

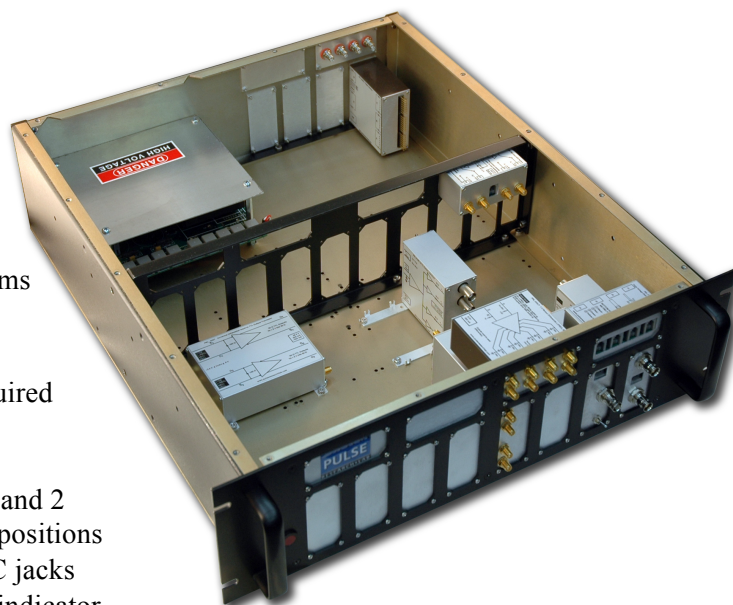
PRL-MRK3-1, MODULAR RACKMOUNT SYSTEM INTEGRATION KIT

APPLICATIONS

- Rapid system prototyping
- Custom systems or one-of-a-kind systems
- Multi-channel logic level translation
- Multi-channel routing and multiplexing
- Signal distribution/fanout
- Multi-channel pickoff/monitoring
- Mixed function/mixed signal/mixed logic systems

FEATURES

- Rapid system assembly with no engineering required
- Includes slide rail set
- 18 positions for mounting PRL modules
- Optional mid-panel with 13 additional positions and 2 cable pass-throughs. Bracket grid for additional positions
- Switchable 120/220V power with 10 internal DC jacks
- Rear-panel power switch and front panel power indicator
- 0.089" thick ventilated aluminum chassis
- Standard 19" rackmount, 3U height (5.75"), 21" depth



PRL- MRK3-1 with top cover removed
(partially populated, MMIs and mid-panel optional)

GENERAL DESCRIPTION

The PRL-MRK3-1 modular rackmount kit enables rapid assembly of custom systems from an assortment of PRL Mini Modular Instruments (MMIs). Multiple MMIs may be mounted, powered, and cabled together in minutes, providing a rugged, reliable solution for creating one-of-a-kind systems, prototype systems, lab systems, etc.

The chassis front and rear panels have cutouts for mounting any MMI with a 1.3" x 2.9" cross-section (PRL 970 series). To mount a module, remove the 4 screws from one endplate, place the MMI inside the rackmount kit, and then secure it to the panel with the endplate screws. Up to 31 modules and/or adapter plates may be mounted in the kit (with the optional mid-panel) subject to power requirements.

Modules may also be mounted on a defined grid inside the chassis using our standard mounting brackets (PN 35001420), or anywhere inside the chassis via 3M Dual-lock™ fastener strips. Use one coarse and one fine strip for removable/reconfigurable mounting or two fine strips for virtually permanent installation.

If a module is mounted with its DC input jack on the outside of the chassis, a PRL-730 voltage distribution module may be mounted to the panel to route power to the outside of the chassis for up to 4 modules.

To route signals from inside the chassis to the outside, a bulkhead adapter plate may be used for signal pass-through. Adapter modules may be used to convert connector types, such as Triax to/from dual SMA, or SMA to/from RJ-45.

Modules with remote-control, such as the PRL-854-RM series of switches, can be programmed via TTL control pins or over USB via the PRL-USBIO-1 controller module. A TCP/IP controller module is coming soon.

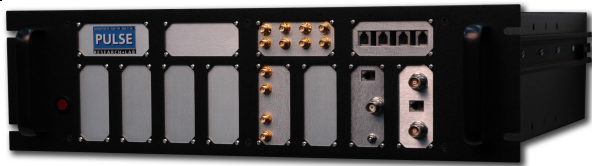
Installed in each kit is a ± 8.5 V, ± 2.2 Amp internal power supply with 10 DC supply jacks, compatible with nearly all 970-series MMIs (see PRL website for details). The AC input is 120/220 VAC switchable and fused, with an external grounding post.



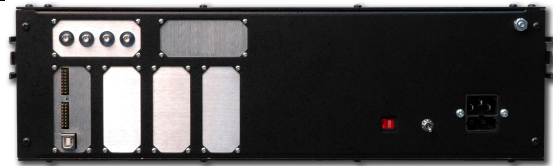
1234 Francisco Street, Torrance, CA 90502
Tel: 310-515-5330 Fax: 310-515-0068
Email: sales@pulseresearchlab.com
www.pulseresearchlab.com

SPECIFICATIONS

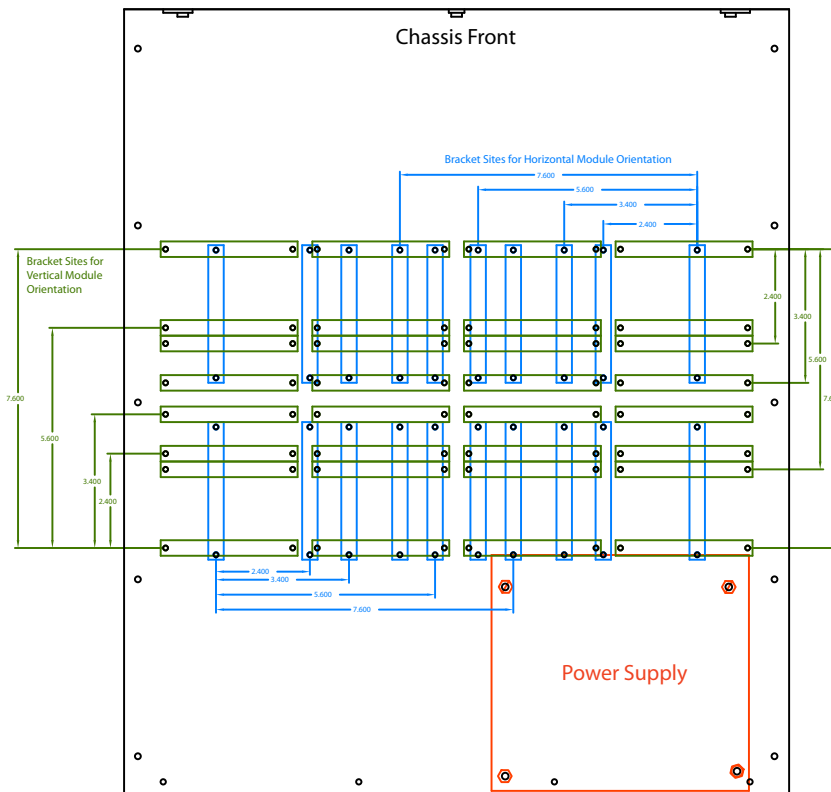
SYMBOL	PARAMETER	Min	Typ	Max	UNIT	Comment
	Mounting positions, front		12			
	Mounting positions, rear		6			
	Mounting positions, mid panel		13			
	Mounting positions, base plate		8			
	Cable pass-through positions, mid panel		2			
	Internal DC supply jacks		10			
V_{AC1}	AC Input Voltage	103	115	127	VAC	Switched to 120 V
V_{AC2}	AC Input Voltage	206	230	254	VAC	Switched to 220 V
V_{DC1}	DC Output Voltage, positive supply	+8.5		+12.5	VDC	
V_{DC2}	DC Output Voltage, negative supply	-12.5		-8.5	VDC	
I_{DC1}	DC Output Current, positive supply	2.4			A	
I_{DC2}	DC Output Current, negative supply	-2.4			A	
	Size	5.25H x 19.0W x 21.0D			in	Depth from rack face
	Weight	15			lb	Excluding modules



Modules Mounted to Front Panel



Modules Mounted to Rear Panel



In addition to positions on the front, rear, and optional mid-panel, there is a defined grid for placement of PRL's standard mounting brackets (PN 35001420), with spacings for PRL modules of different lengths.

Modules may be mounted in a horizontal or vertical orientation, either parallel to or perpendicular to the base plate of the chassis.



ORDERING INFORMATION

Part Number	Description
PRL-MRK-3-1	Rackmount kit, 3U, 12 front/6 rear positions, slide rails, internal pwr supply, AC cable (U.S. 3-wire, 8')
PRL-MP-3-1	Mid panel, 3U, 13 positions, 2 cable passthroughs, mounting screws
39500002-1	Filler plate, blank, with mounting hardware, 1 each
39500002-1-10	Filler plate, blank, with mounting hardware, set of 10
88000102-4	Cable, DC power, with modular plugs, 4'
88000102-1	Cable, DC power, with modular plugs, 1'
88001351-1.5	Cable, Coax, 50 Ohm 3+ GHz, SMA/SMA, 1.5'
88001351-3	Cable, Coax, 50 Ohm 3+ GHz, SMA/SMA, 3'
88001140-18	Cable, Shielded Twisted Pair, 124 Ohm, Triax/Triax, 1.5'
88001140-36	Cable, Shielded Twisted Pair, 124 Ohm, Triax/Triax, 3'
88000104-1.5	Cable, Coax, 50 Ohm RG-174 or equivalent, SMA/BNC, 1.5'
88000104-3	Cable, Coax, 50 Ohm RG-174 or equivalent, SMA/BNC, 3'
88000071-1.5	Cable, Coax, 50 Ohm RG-174 or equivalent, BNC/BNC, 1.5'
88000071-3	Cable, Coax, 50 Ohm RG-174 or equivalent, BNC/BNC, 3'
88004001-1.5	Cable, control, twisted pair, 1 x 2 header connectors, 1.5'
88004001-3	Cable, control, twisted pair, 1 x 2 header connectors, 3'
44001002-10	Cable ties, 4", set of 10
44001001-10	Cable ties with tag, 4", set of 10, with fine-tip felt marker
44001201-10	Cable tie holder, adhesive backed, set of 10
39500002-125	End plate, with 4 SMA bulkhead adapters and mounting hardware
39500002-126	End plate, with 8 SMA bulkhead adapters and mounting hardware
39500002-127B	End plate, with 2 BNC bulkhead adapters and mounting hardware
39500002-127T	End plate, with 2 Triax jack bulkhead adapters and mounting hardware
PRL-Triax-SMA	Adapter module, 2 Triax to 4 SMA Female
PRL-RJ45-SMA	Adapter module, RJ-45 to 8 SMA Female
PRL-730	DC power distribution module, 8 modular jacks
PRL-USBIO-1	PRL Controller module, USB to TTL, 24 front/13 rear stick pin bits, 3 ID bits, sample code and DLL
33000008	AC power cable, grounded, UK, 8'
33000005	AC power cable, grounded, Continental Europe, 8'
33000009	AC power cable, grounded, China/Australia, 8'
72500001-2	SMA finger wrench
8950004-12	3M Dual-Lock Fastener Strip, adhesive backed, coarse, 12"
8950005-12	3M Dual-Lock Fastener Strip, adhesive backed, fine, 12"