

Datasheet

EMC conversion kit for KM6-II subrack, 3U

RS Stock number 500-443

KM6-II EMC CONVERSION KITS

KM6-II Universal subracks and some sizes of KM6-EC can be retrospectively emc screened by the addition of covers and suitable front and rear panels.

Two Basic types of screening cover are available: **OVERALL**, (Fig. 1) which provide a screen over both the card area and the rear connector/backplane area. In this version, the rear of the subrack is completed by the addition of conventionally fixed panels, either full width or in combinations of lesser width front panels.

PCB AREA ONLY (Fig. 2) This application requires a motherboard/backplane which is specifically designed to provide rear screening using ground plane technology. With this geometry, only the front aperture requires screening panels.

Covers are generally available in ventilated and unventilated forms. They are designed to maintain intimate contact with the end plates by means of screws and internal flanges. At the interface with the extrusions, the covers have patented dimples in such a way as to provide an interference fit with a slot in the extrusion. The concept of this slot ensures that the card guide location holes are within the screened area of the subrack and also provides additional screening by introducing a labyrinth around the edge of the cover.

'A guide to the EMC screening of subracks' on page 4.02 discusses the effects of various configurations on the overall performance, with particular attention to the use of RFI fingers.

ORDERING AN EMC SCREENED SUBRACK

- 1) Select a Universal subrack kit to suit your card size. Note that, for instance, it is not possible to EMC screen a 220mm long card in a 240 deep subrack.
- 2) Select a conversion kit to suit the subrack and which will also screen the card size (NB some covers are suitable for more than one pcb length).
- 3) Select front and rear panels as appropriate
- 4) Identify total quantity of RFI finger strips required according to the desired performance level of the final assembly. (See page 4.02 for guide).

KM6-II UNIVERSAL SUBRACKS

FOR 160MM BOARDS **Ordering information**

End plate	For ordering information see page 4.12
3U x 240mm	
6U x 240mm	
9U x 240mm	

FOR 160 OR 220MM BOARDS

3U x 300mm	For ordering information see page 4.12
6U x 300mm	
3U x 360mm	
6U x 360mm	
9U x 360mm	

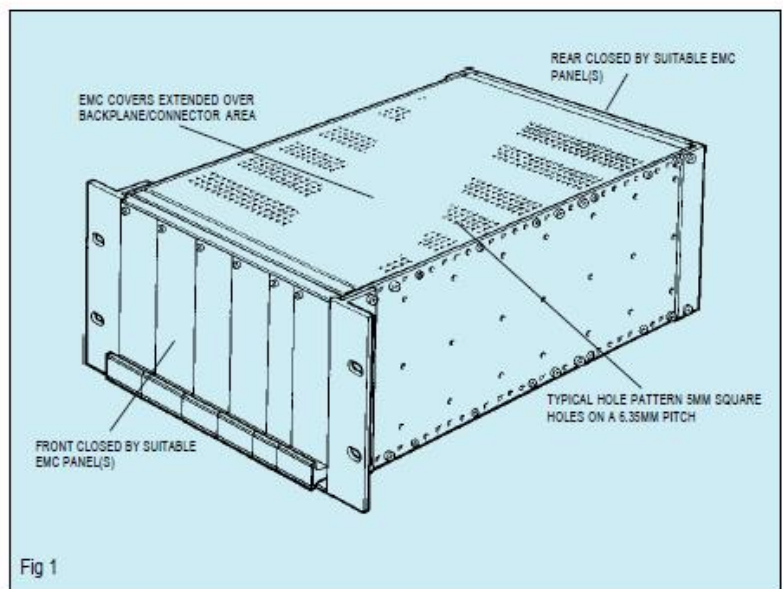


Fig 1

FOR 280 OR 340MM BOARDS

6U x 420mm	For ordering information see page 4.12
9U x 420mm	

KM6-EC SUBRACKS

FOR 160MM BOARDS

End plate	For ordering information see page 4.13
3U x 240mm	
6U x 240mm	

FOR 160 OR 220MM BOARDS

3Ux360mm	For ordering information see page 4.13
6Ux360mm	

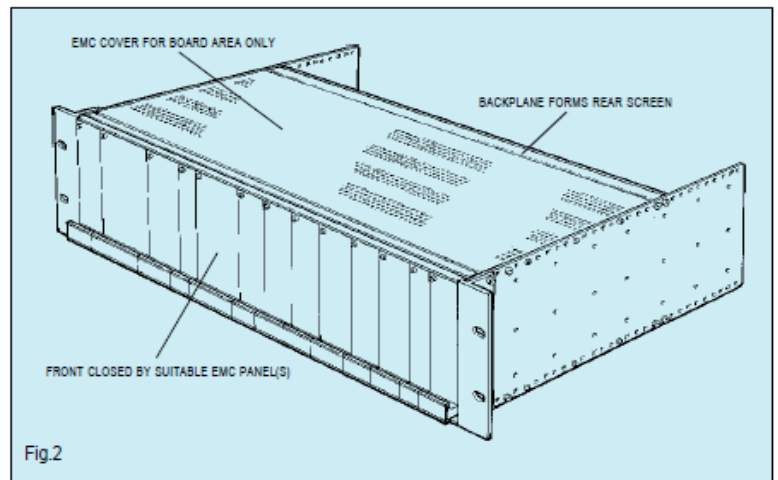


Fig.2

EMC CONVERSION KITS OVERALL

This kit contains all the parts required to convert an 84HP subrack for EMC, excluding any front or rear panels.

CONTENTS OF KIT

- 2 plain tie bars
- 2 tapped strips
- 2 rear closing angles
- Top and bottom covers (either ventilated or unventilated)

EMC CONVERSION KITS (for 160 pcs in 240mm end plates)

Ordering information		
Height	Description	Order code
3U	Unventilated	950-240574K
3U	Ventilated	950-240575H
6U	Unventilated	950-240576F
6U	Ventilated	950-240577D
9U	Unventilated	950-240578B
9U	Ventilated	950-240579L

EMC CONVERSION KITS (for 160 or 220 pcs in 300mm end plates)

Ordering information		
Height	Description	Order code
3U	Unventilated	950-240580D
3U	Ventilated	950-240581B
6U	Unventilated	950-240582L
6U	Ventilated	950-240583J

EMC CONVERSION KITS (for 280 or 340 pcs in 420mm end plates)

Ordering information		
Height	Description	Order code
6U	Unventilated	950-240562F
6U	Ventilated	950-240563D
9U	Unventilated	950-240564B
9U	Ventilated	950-240565L

EMC CONVERSION KITS (for 160 or 220 pcs in 360mm end plates)

Ordering information		
Height	Description	Order code
3U	Unventilated	950-240584G
3U	Ventilated	950-240585E
6U	Unventilated	950-240587A
6U	Ventilated	950-240588K
9U	Unventilated	950-240589H
9U	Ventilated	950-240590A

RFI FINGER STRIP

KM6-EC COMPATIBLE

Supplied in lengths of 381mm consisting of 60 fingers. The fingers are self adhesive for easy application and replacement in the field. The quantity of fingers fitted at any panel/subrack interface is selected according to the performance required from the overall screen. Please see page 4.02 for details. They can be cut using a sharp pair of scissors, taking care to avoid crushing during cutting.

RFI finger strip material: Beryllium copper

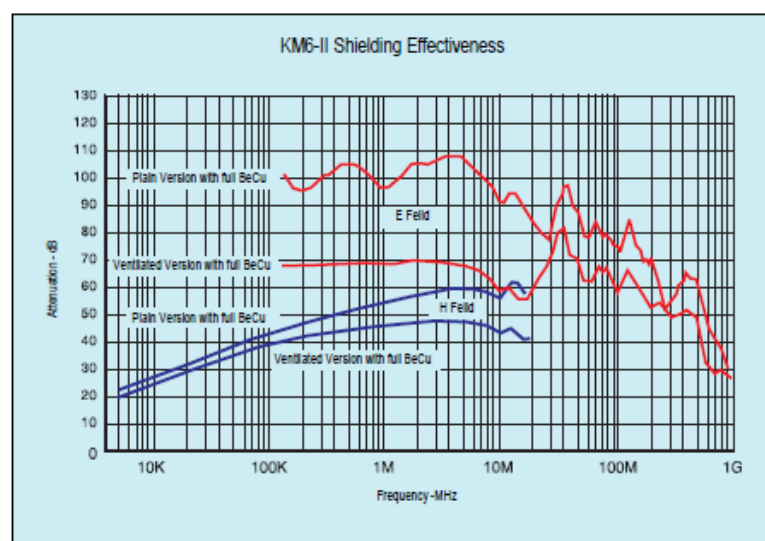
Ordering information

RFI Finger strip	930-238243F
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This performance graph shows the results from randomly selected KM6-II subracks, 6Ux84HPx360 with ventilated and unventilated EMC covers. Both were fitted with overall closing panels and a maximum quantity of BeCu fingers.

Measurements were taken at all six faces and the results shown in the graph are calculated as follows:
 H field - minimum figures
 E field - minimum figures up to 30MHz
 above 30MHz the figures for all faces are plotted on a rolling seven point average.

A detailed discussion of our EMC test facility and procedures is shown in our separate leaflet 'The Science of Compliance'. If you require a copy, please contact your local sales office.



NEW BOARD AREA ONLY EMC COVER KITS

KM6-EC COMPATIBLE

New board area only EMC cover kits (Fig.4) For use in situations where the backplane forms the rear EMC screen, these ventilated covers fit between the front, and backplane, extrusion only.

Select by board depth and subrack width (84HP only); end plate depth is not a consideration. Supplied in a kit of two with fixings.

Ordering information

Description	Order code
84HPx180 Ventilated EMC cover	950-259371F
84HPx220 Ventilated EMC cover	950-259372D



NEW 4U AND 7U COMPONENTS

In addition to the conventional methods of EMC screening, by using 4U and 7U components as detailed on pages 4.28 it is possible to create a screened subrack in which the normal plug-in units and any interface wiring is fully enclosed within the screen.

In this form, it is necessary to select the overall covers and panels from these pages.

NEW PRODUCTS ✓

THE OVERALL EMC CONVERSION KITS ARE ALSO AVAILABLE IN THEIR CONSTITUENT PARTS:

NEW In addition to the 84HP versions, a small range of ventilated overall covers is available in 42HP and 60HP widths. In order to fit these, it is necessary to order reduced width front extrusions and tapped strips, M4 fixing screws and rear closing angles.

NEW PRODUCTS ✓

TOP AND BASE COVERS OVERALL

MATERIAL: 0,9mm aluminium alloy

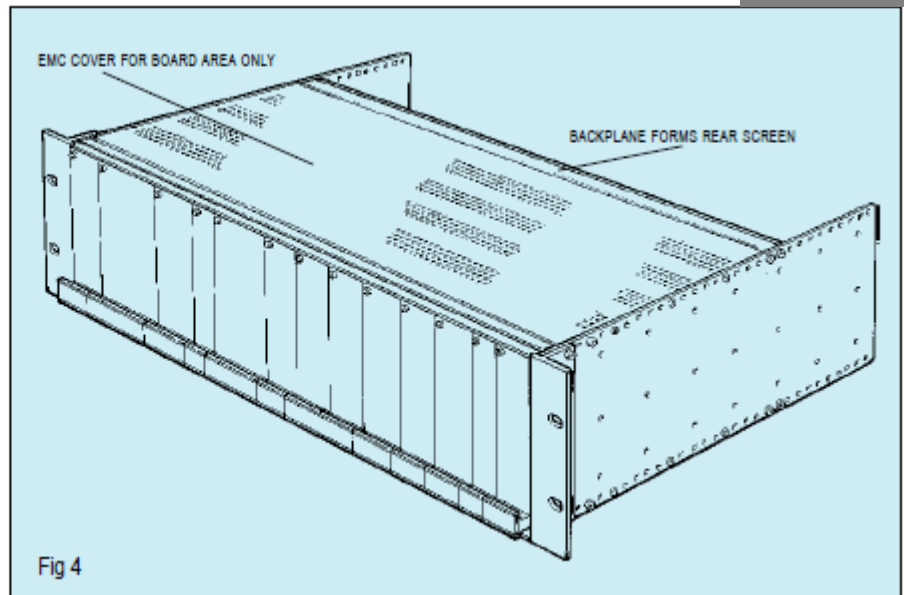


Fig 4

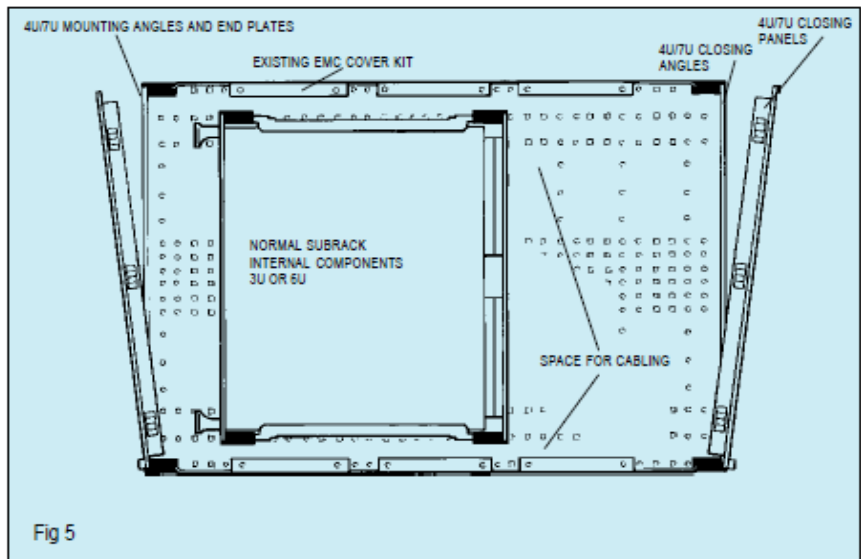
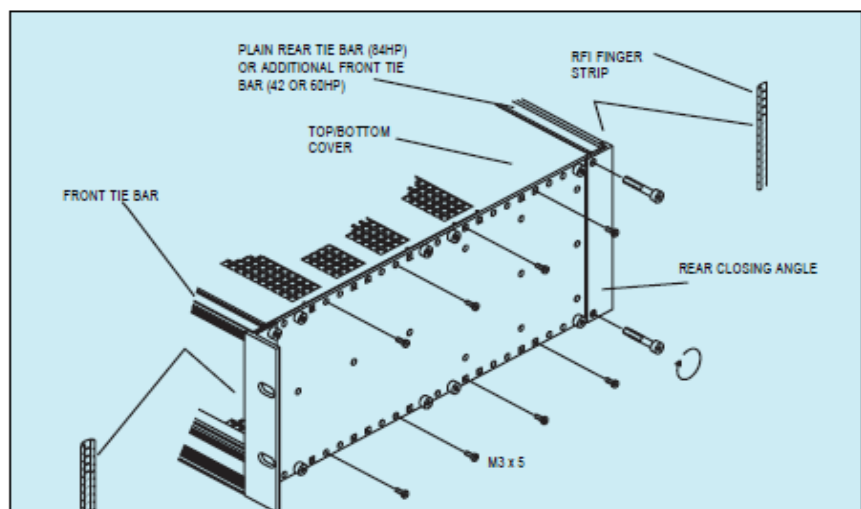


Fig 5



Ordering information

160 BOARD in 240mm end plates

KM6-EC COMPATIBLE

Width	Unventilated	Ventilated
42HP	-	950-259417H ✓
60HP	-	950-259418F ✓
84HP	950-240557K	950-240553G

160 or 220 BOARD in 300mm end plates

42HP	-	950-259419D ✓
84HP	950-240556A	950-240552J

160 or 220 BOARD in 360mm end plates

KM6-EC COMPATIBLE

84HP	950-240559F	950-240554E
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280 or 340 BOARD in 420mm end plates

84HP	950-240558H	950-240555C
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REAR CLOSING ANGLES

These are fitted at the rear in conjunction with rear mounting tie bars. EMC Beryllium copper fingers are included to maintain the shield between the subrack and EMC panels.

CONTENTS OF KIT

2 angles

Ordering information

Height	Order code
3U	950-240549J
4U	950-259278G ✓
6U	950-240550B
7U	950-259279E ✓
9U	950-240551L

REAR MOUNTING TIE BARS

Two should be ordered per subrack. Sold in singles. Two tapped strips and fixings are also required.

Ordering information

Width	Description	Order code
84HP	Plain tie bar	950-221909A
84HP	Tapped strip	950-202001E
60HP	Front tie bar top	950-202743E
60HP	Front tie bar bottom	950-202742G
60HP	Tapped strip	950-202740L
42HP	Front tie bar top	950-202736B
42HP	Front tie bar bottom	950-202735D
42HP	Tapped strip	950-202739G
	Pack 100 fixings	950-202734F