10 (SMD, bottom side): jumper for “CLK_FBIN_REC2”
(default)→ not inserted.

JP11 (SMD, bottom side): HSWAP_EN input of REC3-chip
1-2 → HSWAP_EN=LV3V3, keeps jumper in OFF-position (I/O-pins in high-Z before configuration). In this position **configuration of PSB-chip via VME not possible**.
2-3 (default)→ HSWAP_EN=GND, enables pull-up-Rs of all I/O-pins in PSB-chip before configuration. In this position **configuration of PSB-chip via VME possible**.

JP12, JP14 and JP15 (top side): jumper for LV1V5_COND2
(default)→ solder-bridges after voltage-testing.

JP13 (SMD, bottom side): jumper for “CLK_FBIN_REC3”
(default)→ not inserted.

JP16 (SMD, top side): VREF for Parallel-Cable-IV
(default)→ nothing inserted.

JP17 (SMD, top side): selection of VIO of masterblaster
(default)→ 0Ω inserted.

JP18, JP19, JP20 and JP21 (SMD, top side): jumper for “TMS-signals” for PROMs and VME-chips. These jumpers are set in the same way as JP40-JP43.

OFF → chip **not** in JTAG-chain.

ON (default)→ chip in JTAG-chain.

JP18 => JP40: VME64x-chip

JP19 => JP41: PROM of VME64x-chip

JP20 => JP42: VME-chip

JP21 => JP43: PROM of VME-chip

JP22, JP23, JP24 and JP25 (SMD, top side): jumper for “TMS-signals” for PROMs and COND-chips. These jumpers are set in the same way as JP44-JP47.

OFF → chip **not** in JTAG-chain.

ON (default) → chip in JTAG-chain.

JP22 => JP44: PROM of COND1-chip

JP24 => JP45: COND1-chip

JP23 => JP46: PROM of COND2-chip

JP25 => JP47: COND2-chip

JP26, JP27, JP28 and JP29 (SMD, bottom side): jumper for “TMS-signals” for PROMs of REC1-chip. These jumpers are set in the same way as JP49-JP52.

OFF → chip **not** in JTAG-chain.

ON (default) → chip in JTAG-chain.

JP26 => JP49: PROM1 of REC1-chip

JP27 => JP50: PROM2 of REC1-chip

JP28 => JP51: PROM3 of REC1-chip

JP29 => JP52: PROM4 of REC1-chip

JP30, JP31, JP32 and JP33 (SMD, bottom side): jumper for “TMS-signals” for PROMs of REC2-chip. These jumpers are set in the same way as JP53-JP56.

OFF → chip **not** in JTAG-chain.

ON (default) → chip in JTAG-chain.

JP30 => JP53: PROM1 of REC2-chip

JP31 => JP54: PROM2 of REC2-chip

JP32 => JP55: PROM3 of REC2-chip

JP33 => JP56: PROM4 of REC2-chip

JP34, JP35, JP36 and JP37 (SMD, bottom side): jumper for “TMS-signals” for PROMs of REC3-chip. These jumpers are set in the same way as JP59-JP62.

OFF → chip **not** in JTAG-chain.

ON (default) → chip in JTAG-chain.

JP34 => JP59: PROM1 of REC3-chip

JP35 => JP60: PROM2 of REC3-chip

JP36 => JP61: PROM3 of REC3-chip

JP37 => JP62: PROM4 of REC3-chip

JP38 (top side): jumper for “SEL_CABLE_JTAG”

OFF (default) → selection via VME.

ON → MB and PC-IV selected for JTAG.

JP39 (SMD, top side): voltage selection for masterblaster

1-2 (default) → LV3V3.

2-3 → VCC.

JP40 (SMD, bottom side): VME64x-chip in JTAG-chain

1-2 → VME64x-chip in JTAG-chain.

2-3 (default) → VME64x-chip **not** in JTAG-chain.

JP41 (SMD, top side): PROM of VME64x-chip in JTAG-chain

1-2 (default) → PROM of VME64x-chip in JTAG-chain.

2-3 → PROM of VME64x-chip **not** in JTAG-chain.

JP42 (SMD, bottom side): VME-chip in JTAG-chain

1-2 → VME-chip in JTAG-chain.

2-3 (default) → VME-chip **not** in JTAG-chain.

JP43 (SMD, top side): PROM of VME-chip in JTAG-chain

1-2 (default) → PROM of VME-chip in JTAG-chain.

2-3 → PROM of VME-chip **not** in JTAG-chain.

JP44 (SMD, top side): PROM of COND1-chip in JTAG-chain

1-2 (default) → PROM of COND1-chip in JTAG-chain.

2-3 → PROM of COND1-chip **not** in JTAG-chain.

JP45 (SMD, top side): COND1-chip in JTAG-chain

1-2 → COND1-chip in JTAG-chain.

2-3 (default) → COND1-chip **not** in JTAG-chain.

JP46 (SMD, top side): PROM of COND2-chip in JTAG-chain

1-2 (default) → PROM of COND2-chip in JTAG-chain.

2-3 → PROM of COND2-chip **not** in JTAG-chain.

JP47 (SMD, top side): COND2-chip in JTAG-chain

1-2 → COND2-chip in JTAG-chain.

2-3 (default) → COND2-chip **not** in JTAG-chain.

JP48 (SMD, bottom side): REC1-chip in JTAG-chain

1-2 (default)* → REC1-chip in JTAG-chain.

2-3 → REC1-chip **not** in JTAG-chain.

* REC1-chip should be always in JTAG-chain, because TMS-line could not be disabled – no jumper in TMS-line for REC1-chip.

JP49 (SMD, bottom side): 1st PROM of REC1-chip in JTAG-chain

1-2 (default) → in JTAG-chain.

2-3 → **not** in JTAG-chain.

JP50 (SMD, bottom side): 2nd PROM of REC1-chip in JTAG-chain

1-2 (default) → in JTAG-chain.

2-3 → **not** in JTAG-chain.

JP51 (SMD, bottom side): 3rd PROM of REC1-chip in JTAG-chain

1-2 (default) → in JTAG-chain.

2-3 → **not** in JTAG-chain.

JP52 (SMD, bottom side): 4th PROM of REC1-chip in JTAG-chain

1-2 (default) → in JTAG-chain.

2-3 → **not** in JTAG-chain.

JP53 (SMD, bottom side): 1st PROM of REC2-chip in JTAG-chain

1-2 (default) → in JTAG-chain.

2-3 → **not** in JTAG-chain.

JP54 (SMD, bottom side): 2nd PROM of REC2-chip in JTAG-chain
1-2 (default)→ in JTAG-chain.
2-3→ not in JTAG-chain.

JP55 (SMD, bottom side): 3rd PROM of REC2-chip in JTAG-chain
1-2 (default)→ in JTAG-chain.
2-3→ not in JTAG-chain.

JP56 (SMD, bottom side): 4th PROM of REC2-chip in JTAG-chain
1-2 (default)→ in JTAG-chain.
2-3→ not in JTAG-chain.

JP57 (SMD, bottom side): REC2-chip in JTAG-chain
1-2 (default)*→ REC2-chip in JTAG-chain.
2-3 → REC2-chip **not** in JTAG-chain.

* REC2-chip should be always in JTAG-chain, because TMS-line could not be disabled – no jumper in TMS-line for REC2-chip.

JP58 (SMD, bottom side): REC3-chip in JTAG-chain
1-2 (default)*→ REC3-chip in JTAG-chain.
2-3 → REC3-chip **not** in JTAG-chain.

* REC3-chip should be always in JTAG-chain, because TMS-line could not be disabled – no jumper in TMS-line for REC3-chip.

JP59 (SMD, bottom side): 1st PROM of REC3-chip in JTAG-chain
1-2 (default)→ in JTAG-chain.
2-3→ not in JTAG-chain.

JP60 (SMD, bottom side): 2nd PROM of REC3-chip in JTAG-chain
1-2 (default)→ in JTAG-chain.
2-3→ not in JTAG-chain.

JP61 (SMD, bottom side): 3rd PROM of REC3-chip in JTAG-chain
1-2 (default)→ in JTAG-chain.
2-3→ not in JTAG-chain.

JP62 (SMD, bottom side): 4th PROM of REC3-chip in JTAG-chain
1-2 (default)→ in JTAG-chain.
2-3→ not in JTAG-chain.

JP63 (SMD, top side): BIASV for IC32
(default)→ 0Ω inserted.

JP64 (SMD, top side): V_DONE_COND1
(default)→ 0Ω inserted.

JP65 (SMD, top side): BIASV for IC33
(default)→ 0Ω inserted.

JP66 (SMD, top side): V_DONE_COND2
(default)→ 0Ω inserted.

JP67 (SMD, top side): “emergency-jumper” for PORSEL of IC10
(default)→ nothing inserted.

JP68 (SMD, top side): “emergency-jumper” for PORSEL of IC9
(default)→ nothing inserted.

JP69 (SMD, top side): “emergency-jumper” for NSYSRES_COND
(default)→ nothing inserted.

JP70 (SMD, top side): selection of CLK_TO_PLL
1-2 → oscillator-clock (CLK_OSC) selected.
2-3 → clock from backplane (CLK_TIM) selected.

JP71 (SMD, top side): “emergency-jumper” for NSYSRES_REC
(default)→ nothing inserted.

JP72, JP73, JP74 and JP75 (SMD, bottom side): jumper CARD_NR
(default)→ setting as CARD_NR.

JP76, JP77, JP78 and JP79 (SMD, bottom side): not used
(default)→ nothing inserted.

JP80 (SMD, bottom side): N_IACKIN/N_IACKOUT
ON → always on, no interrupt.

JP81 and JP82 (top side): jumper for LV2V5_VME
(default)→ solder-bridges after voltage-testing.

JP83 and JP84 (SMD, top side): SEL0 and SEL1 for CDC586
(default)→ nothing inserted.

JP85 (SMD, top side): “emergency-jumper” for OE# of IC10
(default)→ nothing inserted.

JP86 (SMD, top side): “emergency-jumper” for CE# of IC10
(default)→ nothing inserted.

JP87 (SMD, top side): “emergency-jumper” for OE# of IC9
(default)→ nothing inserted.

JP88 (SMD, top side): “emergency-jumper” for CE# of IC9
(default)→ nothing inserted.

JP89 and JP90 (SMD, bottom side): VCCO_REC2 selection
1-2 (default)→ LV1V5_XIL.
2-3→ LV3V3.

JP91 and JP92 (SMD, bottom side): VCCO_REC3 selection
1-2 (default)→ LV1V5_XIL.
2-3→ LV3V3.

JP93 see JP4.

JP94 and JP95 (SMD, bottom side): VCCO_REC1 selection
1-2 (default) → LV1V5_XIL.
2-3 → LV3V3.

X1 and X2: not used in design for jumpers.

X3-X8 (SMD, top side): jumper for SCANPSC
(default) → nothing inserted.

X9 (SMD, top side): V_SEL_CABLES
1-2 (default) → 0Ω inserted (V_SEL_CABLES to VME-chip).

X10 (SMD, top side): V_SEL_BACKPL
1-2 (default) → 0Ω inserted (V_SEL_BACKPL to VME-chip).

X11: not used in design for jumpers.