FUJITSU

Data Sheet
1FINITY™ Housing

Flexible and Efficient Pay-As-You-Grow Power Distribution for 1FINITY Blades

1FINITY Housing at a Glance

- Redundant power span consolidation for up to six colocated 1FINITY blades
- Power bridging allows for versatile pay-as-you-grow power interconnect
- Integrated fuse/circuit breaker panel
- Flexible two or four-post rack mounting options

Product Overview

The 1FINITY Housing is a power bridging frame designed to accommodate up to six modular 1FINITY blades. Power bridging reduces capital and operating expenses by finding economies of scale when installing two or more 1FINITY blades at a site. An integrated power distribution unit (PDU) reduces installation costs by distributing –48 VDC to the six blade positions, avoiding individual power wiring to each blade.

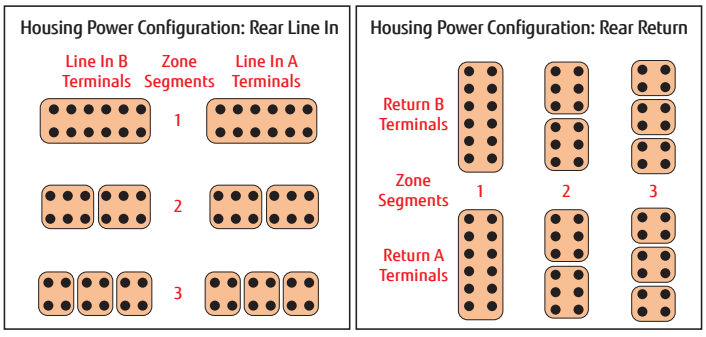
Unlike a standard telecom chassis, the 8 RU housing avoids additional maintenance effort because it has no processing, no active components, no fans to replace, and no backplane interconnect to maintain between the blades.

Power Distribution

The Integrated PDU provides optional redundant powering, two circuit breakers or fuses per blade position, and pay-as-you-grow power bridging efficiencies.

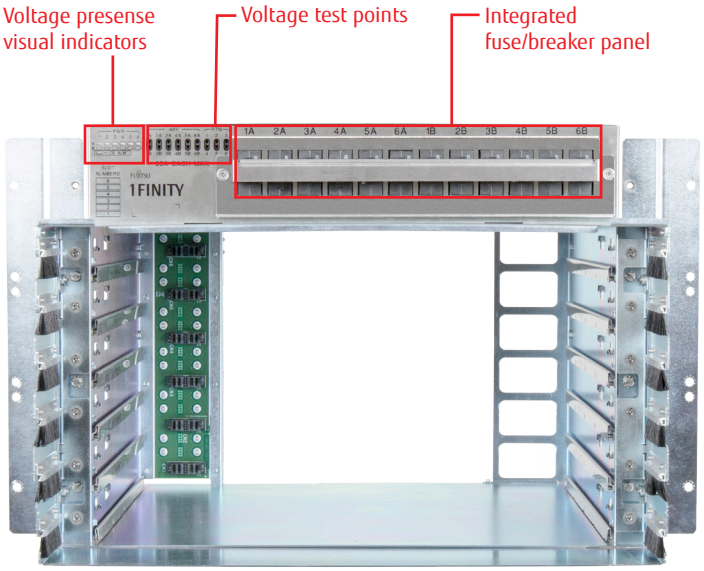
- Optional Redundant Powering
  Each 1FINITY blade can operate with a single power feed. A second power feed per Housing position is offered to utilize the redundant power operation of the 1FINITY blade for high availability operation.
- Blade Fuses or Breakers
  The PDU accepts twelve circuit breakers or fuses which can be populated at the 10 A, 15 A, or 25 A blade servicing level. This is field configurable allowing custom operation when used with different high- and low-power 1FINITY blade types.

- Power Bridging Efficiencies
  The six blade positions within the housing have field-configurable power bridging for one, two or three power zones within the housing for different power feeds. Power bridging offers efficient power distribution when a mix of high- and low-powered 1FINITY blades are installed. These configurations are implemented via a simple re-arrangement of the power bridging plates as shown in the illustration below.

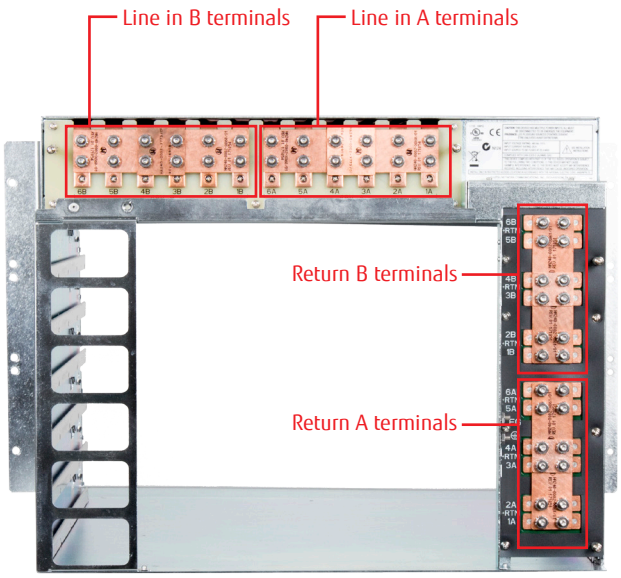


Power Bridging Zone Configurations

Optimized for Central Office Applications



1FINITY Housing (front)



1FINITY Housing (rear)

If more than one powering zone is selected, the pay-as-you-grow housing can be configured only for those zones which are currently populated in order to reduce current cost. The operations team can elect to configure all zones at once or each zone can be configured independently all the way down to two blades per zone, maximizing power efficiencies per configuration.

When single zone powering is selected, the fully-loaded housing reduces power span runs from twelve to two–a 6:1 operational cost savings.

Different functional blades consume different levels of power. For example, in a ROADM application, blades in the 1FINITY Lambda family consume less power than 1FINITY Transport blades. The low and high power positions can be in separate power zones with fuses or breakers sized appropriately to each zone. This efficient power distribution yields a lower-cost power service allocation than traditional chassis designs which lack this versatility and would require all high power services.

Flexible Mounting Options and Accessories

The 1FINITY Housing can be mounted into a NEBS-compliant 19" or 23" telecom rack (2-post) or a 19" data center server rack (4-post). Up to five housings can be installed in a standard 7' high rack.

NEBS Environmental Compliance

An optional front cover kit contains a replaceable air filter that is required for NEBS level 3 operation.

Simplified Network Operations

An integrated local maintenance panel provides voltage test points for all 12 power feeds and returns. The panel also has 12 voltage presence visual indicators which indicate if the A or B power connection for each blade is receiving power. An alarm LED indicates if any of the breakers are off, or if any of the fuses are blown.

1FINITY: A Revolutionary, Disaggregated Platform

For network operators seeking an open, simple, scalable architecture to meet escalating bandwidth demand, Fujitsu provides 1FINITY, a revolutionary disaggregated platform that delivers unprecedented flexibility, scalability, and efficiency. Unlike the traditional converged systems other vendors provide, the programmable, blade-centric design of 1FINITY offers operators a pay-as-you grow approach with low initial investment. Additional benefits include high rack space utilization, evergreen technology design, operational convergence, open pluggable optics, open APIs, and open protocols.

Technical Specifications

Base System	
Capacity	• Up to six 1FINITY blades per housing • Up to five housing units per 7' rack
Integrated Power Distribution Unit	12 x circuit breakers or TLS/TPS fuses at 10, 15, or 25 amp ratings
Visual Indicators and Test Points	12x voltage presence LEDs and alarm LED for breaker/fuse failure
Air Flow	Front to rear with optical filter assembly
Physical Characteristics	
Dimensions (H x W x D)	• 13.9 x 19.4 x 19" witout cover (354.03 x 493.60 x 483.07 mm) • 13.9 x 20.6 x 22.2" with cover (354.03 x 523.80 x 564.11 mm)
Weight	30.0 lb
Rack Compatibility	19" and 23" options for two and four post racks
Operating Environment	
Operating Temperature	–5 to +50 °C
Power Line Input	–40 to –57 V DC

Regulatory and Compliance	
Safety	• UL60950-1 2nd Edition (U.S.A. & Canada) • IEC60950-1 2nd Edition (Europe)
Emissions	• FCC Part 15, Class A (U.S.A.) • ICES003 Class A (Canada) • CISPR Publication 22 Class A (Europe)
CE Mark	• Approved to all European directives including low voltage directive and EMC directive (includes ETSI) • RoHS-6 • WEEE
NEBS-3	• GR63 – Physical Protection • GR1089 - Electromagnetic Compatibility (EMC) and Electrical Safety
Australia	RCM Mark (formally known as cTick)

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