

RF Shielding Performance

The QuietCAB arrives to site having been fully tested at Raymond EMC as per ITSG-02, not only meeting but it exceeds the following Shielded effectiveness levels:

Magnetic:

55dB @ 10 kHz, 95 dB @ 200 kHz, 100 dB @ 1 MHz

Electric/Planewave/Microwave:

100 dB from 1 MHz to 10 GHz

Door Hardware

The door units are factory assembled, consisting of door leaf, door-frame, hardware and electrical contact strips.

As a standard we have included 2 each 28" x 74" secure doors. One on the face and one on the back of the enclosure. Lever latches are utilized with a maximum 10lbs latching force.

Door Hardware consists of the following:

- 4 lift off hinges with provisions to position the door in its frame to tolerance of 0.005" in both vertical and horizontal directions.
- latch device consists of lever actuated type latch
- contact with strike is by cam roller bearing
- with the door leaf at rest and the fingerstock in light contact; the mechanism brings the door into its final RFI tight position

Honeycomb Waveguide Vents

Supply and return is filtered through two 18" x 24" honeycomb vents. The ventilation system forces air cooling air through the waveguide vents.

Power Filters

All incoming electrical conductors are filtered through UL listed radio frequency filters approved to meet the Canadian Electrical Code.

Each QuietCAB comes standard with a 2 x 30A, 120V, 60Hz power filter. Filters are designed to attenuate RF energy on the incoming power by 100 dB from 14 KHz to 10 GHz (when tested per MIL STD 220A). Cabinets can be ordered with a maximum of six 2 x 30Amp filters.

Fibreoptic Penetrations

Fiber optic connections are made through a network of patch fibers. Each patch fiber passes into or out of the cabinet through a Waveguide above cutoff penetration. Mating patch panels are provided on the exterior of the cabinet. The external patch panel is accessible through the removable security cover.

The QuietCAB can be ordered with up to 288 (in multiples of 12) duplex fiber optic interconnections. With a maximum of 144 on the rear and another 144 on the front of the cabinet. Patch cables can be ordered as 50/125um multimode or 62.5/125um multimode. All fiber optic cables are loop back tested at a wavelength of 850nm, other wavelength testing is available.

Electrical

The QuietCAB is equipped with rack mounted power bars. All incoming power filters are supplied with a 10' "cable" cable terminated with an approved twist lock plug.

- up to 6 each 30Amp filtered power line feeds, 120V, 208V, 240V 30 Amp twist lock plugs (L5-30 for 120V - L6-30 for other voltages)
- rack mountable power bars with:
 - 8 each NEMA 6-20ra receptacles
 - 8 each NEMA 5-20ra receptacles
- grounding lug is located at incoming power panel

Ventilation

Air flow is directed from the base of the enclosure along the full height of the rack and exhaust out of the top. A removable and serviceable air filter is located on the bottom of the cabinet. A three stage programmable closed loop digital temperature controller monitors temperature inside the cabinet and activates banks of high efficiency axial fans to control temperature. A piezzo alarm is incorporated to alert the end user of a potential cooling problem. The cooling requires 110V circuit which uses a 5-15ra receptacle.

The QuietCAB comes standard with a 12000 BTU/h ventilation system and can be ordered with optional 24000 or 36000 BTU/h system.

Integrated Rack

A welded steel seismic designed rack is integrated into the cabinet. Standard configuration includes a 37U 19" rack pre-threaded for 10 - 32 screws. The rack has a standard satin black powder coat finish. Other optional colors are available



QuietCAB

Raymond EMC Modular QC-37RU



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Performance Specifications

Each Quiet**CAB** meets or exceeds the following codes and standards where applicable:

- CSE Specification: ITSG-02 “ criteria for the design, fabrication, supply, installation, and testing of the walk-in radio frequency shielded enclosures. December 1999
- IEEE Std 299-1997 “IEEE Standard Method for Measuring the Effectiveness of Electromagnetic Shielding Enclosures “ 21 April 1998. To be completed at time of installation prior to absorber installation.
- ASTM E-84-81A Test for surface Burning Characteristics of Building Materials.
- MIL-F-15733 Filters, Radio Interference, General Specification for ANSI/UL-1283 Standard for Safety, Electromagnetic Interference Filters.
- MIL-STD-220A Method of Insertion Loss Measurement for Radio Frequency Filters.
- MIL-STD-285 Method of Attenuation Measurements for Electromagnetic Shielding Enclosure for Electronic Purposes
- MIL-STD-461E, “Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment.
- UL1283 Standard for Safety- Electromagnetic Interference Filters.
- Canadian Electrical Code

Seismic Design

Our QuietCAB is designed to meet seismic requirements. An engineer is required to inspect the final installation for seismic approval.

Maintenance

The Quiet**CAB** has been designed and fabricated to be as maintenance free as possible. Minimal preventative maintenance is required to maintain RF integrity and cooling efficiency.

The Quiet**CAB** ships with a maintenance kit complete with the following:

- fingerstock - Quiet**CAB** 2-18” length
- scotchbrite abrasive pads
- methyl hydrate - 1L bottle
- putty knife
- contact cleaner
- cloths - 12

Raymond EMC Quiet**CAB**

The Quiet**CAB** provides the shielding effectiveness of a standard Raymond EMC Shielded enclosure in a compact and maneuverable package.

The Quiet**CAB** is the perfect shielding solution for customers who need to integrate rack mount “Consumer Off of the Shelf” (COTS) equipment into a harsh EMC environment.

Based on the tried and proven Quiet**DOOR** and Quiet**BOX** technology, the 33” wide x 45” deep x 82” high Quiet**CAB** maneuvers on casters through standard office doorways.

Each QuietCAB is equipped with its own power line filter, receptacles and ventilation system. Simply plug the Quiet**CAB** into any receptacle and its ready for use

Optional Features

The Quiet**CAB** can be customized to suit our customers’ needs, and can be ordered with a variety of standard options including:

- Additional removeable access panel
- Black Satin powder coat paint finish. Other colors are available
- Up to 6 each 30 Amp Filtered power line feeds
120V, 208V, 240V
- Rack mountable power bars:
up to 8 each NEMA 6-20ra receptacles
up to 8 each NEMA 5-20ra receptacles
- Filtered ventilation system for 24000 or 36000 BTU load
- Up to 288, 1 G-Bit duplex LC fiber optic connections, other styles are available



Quiet**CAB**

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