

BGV INTEGRATION

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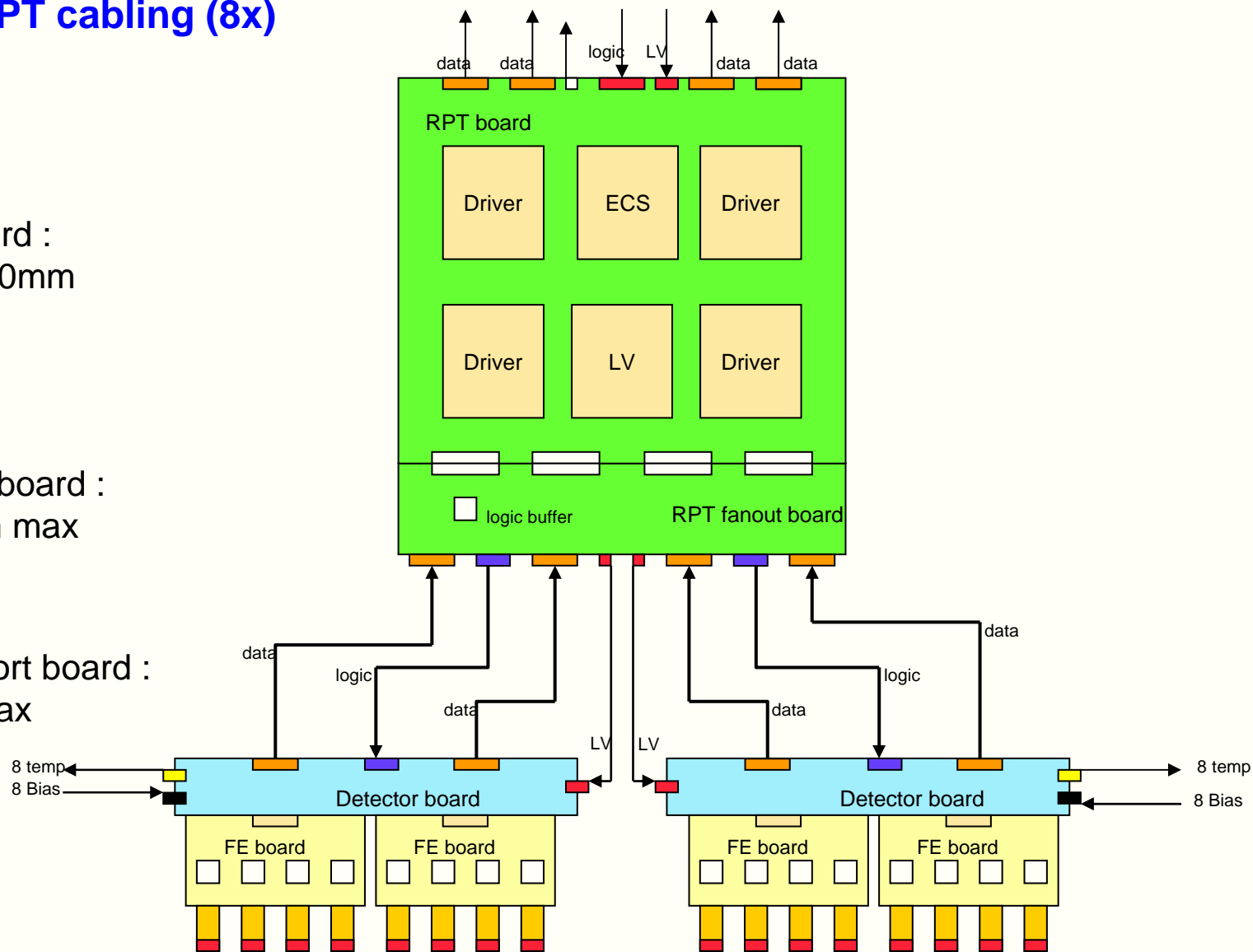
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BGV single RPT cabling (8x)

RPT board :
320 x 320mm

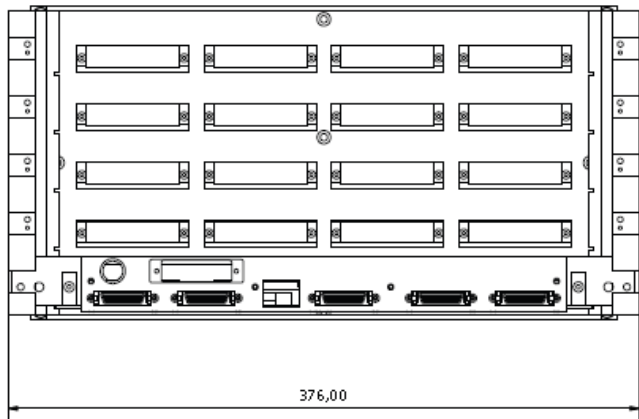
RPT fanout board :
320 x 70mm max

Detector support board :
120x 70mm max

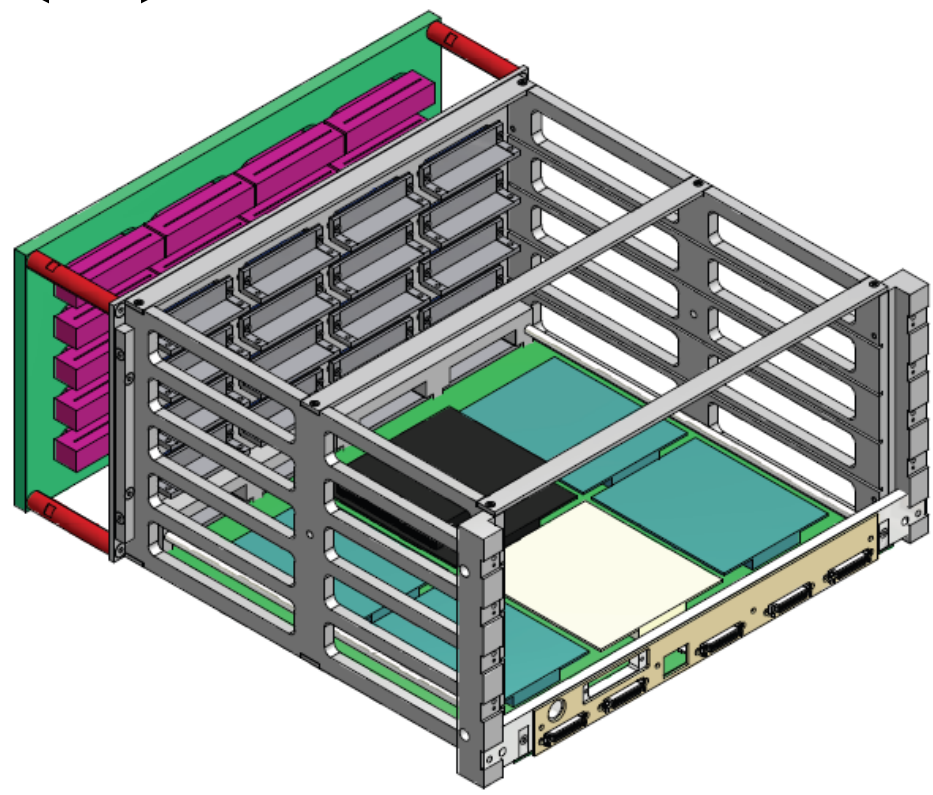
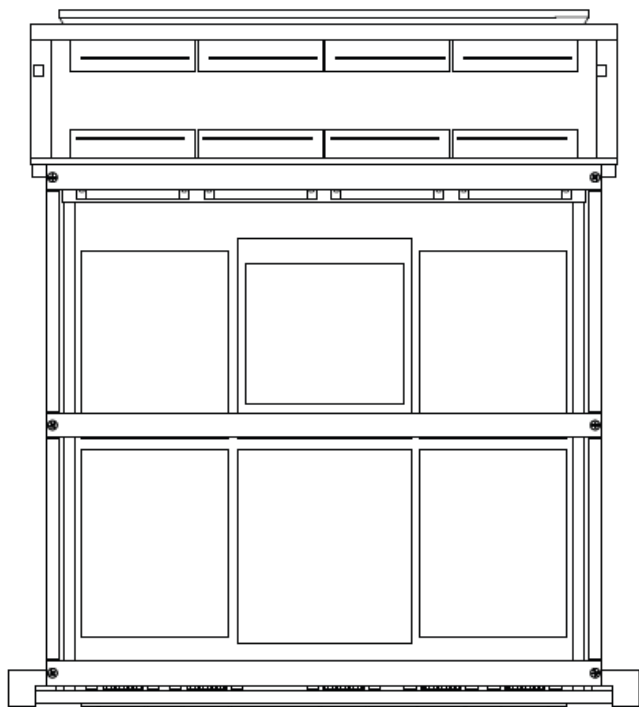
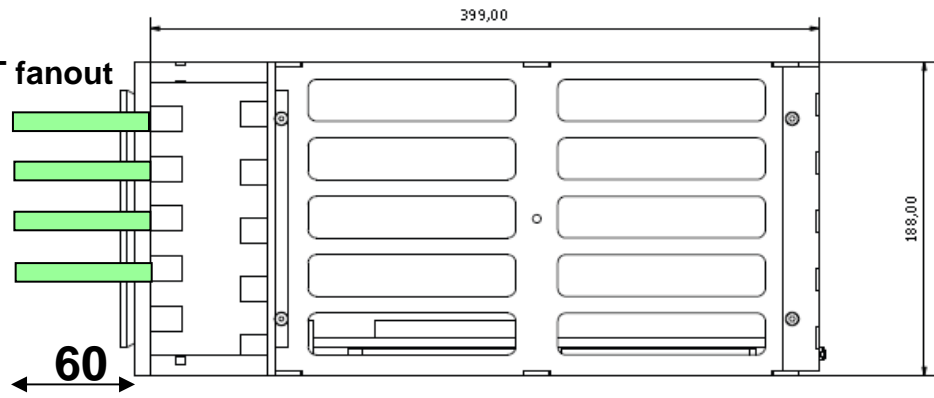


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RPT crate : 376 x 188 x 459mm



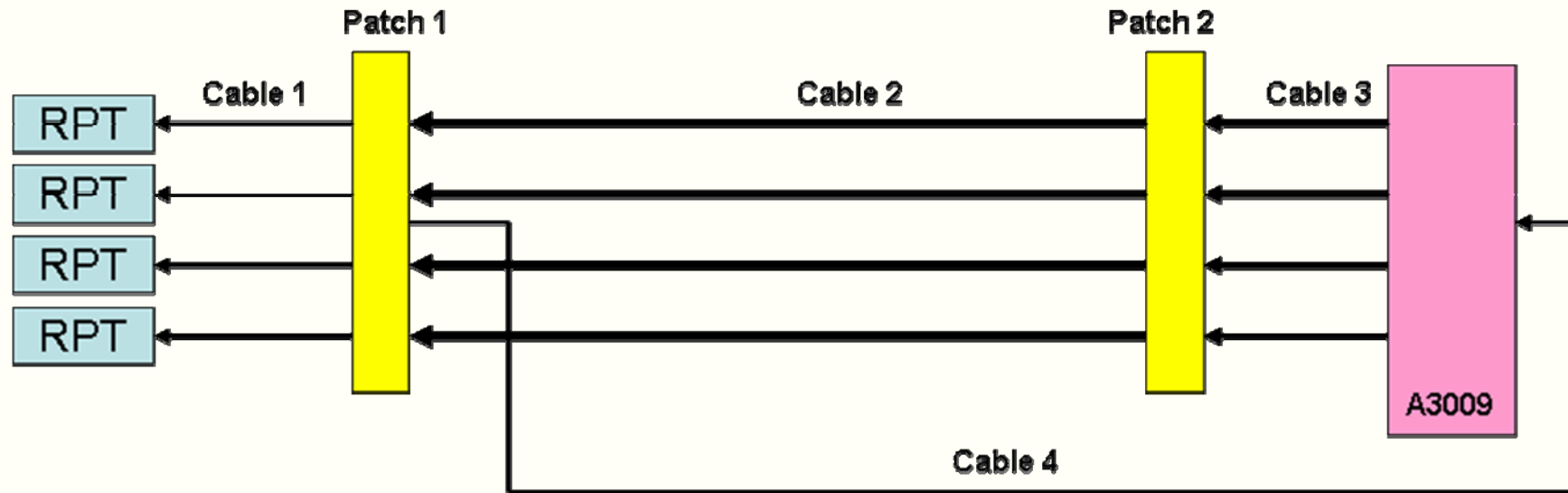
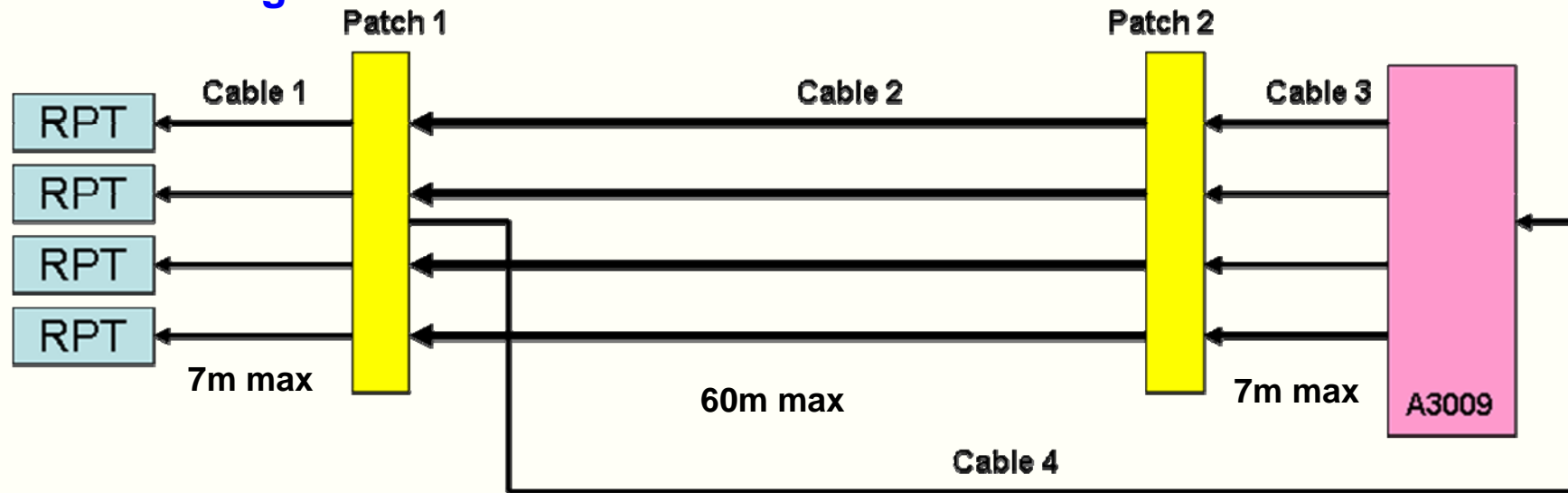
4 RPT fanout



Όνομα πα	Υπόγραφα	Αρραβώ πα	Διεύ	Ημερ
0077 In				31.10.2013
DSCU / DATE 04.1.1				Παράρτ

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BGV low voltage :



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BGV LV cables :

Cable 1 : between RPT board and patch 1 in tunnel.

Max. length : 7m
Type : NE26 SCEM : 04.21.52.140.4
13x2 shielded twisted pair 0,5mm²
External diameter 16,5 mm

Number of cables needed : 8

Connection :

- On RPT side : DSUB 25 pin female
- On patch side : screw terminal

Cable 3 : from patch 2 in LV rack to LV supply module

Max. length : 7 m
Type : MFX8L SCEM : 04.21.01.608.8
Signal 8 x 0,75mm²
External diameter 11,2 mm

Number of cables needed: 8\$

Connection :

- Screw terminal on patch 2
- Connector on LV module side if module needs connector, OR, screw terminal on LV module

Cable 2 : between patch 1 in tunnel and patch 2 on LV rack.

Max. length : 60m
Type : NG28 SCEM : 04.21.52.228.7
14x2 shielded twisted pair 1mm²
External diameter 20mm

Number of cable needed: 8

Connection :

- Screw terminal on both side
- Shield cable clamped to earth on both side

Cable 4 : sense line cable from patch 1 to LV module

Max. length : 60m
Type : MCA26 SCEM : 04.21.48.326.7
13 x 2 shielded twisted pair 0,22 mm²
External diameter : 11,4 mm

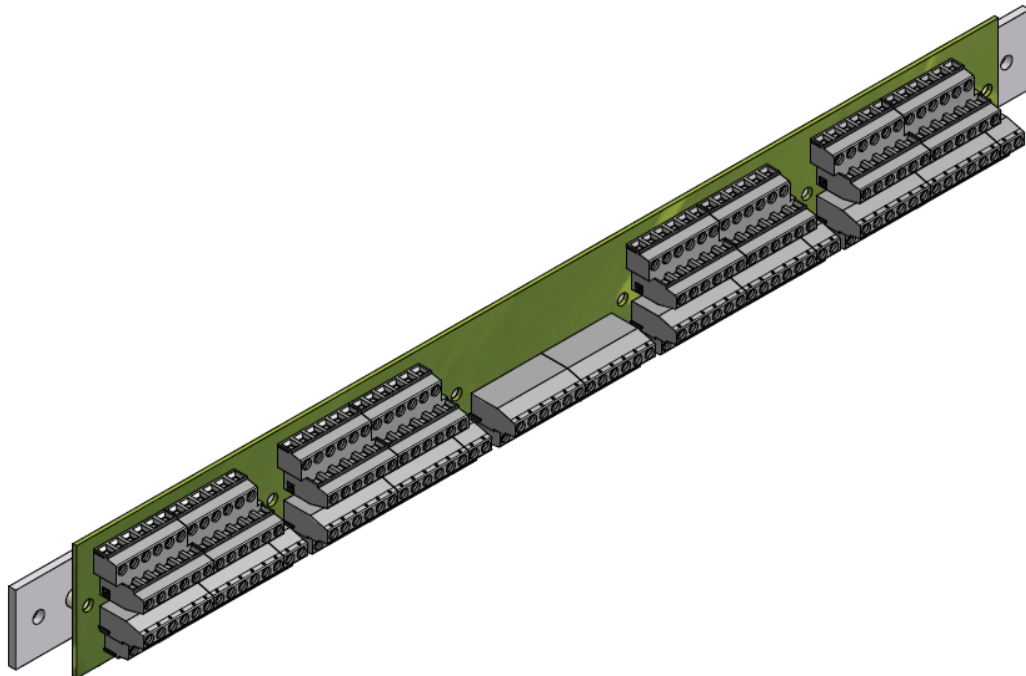
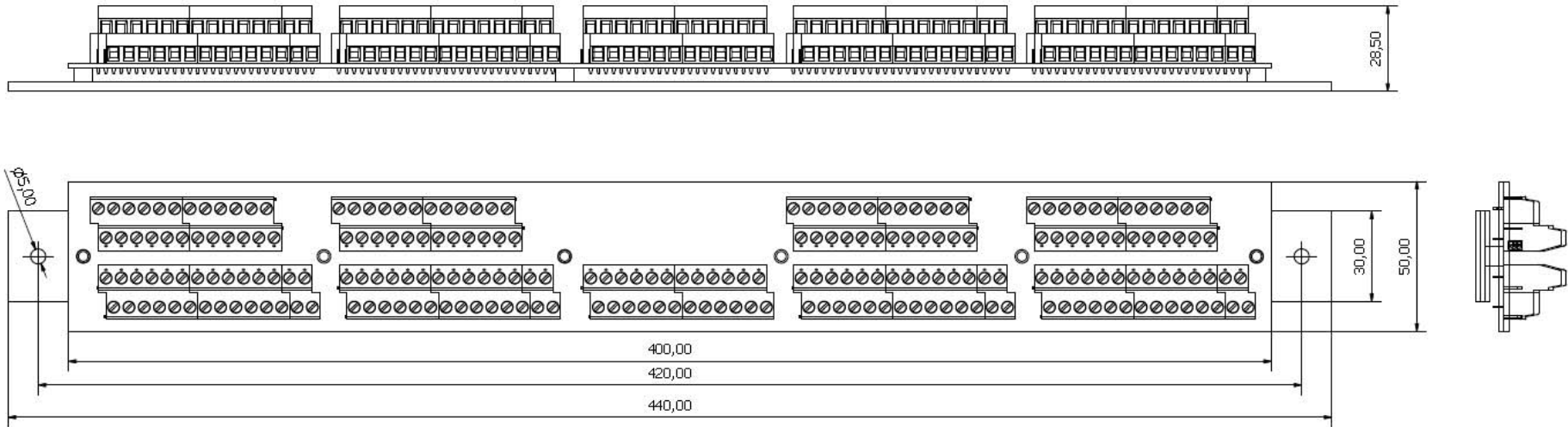
Number of cable needed : 2

Connection :

- Screw terminal on patch 1 side
- AMP connectors on LV module side

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BGV LV patch : 440 x 50 x 30mm

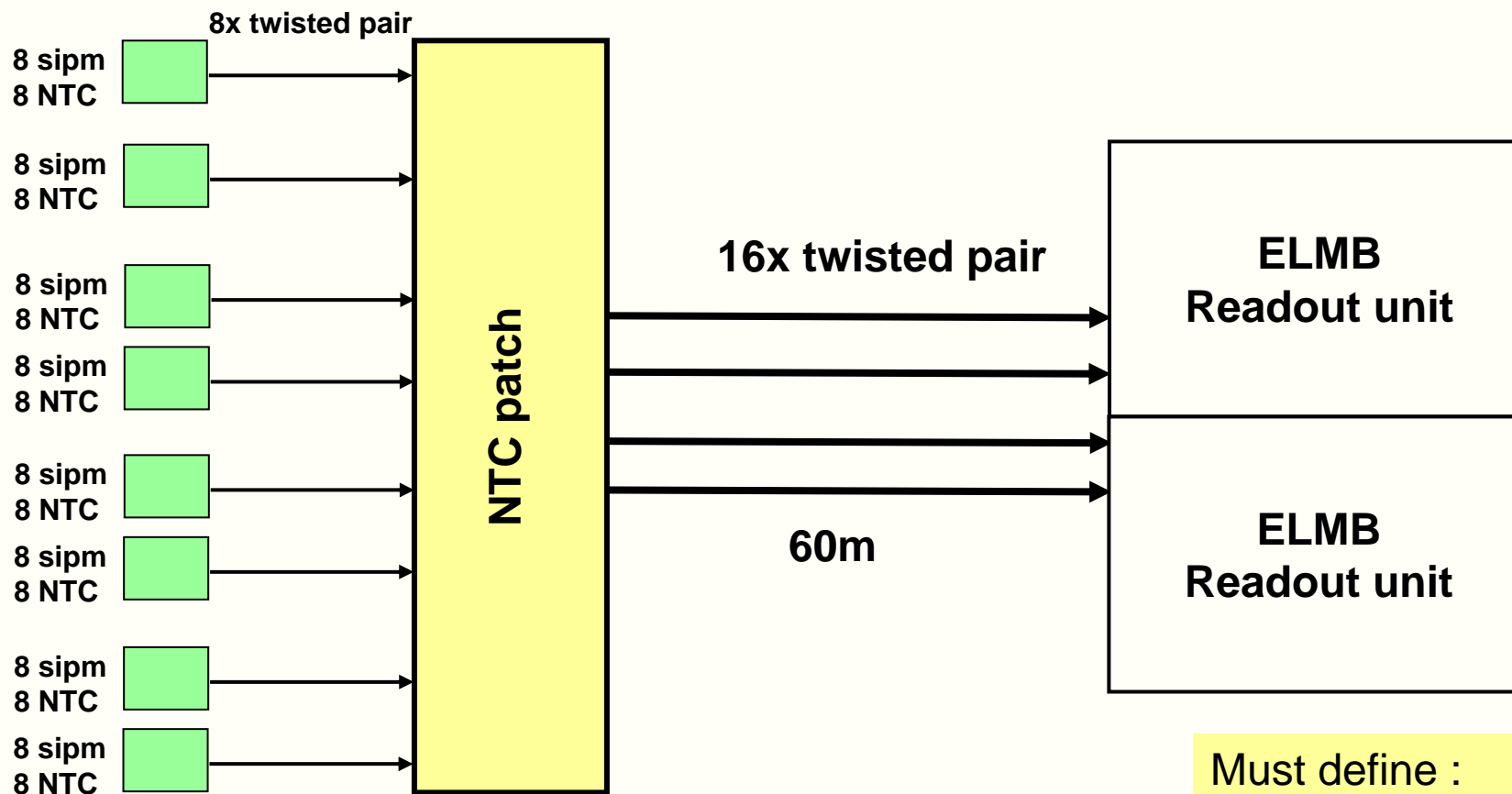


2 pcs on detector side

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BGV temperature readout :

For 1/2 BGV system

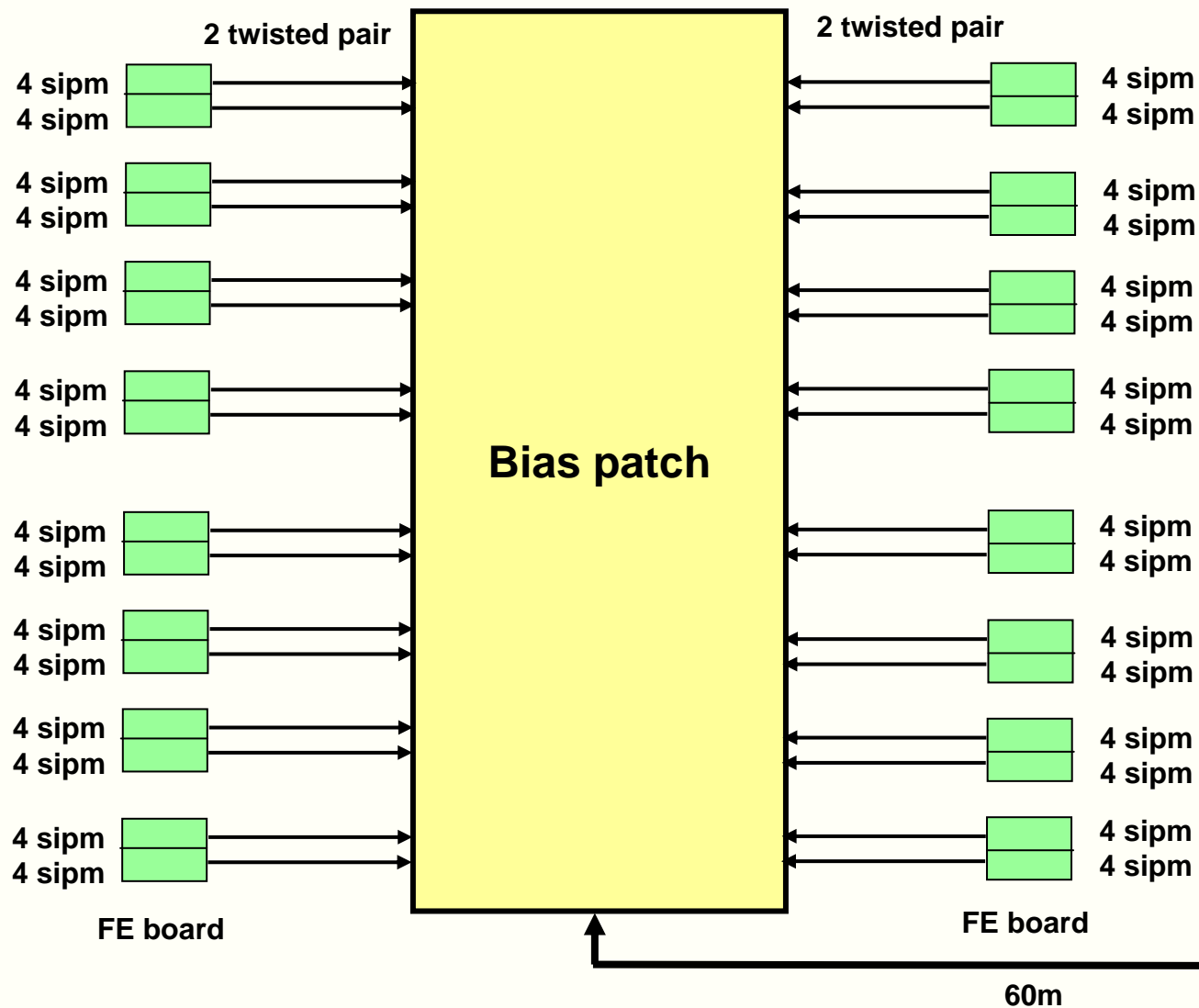


Detector support card

- Must define :
- Cables
 - Connectors
 - NTC patch layout
 - need 2 NTC patch

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BGV bias distribution :



Based on A1539 module :

- 32 channels
- 100V / 10mA
- supplies 4 SIPM per channel
- Define cables, connectors
- Define bias patch layout

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BGV panel layout : proposal

