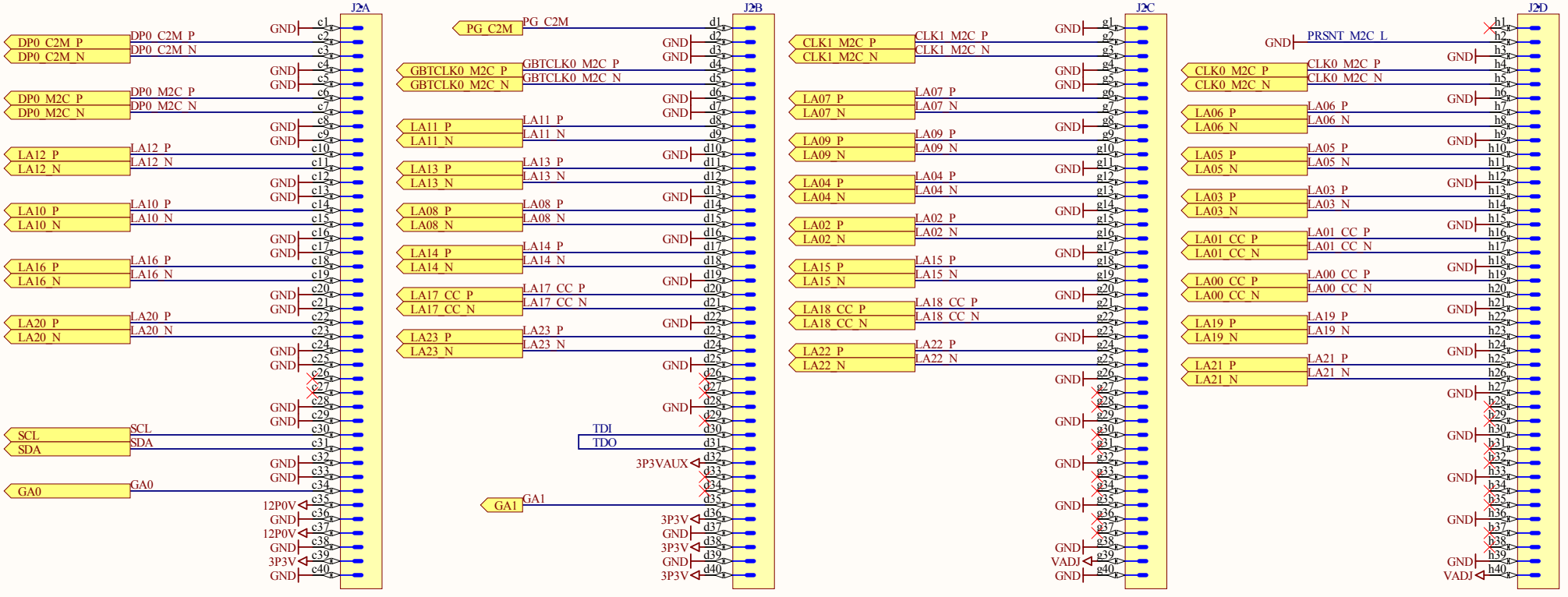
Blue comment area = directives for layout

Yellow comment area = general comment on design



Stand-off near FMC connector must be connected to FRONT_PANEL1 and FRONT_PANEL2

LA00* to LA23* are swappable

FTG1 FTG2 FTG3 FTG6 FTG5 FTG4

Project/Equipment: FmcDIO16chTTLa

Document: BE-CO-HT

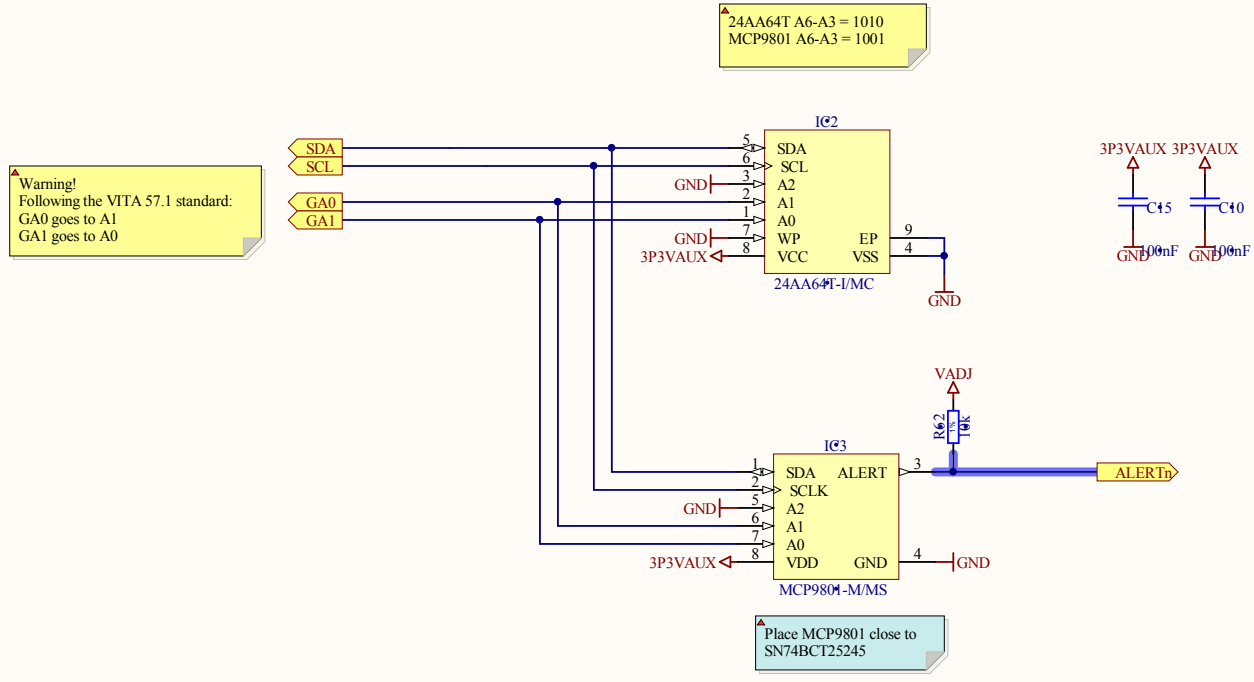
FMC low-pin count connector
Connection with FMC carrier

Designer	mcattin	
Drawn by	mcattin	11/04/2009
Check by	vanderby	11/26/2009
Last Mod.	mcattin	2014-08-20
File	fmc_digital_io_fmc_connector.SchDoc	
Print Date	2014-08-20 12:52:48	Sheet 1 of 5

European Organization for Nuclear Research
CH-1211 Genève 23 - Switzerland

EDA-02064-V1-0

Size: A4 Rev: -



Project/Equipment: FmcDIO16chTTLa

Document

BE-CO-HT

FMC IPMI
EEPROM, temperature sensor

Designer	mcattin	
Drawn by	mcattin	11/04/2009
Check by	vanderby	11/26/2009
Last Mod.	mcattin	2014-08-20
File	fmc_digital_io_ipmi.SchDoc	
Print Date	2014-08-20 12:52:48	Sheet 2 of 5

European Organization for Nuclear Research
CH-1211 Genève 23 - Switzerland

EDA-02064-V1-0

Size: A4 | Rev: -

MD5RP50F0L3 or 10250-55H3PC or 10250-55H3PL

CON2

5P0V

LED1
LEDRA3010-RW120

R4 750

LA02_P

IC7A
SN74HCT14D

R21 10k

GND

This LED indicates that the external patch is properly connected.
The patch must connect pin 18 and 19 together.

U_fmc_digital_io_fmc_connector
fmc_digital_io_fmc_connector.SchDoc

PATCH_CONn

LA02_P

IO_VADJ_0 … IO_VADJ_31

OE1 OE2 OE3 OE4

DIR1 DIR2 DIR3 DIR4

OEn1 OEn2 OEn3 OEn4

ALERTn

SDA SCL GA0 GA1 PG_C2M

DP0_C2M_P DP0_C2M_N GBTCLK0_M2C_P GBTCLK0_M2C_N

CLK0_M2C_P CLK0_M2C_N DP0_M2C_P DP0_M2C_N

CLK1_M2C_P CLK1_M2C_N

LA00_CC_P … LA23_N

5P0V

R22 10k

IC7B
SN74HCT14D

10k R23

PATCH_CONn

LED2
LEDRA3010-BW120

R24 750

GND

FRONT_PANEL2

FRONT_PANEL1

B3 B4 B2 B1

22nF C2

22nF C7

2000V

R25 1M

R2 1M

GND

U_fmc_digital_io_power_supplies
fmc_digital_io_power_supplies.SchDoc

U_fmc_digital_io_ipmi
fmc_digital_io_ipmi.SchDoc

SDA SCL GA0 GA1 ALERTn

IC7C IC7D IC7E IC7F
SN74HCT14D

R26 10k R27 10k R28 10k R61 10k

VCC 5P0V GND

U_fmc_digital_io_buffers
fmc_digital_io_buffers.SchDoc

DIR1 DIR2 OE_N_1 OE_N_2 IO_VADJ_[15..0] DIO_[15..0]

IO_VADJ_[31..16] DIO_[31..16]

U_fmc_digital_io_buffers
fmc_digital_io_buffers.SchDoc

OEn1 OEn2 IO_VADJ_[15..0] DIO_[15..0]

Project/Equipment	FmcDIO16chTTLa
Document	
Designer	mcattin
Drawn by	mcattin 11/04/2009
Check.by	vanderby 11/26/2009
Last Mod.	mcattin 2014-08-20
File	fmc_digital_io_front_panel.SchDoc
Print Date	2014-08-20 12:52:48 Sheet 3 of 5

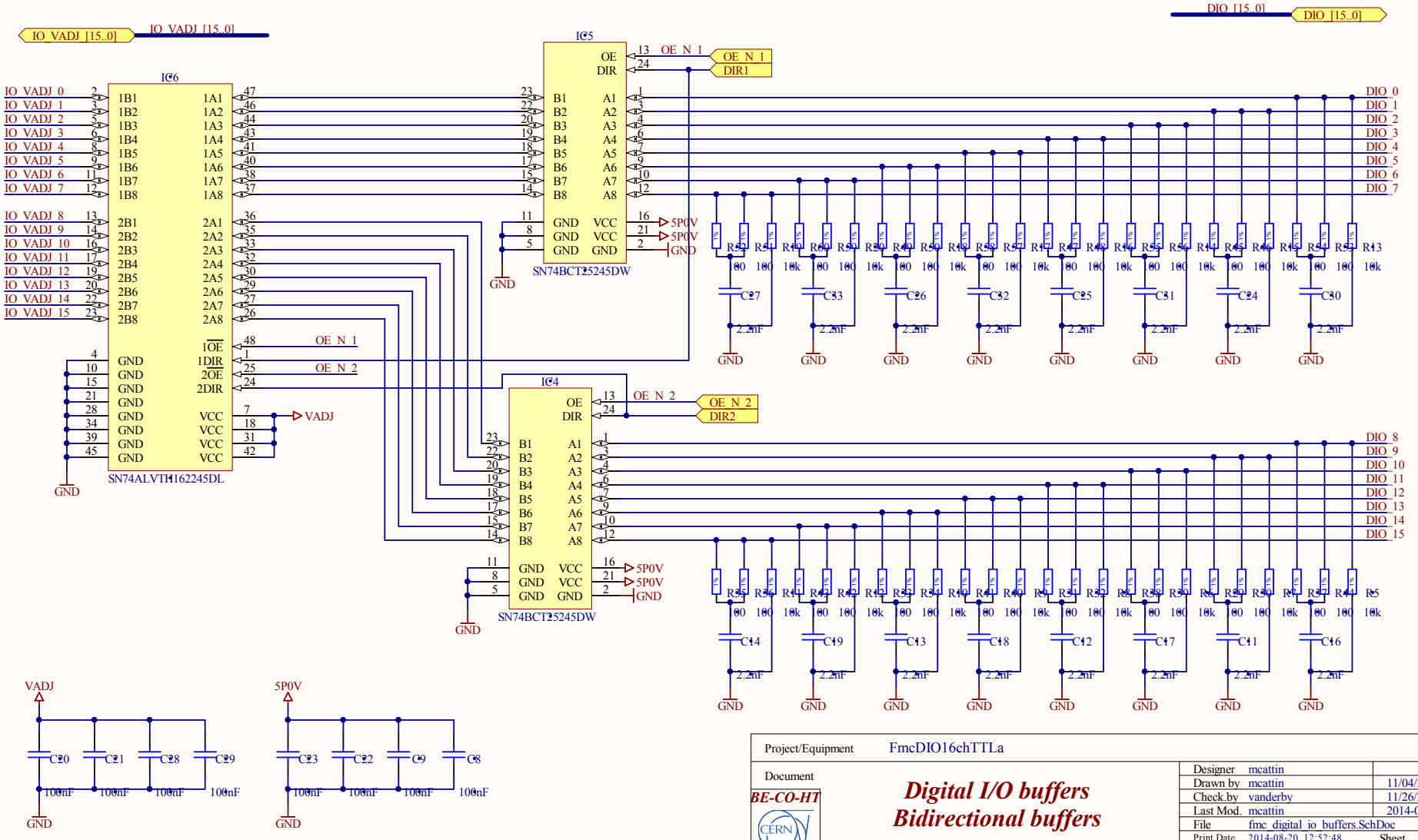
BE-CO-HT

FMC front panel External connections

European Organization for Nuclear Research
CH-1211 Genève 23 - Switzerland

EDA-02064-V1-0

Size A4 Rev -



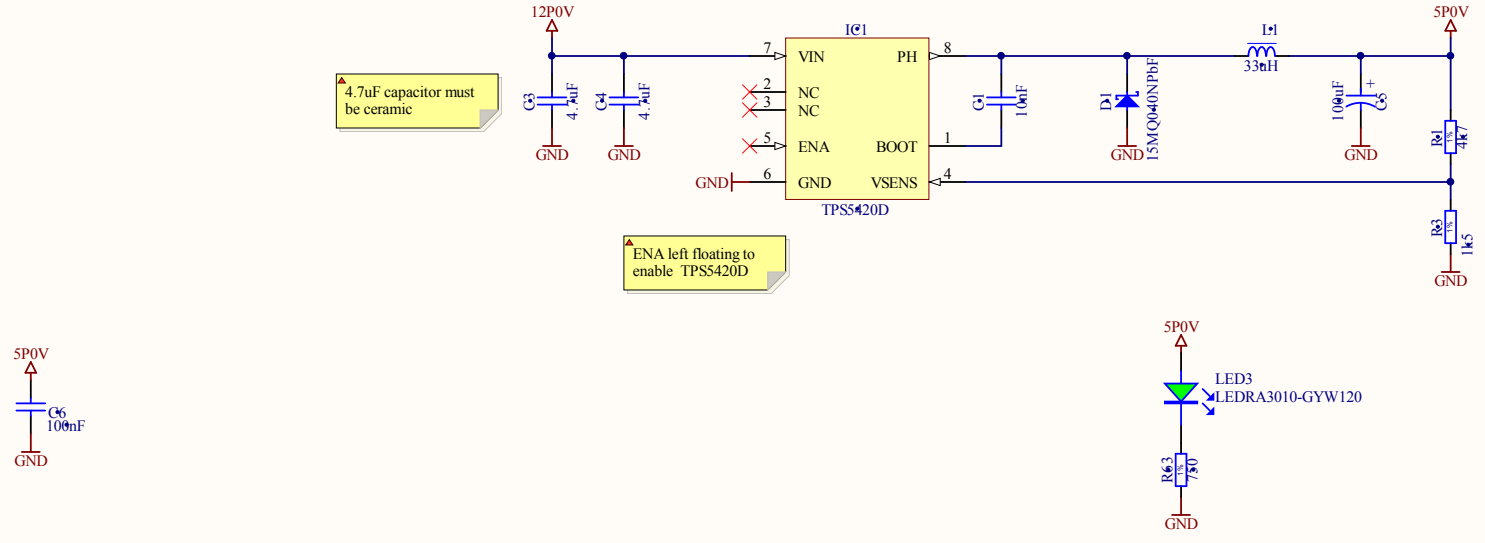
Project/Equipment	FmcDIO16chTTLa
Document	**Digital I/O buffers** **Bidirectional buffers**
Designer	mcattin
Drawn by	mcattin 11/04/2009
Check by	vanderby 11/26/2009
Last Mod.	mcattin 2014-08-20
File	fmc_digital_io_buffers.SchDoc
Print Date	2014-08-20 12:52:48
Sheet	4 of 5

BE-CO-HT

European Organization for Nuclear Research
CH-1211 Genève 23 - Switzerland

EDA-02064-V1-0

Size A4 | Rev -



Project/Equipment: FmcDIO16chTTLa

Document: **FMC power supplies**

BE-CO-HT

Designer	mcattin	
Drawn by	mcattin	11/10/2009
Check by	vanderby	11/26/2009
Last Mod.	mcattin	2014-08-20
File	fmc_digital_io_power_supplies.SchDoc	
Print Date	2014-08-20 12:52:49	Sheet 5 of 5

European Organization for Nuclear Research
CH-1211 Genève 23 - Switzerland

EDA-02064-V1-0

Size: A4 | Rev: -