

CHASSIS PLANS

ENGINEERED SOLUTIONS

The Application

Joint-Range Extension is a hardware and software system that receives information transmitted on a tactical data link in a particular area of operations and forwards that information to another tactical data link terminal beyond the line of sight.

JRE-DLT is a Data Link Translator terminal operating in the JRE theater providing multiple protocol translation and forwarding. The JRE-DLT is housed in a 7U transit case for field deployment in combat conditions.



The Specification

Chassis	Rugged 4U
Construction	5052-H32 Aluminum
Front Panel	Milled 1/4" Aluminum
SBC	2x MCXT
Backplanes	BPX6719, BPX3/2
Drives	2x 2-1/2" in sleds
Cooling	2x 92mm 150CFM Fans
Operating Temp	-5 to +55°C
Operating Humidity	5 to 95% RH

Features: Captive and locking hardware throughout, milled aluminum front panel with embedded EMI gasket, custom control board w/ built-in 5 second reset/power delay.



The Solution

Chassis Plans provided an extremely rugged 4U integrated system providing features tailored exactly to the intended application. The chassis is made of lightweight aircraft grade 5052-H32 aluminum alloy. The front panel is a milled 5052 aluminum billet for exceptional strength. An EMI filter is embedded in the front panel to seal the front door which provides an easily serviced air filter. Two high velocity 92mm fans blow directly over the SHB cards for assured cooling. All hardware is stainless steel self locking and captive. Tailored card hold-downs assure card retention including the heavy SHB heat sinks.

Two complete systems are incorporated in the one chassis. This was accomplished by installing two PCI-E backplanes with an MCXT Server Class SHB in each backplane for a Server/Client arrangement. One side runs Solaris and the other XP. Two 2-1/2" hard drives in removable carriers are provided as well as two slim DVD drives.

A unique feature is a custom system control board which requires the reset buttons be held for 5 seconds to prevent accidental resetting of the system. A Solaris shut-down function is similarly incorporated to initiate file maintenance prior to power off.