

Installation Guide

Alcatel-Lucent 9312 Compact Smart NodeB in MBI3+

Note: For handling, securing and site preparation requirements refer to:
3BK 17417 3045 RJZZA Document.

This document only covers W-CDMA modules/cables in the installed MBI3+



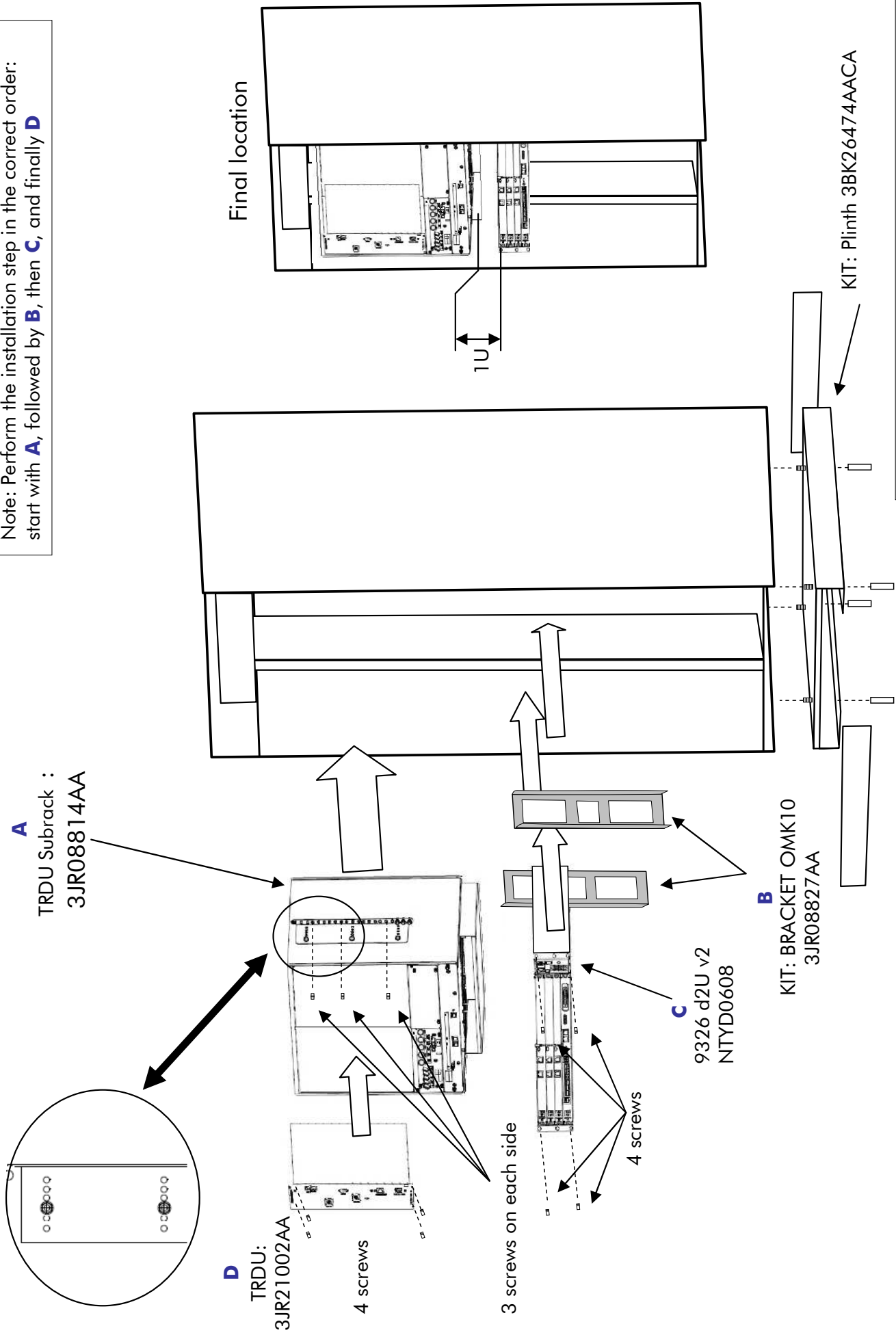
Warning: In accordance with standard practice, cables must be installed so that individual modules can be easily replaced without having to remove the cables.

| DRW Issue | Date Issued | DRW | APPD |
|-----------|---|-----|------|
| 4 | 31-03-09 | CM | |
| 1. | This is the preliminary issue of 04-6212-2.01 | | |
| 2. | Issue -2.02 after internal review | | |
| 3. | Issue -2.03 internal review and official naming | | |
| 4. | Issue-2.04: Add Plinth | | |

| | | | | | |
|----------------|--|---|--|---|--|
| System Used on | | Design Control | | Alcatel-Lucent – PROPRIETARY This document contains proprietary information of Alcatel-Lucent and is not to be disclosed or used except in accordance with applicable contracts or agreements © 2009 Alcatel-Lucent All Rights Reserved | |
| | | TIS | | | |
| ALU W-CDMA | | Installation Guide Alcatel Lucent 9312 Compact Smart NodeB in MBI3+ | | Alcatel-Lucent | |
| | | 04-6212-2.04 Preliminary | | Sheet 1 of 9 | |

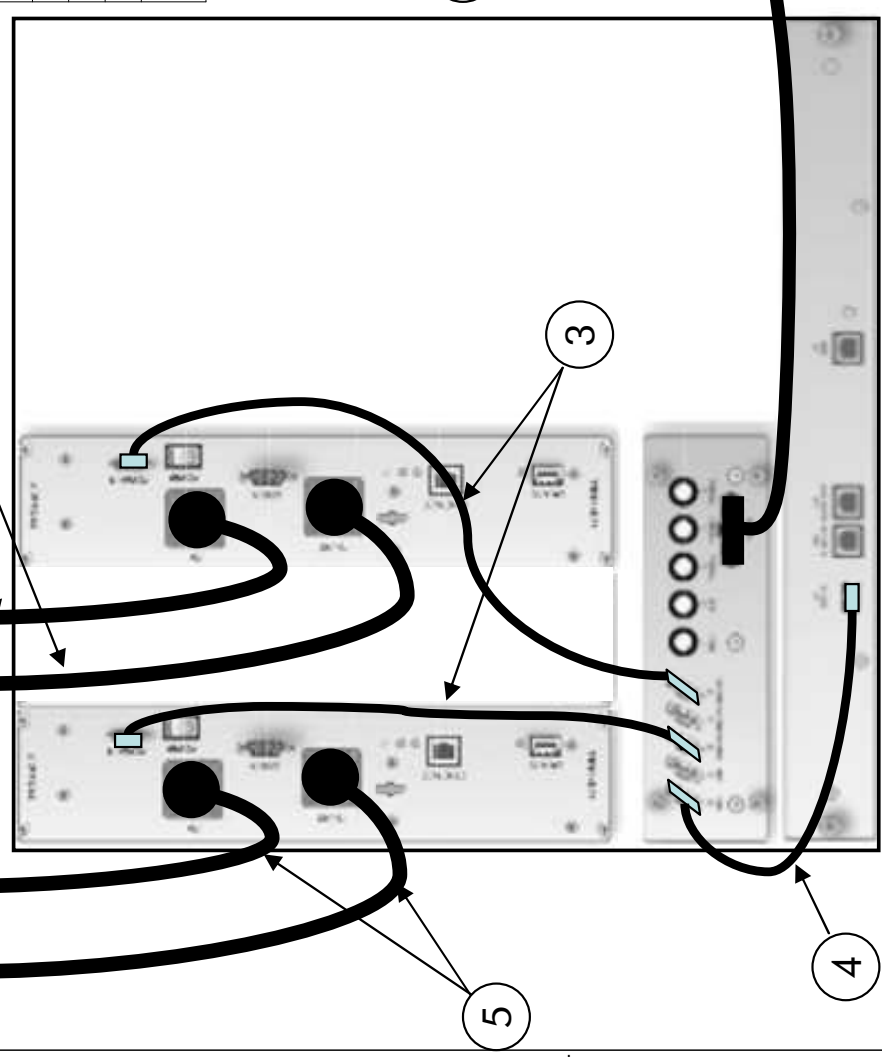
1. Mechanical Installation Without Optional Module

Note: Perform the installation step in the correct order: start with **A**, followed by **B**, then **C**, and finally **D**



2. RF and Power Cabling

Bulkhead MBI3+ Antenna



| # | Ref | Designation | Qty | Remark |
|---|--------------|------------------------------|---------|-------------------------------------|
| 1 | 3JR22066AA | DC/TRDU ICO and d2U POWER IN | 1 | Cables connected on the DC Breaker |
| 2 | 3BK27904AA | GND Cable | 1 | |
| | 3JR22065AA | DC/TRDU ICO | 1 | Only if the second TRDU ICO is used |
| | 3JR22067AA | DC/user ICO | 1 | In future User ICO |
| 3 | 3JR22039AA | TRDU power | Up to 6 | One per TRDU |
| 4 | 3JR22040AA | TRCU power | 1 | |
| 5 | 3BK07921AAAA | SOC-CS04ANX/ANT CSET Indoor | Up to 6 | 2 RF cables per Kit |

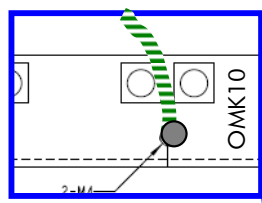
| 3JR22039AA | |
|-------------|----------------|
| TRDU ICO 1 | TRDU |
| J3 TRDU 1/4 | TRDU1 Power in |
| J3 TRDU 2/5 | TRDU2 Power in |
| J3 TRDU 3/6 | TRDU3 Power in |

| 3JR22039AA | |
|-------------|----------------|
| TRDU ICO 2 | TRDU |
| J3 TRDU 1/4 | TRDU4 Power in |
| J3 TRDU 2/5 | TRDU5 Power in |
| J3 TRDU 3/6 | TRDU6 Power in |



5

Torque wrench to 25 Nm



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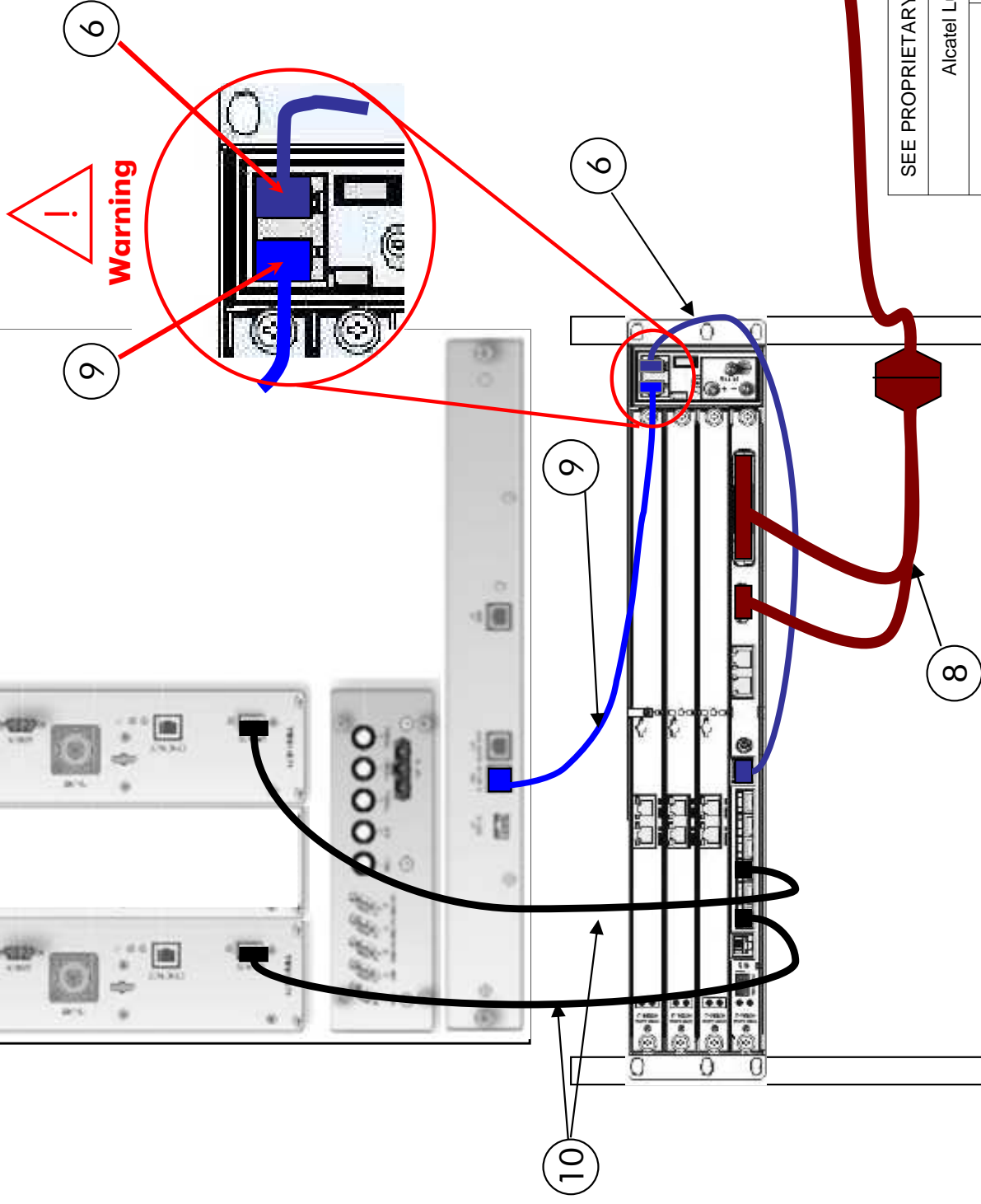
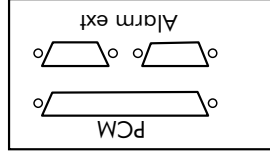
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3. PCM and Digital Cabling

| # | Ref | Designation | Qty |
|----|--------------|--------------------------------|---------|
| 6 | 3JR22028AC | RUC/xCCMu cable | 1 |
| 7 | 3JR22051AA | BULK IND EVO/XCCM IUB | 1 |
| 8 | 3JR22031AA | Adaptor xCCM-U IUB/Ext PCM Evo | 1 |
| 9 | 3JR22036AA | RUC/TRCU alarm cable | 1 |
| 10 | 1AB382920001 | CPRI cable | Up to 6 |

| 1AB382920001 | |
|--------------|-----------------|
| Optic 1 | TRDU 1 Data I/O |
| Optic 2 | TRDU 2 Data I/O |
| Optic 3 | TRDU 3 Data I/O |
| Optic 4 | TRDU 4 Data I/O |
| Optic 5 | TRDU 5 Data I/O |
| Optic 6 | TRDU 6 Data I/O |

Bulkhead MBI3+



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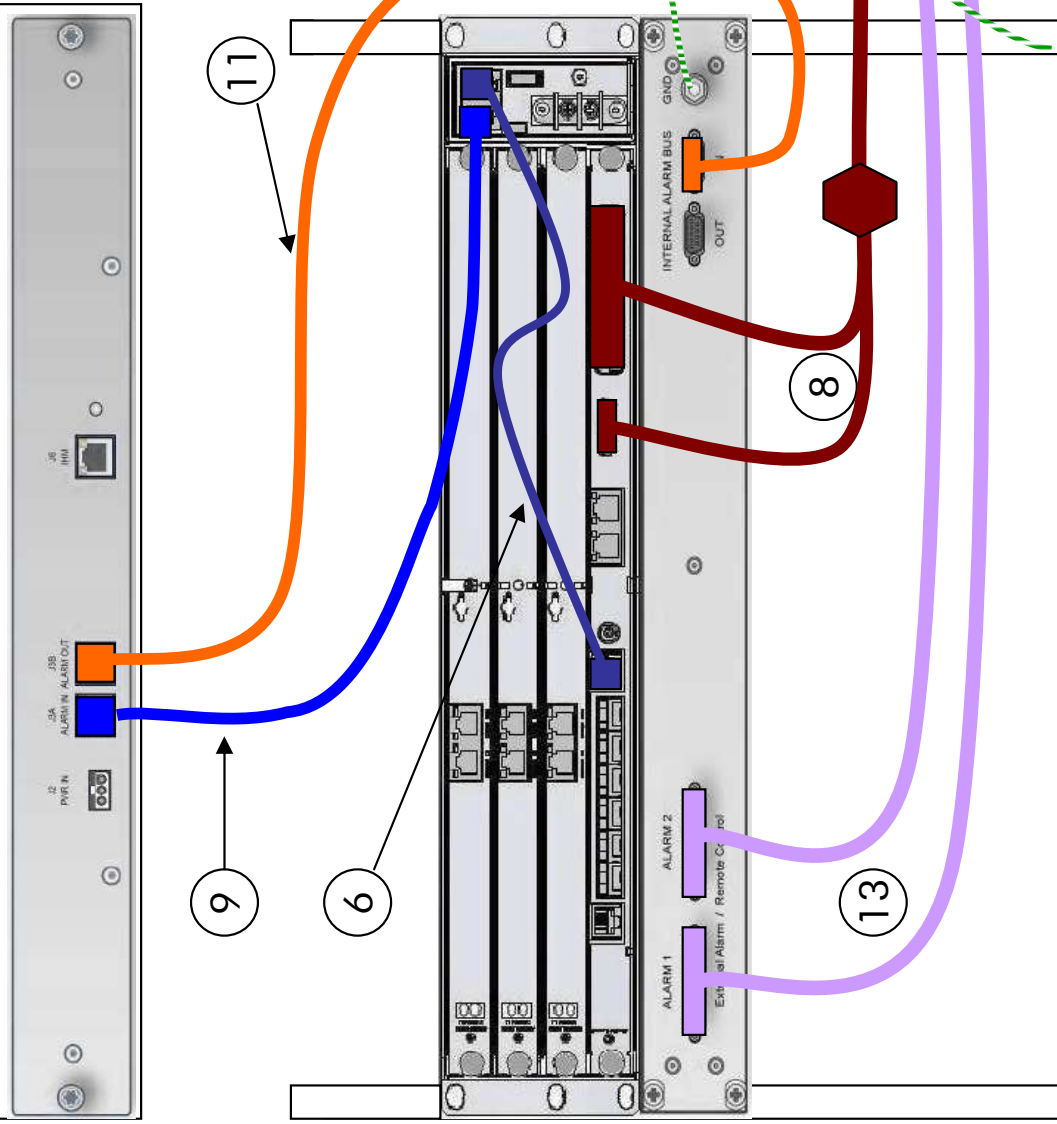
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4. Solution with Optional IEAM Module

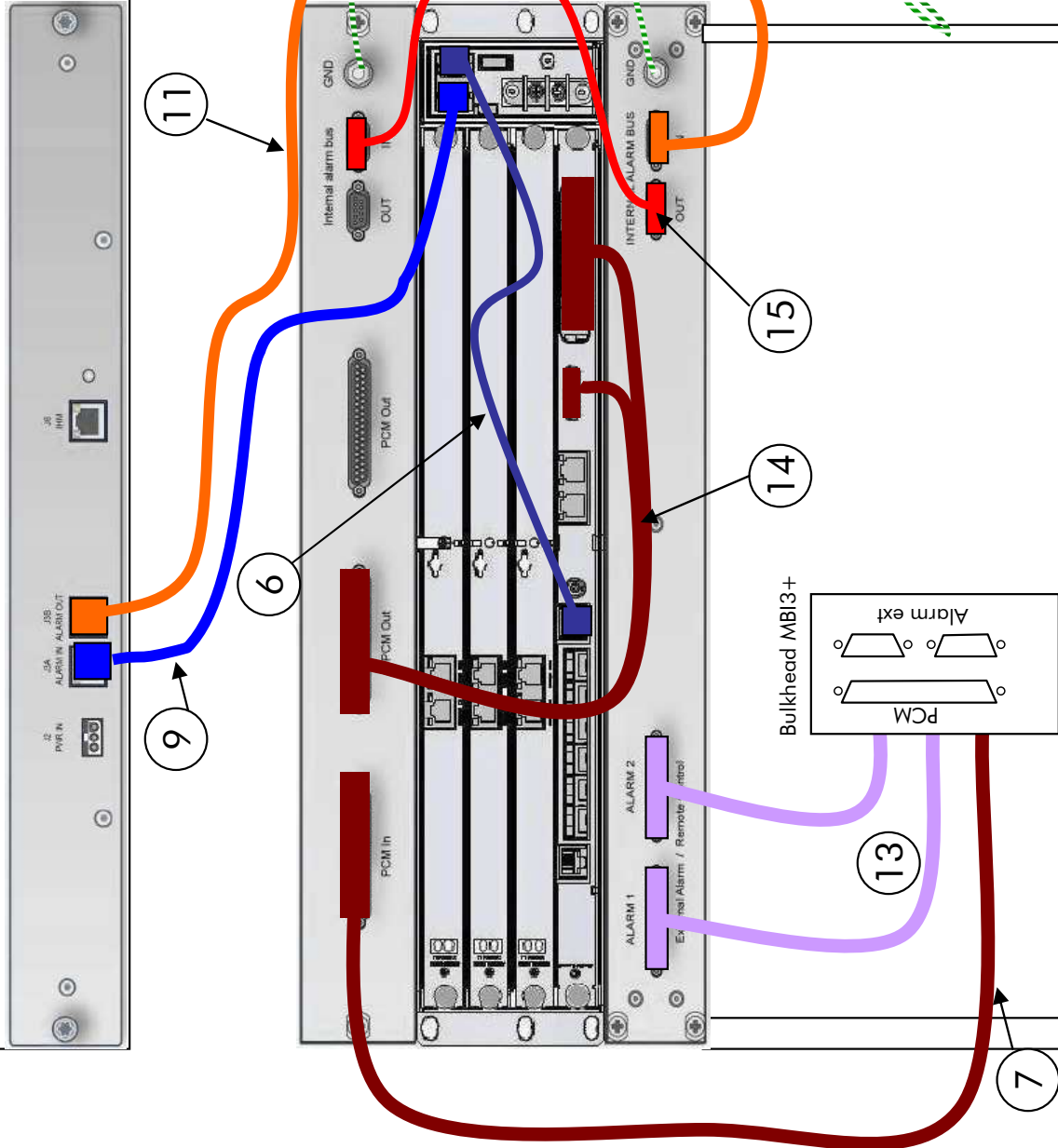
Name: Christian Moreau Object: IG-04-6212-2.04 Date: 31 march 09

| # | Ref | Designation | Qty |
|----|------------|--------------------------------|-----|
| 6 | 3JR22028AC | RUC/xCCMu cable | 1 |
| 7 | 3JR22051AA | BULK IND EVO/XCCM IUB | 1 |
| 8 | 3JR22031AA | Adaptor xCCM-U IUB/Ext PCM Evo | 1 |
| 9 | 3JR22036AA | RUC/TRCU alarm cable | 1 |
| 11 | 3JR22038AA | TRCU Alarm out/d2U | 1 |
| 12 | 3BK27904BA | GND M6 | 1 |
| 13 | 3JR22053AA | Bulk evo ind//EAM Alarm | 2 |

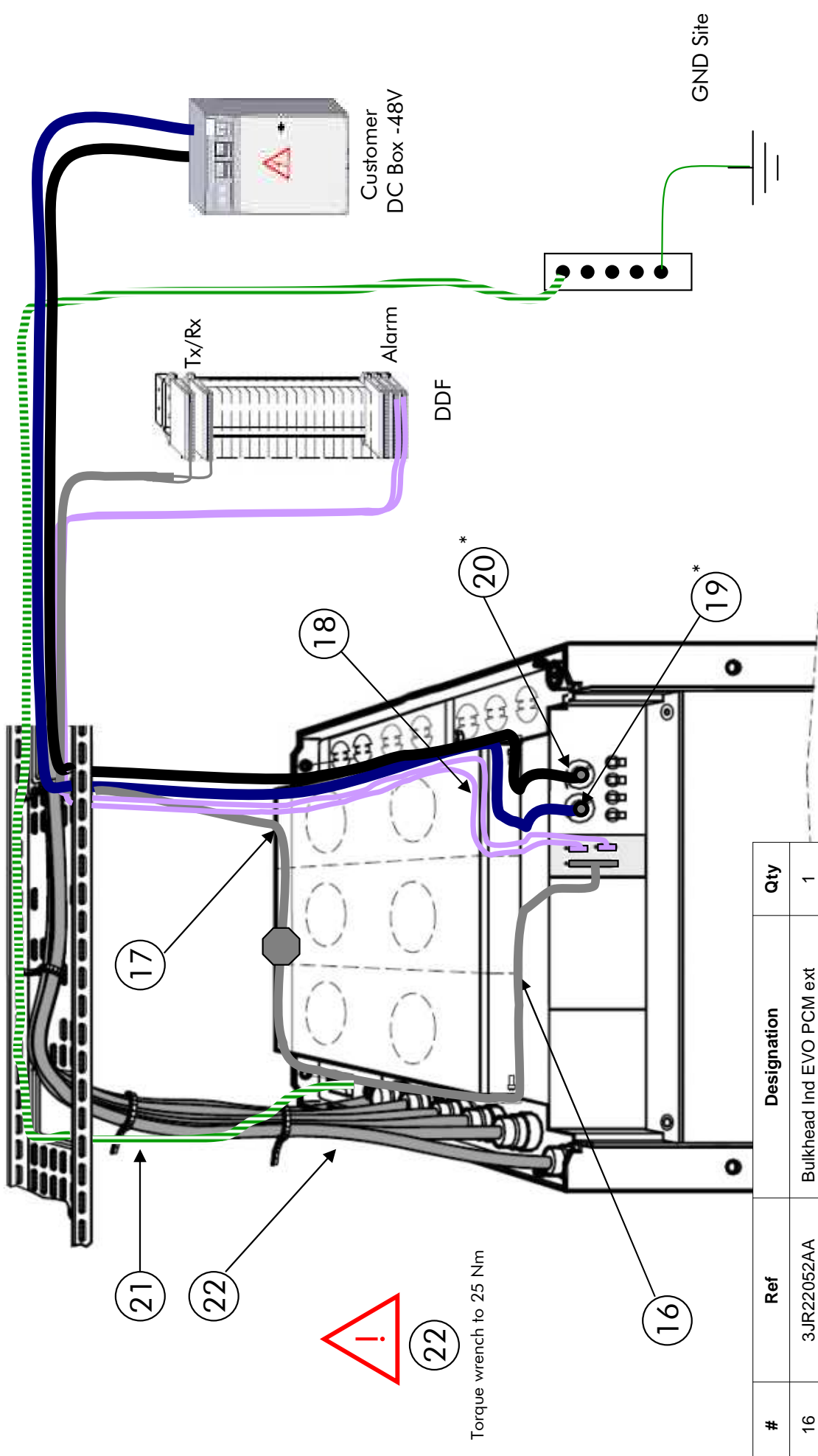


5. Solution with Optional IEAM+ LPPCM Module

| # | Ref | Designation | Qty |
|----|------------|-------------------------|-----|
| 6 | 3JR22028AC | RUC/xCCMu cable | 1 |
| 7 | 3JR22051AA | BULK IND EVO/XCCM IUB | 1 |
| 9 | 3JR22036AA | RUC/TRCU alarm cable | 1 |
| 11 | 3JR22038AA | TRCU Alarm out/d2U | 1 |
| 12 | 3BK27904BA | GND M6 | 2 |
| 13 | 3JR22053AA | Bulk evo ind/IEAM Alarm | 2 |
| 14 | 3JR22030AA | LPPCM OUT/XCCM IUB | 1 |
| 15 | NTA595QF | PCM/ALARM MOD CO | 1 |



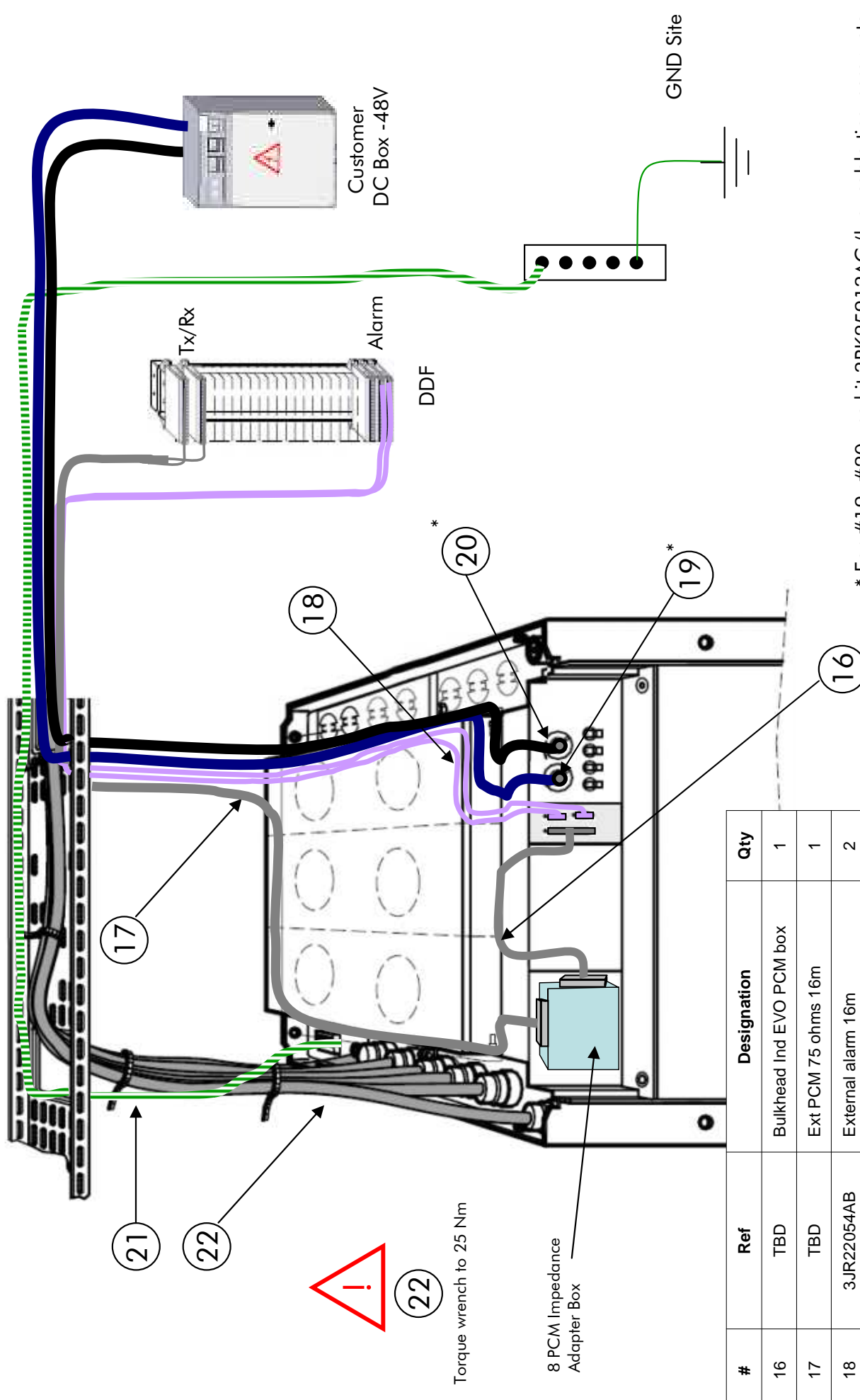
6. Cabinet External Cabling Solution PCM 120 Ohms



| # | Ref | Designation | Qty |
|----|--------------------------------|--|----------|
| 16 | 3JR22052AA | Bulkhead Ind EVO PCM ext | 1 |
| 17 | NTBY60SF | Inst PCM 120 ohms Ind2 | 1 |
| 18 | 3JR22054AB | External alarm 16m | 2 |
| 19 | 3BK25995HA | -48V blue cable 1x25mm ² DC | 1 |
| 20 | 3BK08963HA | 0V/black cable 1x25mm ² DC | 1 |
| 21 | 3BK08964HA | GND Cable 1X25mm ² | 1 |
| 22 | 3BK05360C-AAA or 3BK05360D-AAA | RF cable TRDU to antenna | Up to 12 |

* For #19, #20 use kit 3BK25913AC (lug, cable ties, screw etc...)

7. Cabinet External Cabling Solution 8 PCM Impedance Adapter Box



* For #19, #20 use kit 3BK25913AC (lug, cable ties, screw etc...)

| # | Ref | Designation | Qty |
|----|-------------------------------|--|----------|
| 16 | TBD | Bulkhead Ind EVO PCM box | 1 |
| 17 | TBD | Ext PCM 75 ohms 16m | 1 |
| 18 | 3JR22054AB | External alarm 16m | 2 |
| 19 | 3BK25995HA | -48V blue cable 1x25mm ² DC | 1 |
| 20 | 3BK08963HA | 0Vblack cable 1x25mm ² DC | 1 |
| 21 | 3BK08964HA | GND Cable1X25mm ² | 1 |
| 22 | 3BK05360CAAAA or 3BK05360DAAA | RF cable TRDU to antenna | Up to 12 |

8.Pin-Out

PCM Cable: NTBY60SF

| Pin | Conductor Color | Pair | Signal |
|-----|-----------------|------|--------|
| 1 | Blue | 1 | RX1+ |
| 2 | Red | 1 | RX1- |
| 3 | Blue | 7 | RX4+ |
| 4 | Red | 7 | RX4- |
| 5 | Blue | 13 | RX7+ |
| 6 | Red | 13 | RX7- |
| 7 | Blue | 14 | TX7+ |
| 8 | Red | 14 | TX7- |
| 9 | Blue | 8 | TX4+ |
| 10 | Red | 8 | TX4- |
| 11 | Blue | 2 | TX1+ |
| 12 | Red | 2 | TX1- |
| 13 | Blue | 3 | RX2+ |
| 14 | Red | 3 | RX2- |
| 15 | Blue | 9 | RX5+ |
| 16 | Red | 9 | RX5- |
| 17 | Blue | 10 | TX5+ |
| 18 | Red | 10 | TX5- |
| 21 | Blue | 4 | TX2+ |
| 22 | Red | 4 | TX2- |
| 23 | Blue | 5 | RX3+ |
| 24 | Red | 5 | RX3- |
| 25 | Blue | 11 | RX6+ |
| 26 | Red | 11 | RX6- |
| 27 | Blue | 15 | RX8+ |
| 28 | Red | 15 | RX8- |
| 31 | Blue | 16 | TX8+ |
| 32 | Red | 16 | TX8- |
| 33 | Blue | 12 | TX6+ |
| 34 | Red | 12 | TX6- |
| 35 | Blue | 6 | TX3+ |
| 36 | Red | 6 | TX3- |

Alarm Cable: 3JR22054AB

| | PINS | NAME OF SIGNAL | COLOURS |
|---------------|------|-------------------|-------------------------|
| Twisted pairs | 1 | Alarm 1 | White/Blue |
| | 9 | Alarm 1R | Blue/White |
| Twisted pairs | 2 | Alarm 2 | White/Orange |
| | 10 | Alarm 2R | Orange/White |
| Twisted pairs | 3 | Alarm 3 | White/Green |
| | 11 | Alarm 3R | Green/White |
| Twisted pairs | 4 | Alarm 4 | White/Brown |
| | 12 | Alarm 4R | Brown/White |
| Twisted pairs | 5 | Alarm 5 | White/Grey |
| | 13 | Alarm 5R | Grey/White |
| Twisted pairs | 6 | Alarm 6 | Red/Blue |
| | 14 | Alarm 6R | Blue/Red |
| Twisted pairs | 7 | Alarm 7 | Red/Orange |
| | 15 | Alarm 7R/Alarm 8R | Orange/Red Green/Red |
| Twisted pairs | 8 | Alarm 8 | Red/Green |
| | | | |

Note: If the color pairs are not as specified, the supplier must provide an amendment to the above table, giving the actual cable colors used. This information must be supplied on a notice delivered with each cable

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The following pins: 19, 20, 29, 30 and 37 are not connected.