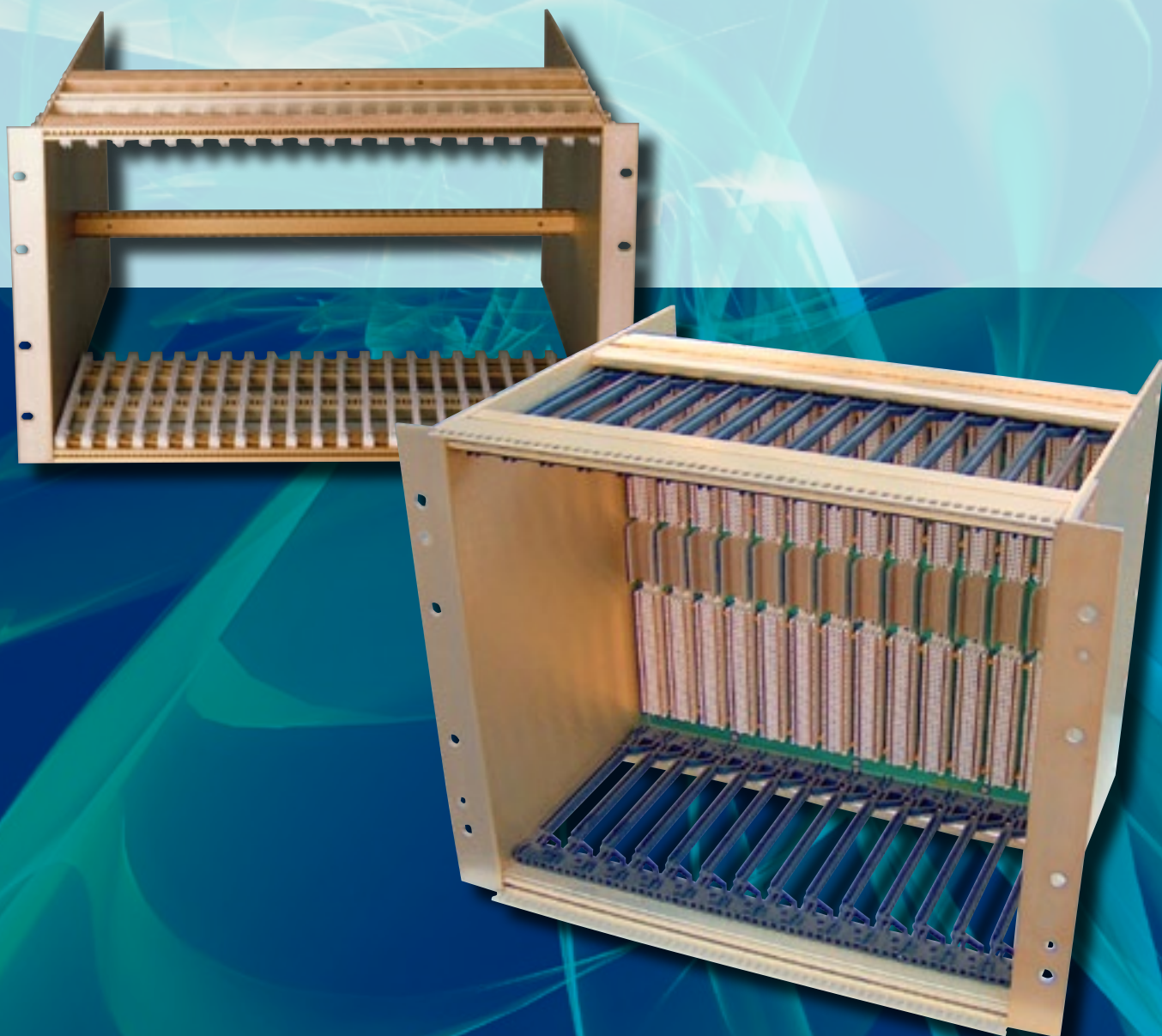
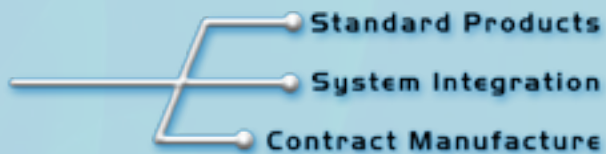


VEROTEC

Electronics Packaging



KM6-HD Subracks

Introduction: KM6-HD subracks

KM6-HD HEAVY DUTY CARD FRAME

INTRODUCTION

The KM6-HD subrack system, although primarily designed for military use, would suit any rugged application where a high resistance to shock and vibration is required. Built to meet MIL-STD-167, its features include positive guide locking / retention, heavy two-screw fixing tiebar extrusions, 3mm thick side plates / rack angles and a conductive finish throughout.

The KM6-HD subrack accepts standard Eurocards in 3U, 6U and 9U heights and depths of up to 400mm in both IEC60297 and IEEE1101.10/11 standards. This makes the card frames suitable for housing popular backplane types such as VMEbus, VXI, VME64 Extensions, VPX, VXS, CompactPCI and also DIN connectors with the use of a connector mounting extrusion.

KM6-HD subracks are supplied in kit form as standard but can be shipped fully assembled upon request. They are compatible with the comprehensive range of KM6-II accessories including; front panels, plug-in units, divider kits and peripheral mounting assemblies.

FEATURES

- Designed and built to meet Military Standard (MIL STD) 167
- IEC60297 and IEEE1101.10/11 compliant versions
- Heavy duty tiebars, side plates and rack angles
- Positive guide locking
- Conductive finish
- Accepts both 0.062" (1.6mm) and 0.093" (2.4mm) eurocards
- 3U, 6U & 9U heights
- 160mm, 220mm & 400mm guide depths
- Optional 80mm rear transition area on IEEE version
- KM6-II compatible accessories
- Supplied in kit form (assembled upon request)

ORDERING INFORMATION

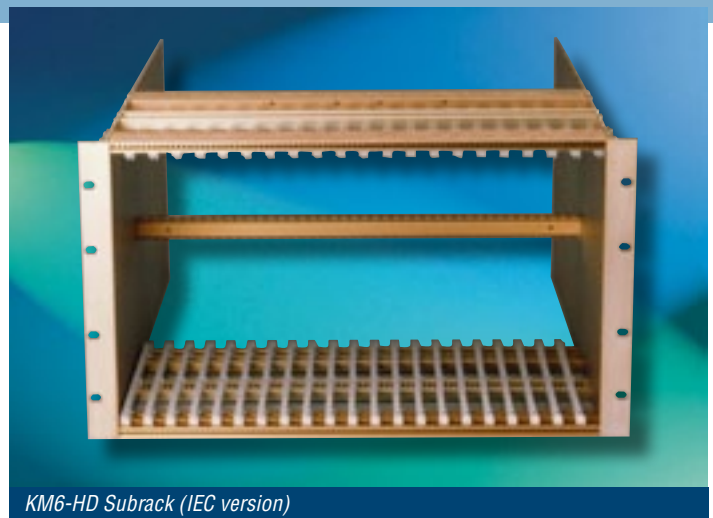
IEC60297 TYPES (FOR VMEBUS, VXI ETC.)

Height	Depth	Width	ORDERCODE 160mm Guides	ORDERCODE 220mm Guides	ORDERCODE 400mm Guides
3U	240	84HP	167-4001627	167-4001628	N/A
3U	300	84HP	167-4001629	167-4001630	N/A
3U	360	84HP	167-4001631	167-4001632	N/A
6U	240	84HP	167-4001633	167-4001634	N/A
6U	300	84HP	167-4001635	167-4001636	N/A
6U	360	84HP	167-4001637	167-4001638	N/A
6U	420	84HP	167-4001639	167-4001640	167-4001641
9U	240	84HP	167-4001642	167-4001643	N/A
9U	300	84HP	167-4001644	167-4001645	N/A
9U	360	84HP	167-4001646	167-4001647	N/A
9U	420	84HP	167-4001648	167-4001649	167-4001650

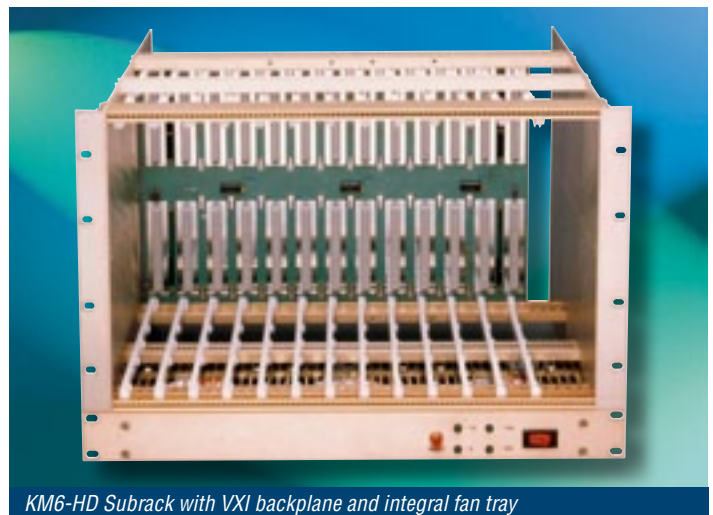
IEEE1101.10/11 TYPES (FOR VME64X, VPX, VXS, COMPACTPCI ETC.)

Height	Depth	Width	ORDERCODE 160mm Guides
3U	240	84HP	167-4001651
3U	240	84HP	167-4001652
6U	300	84HP	167-4001653
6U	300	84HP	167-4001654
3U	160/80*	84HP	167-4001655
6U	160/80*	84HP	167-4001656

* These items have a 160mm front card area and 80mm rear transition area.



KM6-HD Subrack (IEC version)



KM6-HD Subrack with VXI backplane and integral fan tray



KM6-HD Subrack (IEEE version) with VME64x Backplane

CONTENTS OF KIT

IEC versions

- 2 x Front tiebars with locking bar assembly
- 2 x Rear tiebars with locking bar assembly
- 2 x Side plates
- 2 x 19" Rack angles
- Centre rear backplane support (x2 on 6U, x3 on 9U subracks)
- Centre card guide support (x2 for 220mm guides, x4 for 400mm guides)

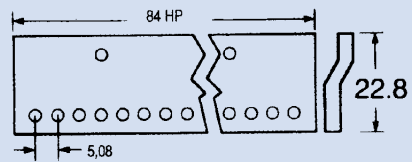
IEEE versions

- 2 x Front tiebars for inject/extractor handles
- 2 x Rear tiebars
- 2 x Side plates
- 2 x 19" Rack angles

DIN (IEC) CONNECTOR MOUNTING EXTRUSION

Discreet DIN 41612/IEC 603 2 connector mounting may be accomplished by attaching this extrusion with screws and lock washers to the rear tie bar.

Supplied singly in an 84 HP length and tapped on 0.2"(5,08) centres, the connector mounting extrusion may easily be cut to length by the user, if required, for mixing both connectors and backplanes in the same card frame.



DIN (IEC) Connector Mounting Extrusion

ORDERING INFORMATION

Description	Order code
DIN Connector Ext.	167-47506K

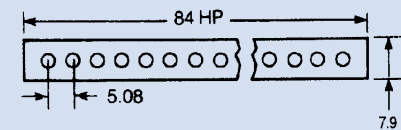
BACKPLANE SPACERS

Card frames and backplanes designed in accordance with the most recent bus specifications and the IEEE / IEC mechanical specification require the use of backplane spacers in order to ensure proper daughter board engagement. These spacers are pierced on 0.2"(5,08) centres to allow clearance for backplane mounting screws.

The spacers shown below are supplied singly in various lengths, in either conductive or non conductive material. Two pieces are normally required for each 3U section of backplane, Either type may easily be cut to length for special applications.

ORDERING INFORMATION

Description	Order code
84 HP Conductive Spacer	167-47511K
36 HP Conductive Spacer	167-47593E
24 HP Conductive Spacer	167-47594B
84 HP Non-conductive	167-47507G
36 HP Non-conductive	167-47595K
24 HP Non-conductive	167-47596G



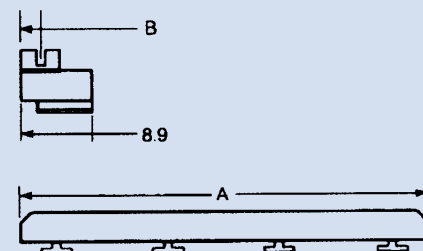
Backplane Spacers

PCB GUIDES - IEC SUBRACKS

Pcb guides are required for daughter board mounting. Two guides must be used for each daughter board. In the case of Pcb guides for boards 220mm in depth or greater, a projection is moulded in to engage the centre support bar(s). This provides restraint from the effects of shock and vibration and also provides mechanical alignment of the guide.

ORDERING INFORMATION

PCB length	PCB Thickness	Dim. A	Dim. B	Order code
160 MM	1.6 MM	166.2	3,05	167-47500F
220 MM	1.6 MM	226.2	3.05	167-47501C
340 MM	1.6 MM	346.2	3.05	167-47503H
400 MM	1.6 MM	406.2	3.05	167-47504E
160 MM	2.4 MM	166.2	2.67	167-47450B
220 MM	2.4 MM	226.2	2.67	167-474631
340 MM	2.4 MM	346.2	2.67	167-47465E
400 MM	2.4 MM	405.2	2.67	167-47466B



PCB Guides - IEC subrack version

PCB GUIDES - IEEE SUBRACKS

IEEE versions of the subrack use a different guide which is located into the tiebar with 2 x pips and positively retained with 2 x self tapping screws. The plastic moulded guide also provides front panel coding, handle pre-location and ESD functionality.

ORDERING INFORMATION

Description	PCB Thickness	Ordercode
160mm Black	1.6mm	167-4001657
160mm Red	1.6mm	167-4001658

FRAMES WITH INTEGRAL COOLING

Each of the KM6-HD card frames previously detailed is available with integral cooling fans. The addition of fans increases the overall height of the unit by 1U (44.45mm). Frames with 160mm and 220mm guides have a fan tray with 3 fans while units with 400mm guides and rear transition areas are fitted with trays incorporating 6 fans.

Each fan tray assembly has a front panel which includes a mains-on indicator. Fans are positioned centrally depending on the depth of the card guide to ensure maximum cooling of the boards in the frame.

Fan trays are available in both 110V.a.c. and 220V.a.c. versions with a standard IEC inlet at the rear for power connection.



KM6-HD fan tray

KM6-HD END PLATES AND END PLATE ANGLES

Endplates and endplate angles are conductively finished and supplied singly by ordering the part numbers shown below. End plates are made from 3mm thick aluminium sheet and end plate angles are 2.5mm thick extrusions.

ORDERING INFORMATION

Height	Description	Depth	Order code
3U	End Plate	240	167-4001716
	End Plate	300	167-4001717
	End Plate	360	167-4001718
	Rack Angle	N/A	167-4001719
6U	End Plate	240	167-4001720
	End Plate	300	167-4001721
	End Plate	360	167-4001722
	End Plate	420	167-4001723
	Rack Angle	N/A	167-4001724
9U	End Plate	240	167-4001725
	End Plate	300	167-4001726
	End Plate	360	167-4001727
	End Plate	420	167-4001728
	Rack Angle	N/A	167-4001729

KM6-HD TIE BARS AND TAPPED STRIPS

The following extrusions are available in 17.0" (431.8mm) lengths. Each part number includes the extrusion, tapped strip, the locking bar assembly and guide spacer if applicable.

ORDERING INFORMATION

Description	Order code
Front Top/Bottom Tie bar (IEC297)	167-47797
Rear Top/Bottom Tie bar (IEC297)	167-47798
Rear Centre Tie bar (IEC297)	167-47494
Guide Support Extrusion (IEC297)	167-47493
Front Top/Bottom Tie bar (IEEE 1101)	167-4001730
Rear Top/Bottom Tie bar (IEEE 1101)	167-4001731

ORDERING INFORMATION

Frames with integral cooling

Basic Frame Order code	Integrally cooled frame - Ordercode	
	3 x 110Vac Fans	3 x 220Vac Fans
167-4001627	167-4001659	167-4001689
167-4001629	167-4001660	167-4001690
167-4001631	167-4001661	167-4001691
167-4001633	167-4001662	167-4001692
167-4001635	167-4001663	167-4001693
167-4001637	167-4001664	167-4001694
167-4001639	167-4001665	167-4001695
167-4001642	167-4001666	167-4001696
167-4001644	167-4001667	167-4001697
167-4001646	167-4001668	167-4001698
167-4001648	167-4001669	167-4001699
167-4001628	167-4001670	167-4001700
167-4001630	167-4001671	167-4001701
167-4001632	167-4001672	167-4001702
167-4001634	167-4001673	167-4001703
167-4001636	167-4001674	167-4001704
167-4001638	167-4001675	167-4001705
167-4001640	167-4001676	167-4001706
167-4001643	167-4001677	167-4001707
167-4001645	167-4001678	167-4001708
167-4001647	167-4001679	167-4001709
167-4001649	167-4001680	167-4001710
167-4001651	167-4001681	167-4001711
167-4001652	167-4001682	167-4001712
167-4001653	167-4001683	167-4001713
167-4001654	167-4001684	167-4001714

Basic Frame Order code	Integrally cooled frame - Ordercode	
	6 x 110Vac Fans	6 x 220Vac Fans
167-4001641	167-4001685	167-4001715
167-4001650	167-4001686	167-4001716
167-4001655	167-4001687	167-4001717
167-4001656	167-4001688	167-4001718

CUSTOM CONFIGURATIONS

Verotec specialises in customisation of its standard parts and is capable of designing a version of the KM6-HD series frame to your specifications.

To assist you with your custom design, Verotec makes available at a nominal charge, a series of drawings which contain outline of the following KM6-HD parts.

- End plates
- End plates angels
- Extrusions (including profiles)
- Divider plates
- Backplane spacers
- Front panels

These drawings are available as files created under AUTOCAD@ V10.0 or 1GES compatible files on 5.25 disks in Ibm Pc format

The cost of these drawings is credited on your first order for custom products.

ORDERING INFORMATION

Description	Order code
AUTOCAD Files	167-47729
IGES Files	167-47730

MATERIAL SPECIFICATIONS

Part	Material	Finish/Specification
Sheet aluminium	Aluminium alloy 5052-1132	Gold Iridite per MIL-C-5541
Extrusion	Aluminium alloy 6063-T6	Gold Iridite per MIL-C-5541
Card guide	Grey Norylo 225	UL 94 V0
Conductive spacer	Aluminium alloy 6063-T6	Aluminium alloy 6063-T6
Non-conductive spacer	Black rigid PVC -	None
Tapped strip	Mild steel	Gold chromate

PIECE PARTS

Accessory Hardware

The following items may be ordered as accessory items or spares as required. They are supplied in packs of ten pieces.

ORDERING INFORMATION

Description	Where Used	Order code
Socket head cap screw M4 x 30mm	End plate and angles to tie bars Extrusion to divider plate	167-47512
Set screw M2.5 x 5mm	Locking bar assembly	167-47787
Screw M2.5 x 6mm	Backplane	167-47792
Screw	End plate angle to end plate (divider frame)	167-47791
Screw M2.5 x 8mm	Connector mounting extrusion to tie bar	167-47786
Hex nut M4	End plate Angles to end plate (divided frames only)	167-47688
Lockwasher M4	End plate angle to end plate Type 2 Divider plate to rear tie bar	167-47689
Screw M2.5 x 12mm	Monolithic Backplanes to rear tie bar	167-47686



Custom KM6-HD Subrack

