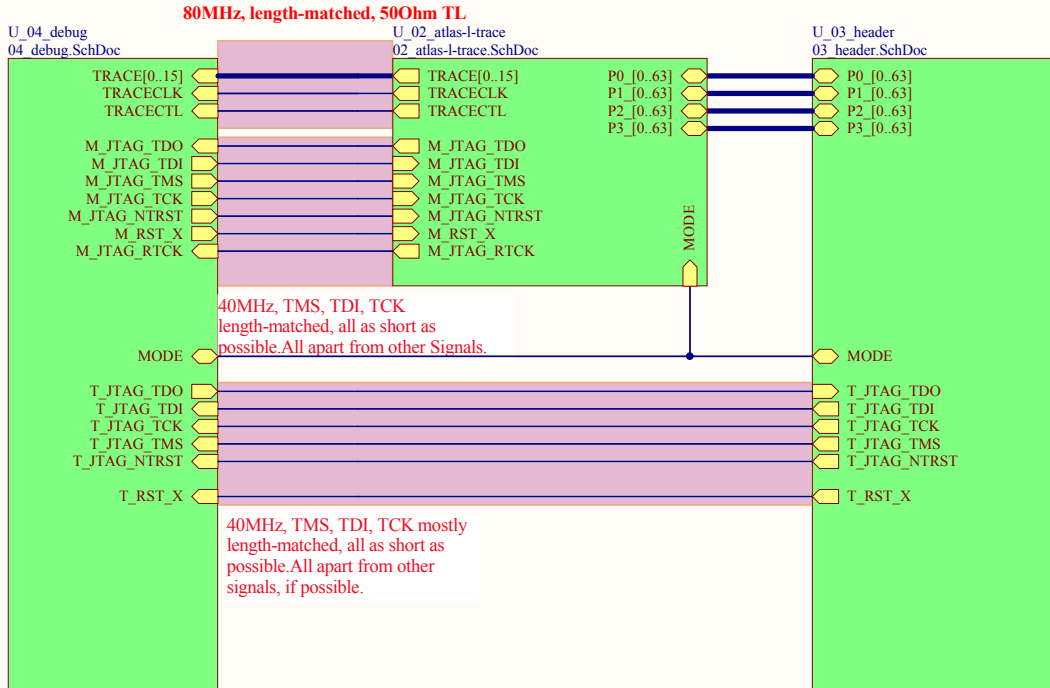


History

Doc Rev.:  
0.1:

Changes:  
- initial version derived from EMA-MB9DF120-001



```

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*****/

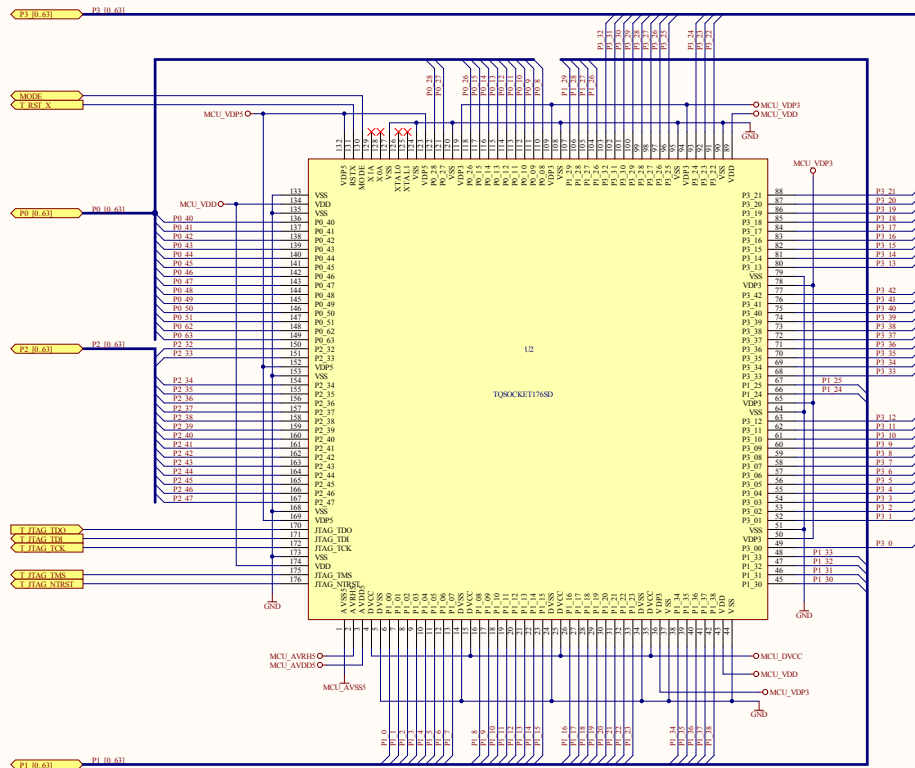
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Product:	<b>EMA-MB9DF125-001</b>	
Sheet:	1 of 4	Doc Revision: V0.1
Drawn by:	Michael Köhler	HW Revision: V1.0
File:	01_overview.SchDoc	Date: 5/16/2012

Fujitsu Semiconductor  
Europe GmbH  
<http://mcu.emea.fujitsu.com>  
[microcontroller\\_info@de.fujitsu.com](mailto:microcontroller_info@de.fujitsu.com)



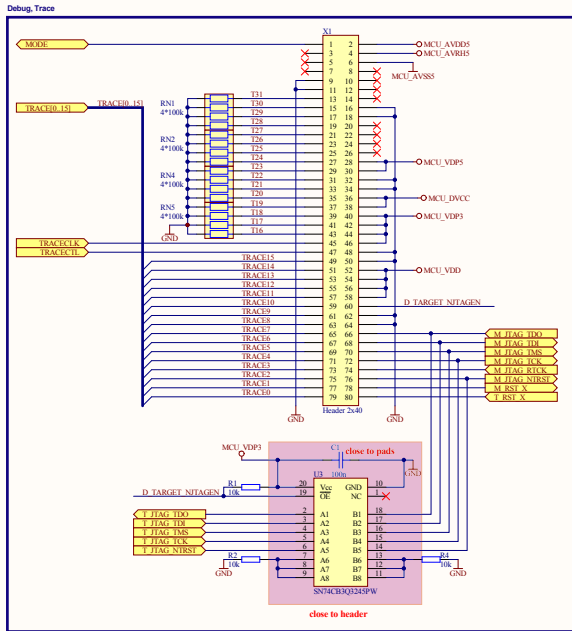


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*****/

```

All parts in brackets [] are not soldered

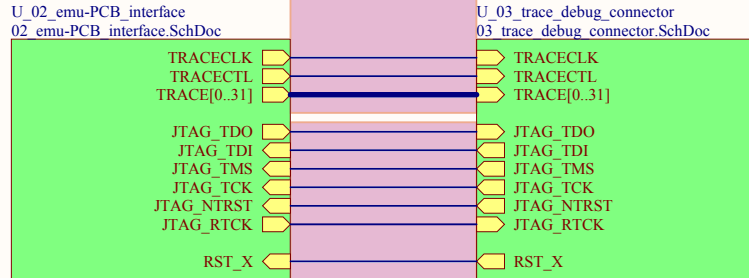


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/* (V1.3) */
/*****/

```

80MHz, length-matched, 50Ohm TL



40MHz, TMS, TDI, TCK length-matched, all as short as possible. All apart from other Signals. Keep stubs as short as possible for the upper 4 signals.

History

- Doc Rev.: Changes:
- 0.2: initial Version for quotes.
  - 0.3: added 100nF to voltage-supervisor, entered values for R9..14 (DCDC converter, voltage supervisor).
  - 0.4: compiled, resolved errors/warnings.
  - 0.5: new MODE-signal from emu-PCB tied to jumper via 100k.
  - 0.6: Reset-Supervisor: Part-No. was incomplete, completed to "TFS3106K33DBV"
  - 0.7: Trace-connector hdr/rec swapped (wrong pin-numbering)
  - 0.8: All jumpers set to 2mm pitch (some were 2.54mm)  
GND connection of C18+C22 close to U2 corrected  
JP10,JP15,JP16 changed to MCU\_VDP3/MCU\_VDP5
  - 0.9: Minor corrections to part-numbers/comments according to new BOM.
  - 0.10: !Trace-Connector pinning changed!: TRACE[31..16] swapped with TRACECTL/-CLK (same ordering in group)
  - 0.11: !Trace-Connector pinning changed!: swapped TRACECTL and TRACECLK  
Jumper added to reset-controller to disable trace-generated resets.
- Changes due to VDP3 being disableable (new information):
- change net to 3V3 at:
    - reset-controller.Vdd (from MCU\_VDP3)
    - bus-switch.Vdd (from MCU\_VDP3)
    - LED-VDD, LED-RST supply (from MCU\_VDP3)
    - DEBUG\_VDD (fixed; Jumper obsolete => also renamed)
    - Trace-Jumpers (replaces MCU\_VDP5(!))
  - add diode from VDP5 (at jumper) to DCDC-converter (supply from target for JTAG-interface and 2 LEDs)
  - changed op-mode of DCDC to auto-powersave (MODE-pin from Vin to Gnd)
- 0.12: - D3 moved to C19 (same net, but more clearly the power-input)
  - JP10 renumbered to JP18 (a different JP10 was deleted)
  - 0.13: - D3 removed, added JP19 to select between VDP5 (target) and wall-cube)
- HW-Rev. >1.0:
- V0.14: - JTAG\_RTCK from debug/trace-connector pin 74 through U1 (switch) to RTCK-jumper (replaces direct TCK-feedback).
  - JTAG: removed pull-jumpers and associated parts (obsolete).
  - TRACE-Connectors: Supply-Jumpers removed, VREF/VSUPPLY tied to 3V3

```

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```

	Product: <b>EMA-FCR4-TRACE-001</b>		Fujitsu Semiconductor Europe GmbH <a href="http://mcu.emea.fujitsu.com">http://mcu.emea.fujitsu.com</a> microcontroller_info@de.fujitsu.com
	Sheet: 1 of 3	Doc Revision: V0.14	
	Drawn by: Olaf Behrendt	HW Revision: Rev1.1	
	Date: 08.06.2011		
File: 01_overview.SchDoc			

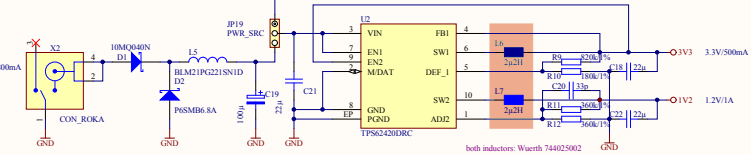
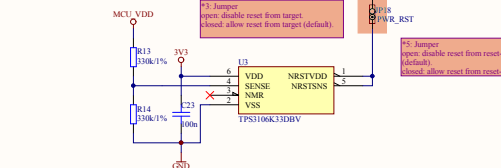
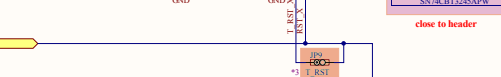
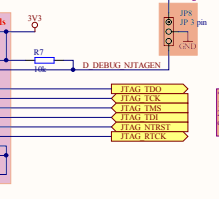
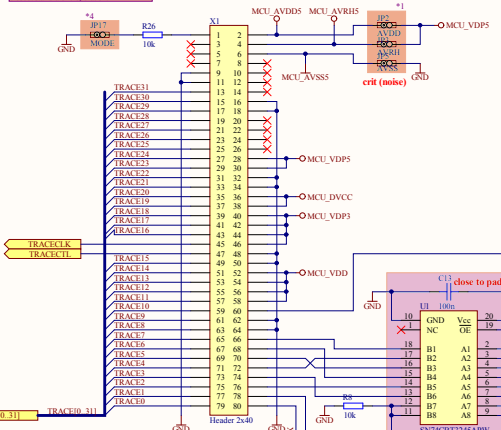
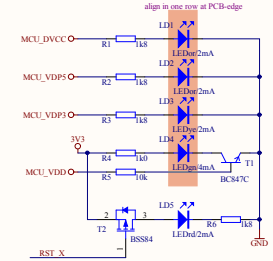
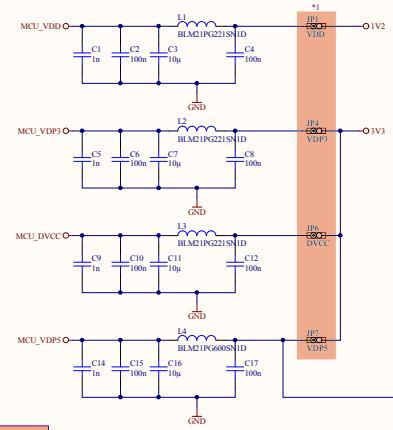
**F1 Jumper**  
open: target board connected (default).  
closed: stand-alone operation.

**F1 Jumper**  
open: Power from target-PCB (default).  
closed: Power from trace-PCB.  
must all be closed (mode is being used  
stand-alone. Jumper VDD can be closed alone  
if trace-PCB has its VDD bridge removed  
(Vdd from trace, other power from target).  
Layout hints: use 2mm jumpers.

**F2 Jumper**  
1-2: debug from target (trace disabled).  
2-3: debug from trace-PCB (default).  
open: disables both FTMG-pins.

**F3 Jumper**  
open: disable reset from target.  
closed: allow reset from target (default).

**F5 Jumper**  
open: disable reset from reset-controller  
(default).  
closed: allow reset from reset-controller.



```

*****
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```

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	Product: <b>EMA-FCR4-TRACE-001</b>	Fujitsu Semiconductor Europe GmbH
	Sheet: 2 of 3	Doc Revision: V0.14
	Drawn by: Olof Bickelmeid	HW Revision: Rev.1
	Date: 08.06.2011	File: 02_ema-pcb_interface_sch03c

