

FP502 – Test System Power Source

- Fourteen fixed outputs
- Ten programmable outputs
- IEEE 488/RS232/USB/Ethernet
- Two VXI rack seven output supplies
- Standalone http control panel

3200 Watts of Intelligent VXI Power

- Mainframe power
- Programmable power
- Input power monitoring
- Output power monitoring
- Voltage and current reporting

All in a single instrument



Ruggedized Design

- Operating temperature: -10°C to 55°C
- Functional shock per 3.8.5.1 MIL-PRF-2880F*
- Loose cargo per 3.8.4.3 MIL-PRF-2880F*

* Requires external hardware

SCPI Compatible

- IEEE 488.2 (GPIB) interface
- RS232 / RS422 / RS485 (optional)
- USB and TCPIP (802.3)
- Standard VXI11 type LAN interface

Ten Independent Programmable Outputs

- 0-±40/±80 Volts @ 5 Amps each
- Constant voltage or constant current
- Fully isolated outputs can be run in series or parallel to increase voltage or current capability up to 400 V or 50 A
- Continuous output voltage and current monitoring for all outputs, with intelligent fault detection



Flexible Input Power

- 102 – 265 Vac 1PH, 48 – 440 Hz
- 180 – 250 Vac 3PH (L-L), 48 – 440 Hz
- 18 – 32 Vdc (MIL-STD-704F)
- Input power monitoring with fault detection and power management

Virtual Instrument Software

- LABVIEW™ drivers
- ATEasy™ drivers
- Standalone software control panel

Two Independent VXI Mainframe Power Supplies, up to 1 kW each

- Provides +5 Vdc, ±12 Vdc, ±24 Vdc, -5.2 Vdc, and -2 Vdc
- Continuous output voltage and current monitoring for all outputs, with intelligent fault detection and shutdown



FP502 – Test System Power Source

VXI Fixed Power Unit (FPU) (Two independent seven output supplies)

Nominal Voltage (V)	Maximum Power (W)	Maximum Current (A)	Surge Power (W) ^[a]	Tolerance (V)	Ripple and Noise (mV p-p)
24.0	162	6.75	200	+1.2 / -0.72	150
12.0	150	12.5	200	+0.6 / -0.36	50
5.0	300	60	400	+0.25 / -0.125	50
-2.0	56	28	60	-0.1 / +0.1	50
-5.2 ^[a]	156 / 44	8.5	200	-0.26 / +0.156	50
-12	75	6.25	200	-0.6 / +0.36	50
-24	150	6.25	200	-1.2 / +0.72	150

^[a] Primary chassis 156 W, secondary chassis 44 W

Programmable Power Unit (PPU)

CH1 & CH2: 40 V Configuration

Output voltage range	0 - 40 Vdc
Output current range	0 - 5 A
Output voltage resolution	10 mV
Output current resolution	2 mA
Output voltage ripple + noise	25 mV typ. / 60 mV max.
Voltage set-point accuracy	±10 mV typ. / ±40 mV max.

Programmable power unit slots may be filled with dual 40 V outputs or a 40 V / 80 V configuration.

Channel 1 in the slot is always 40 Vdc.

CH2: 80 V Configuration

Output voltage range	0 - 80 Vdc
Output current range	0 - 5 A
Output voltage resolution	20 mV
Output current resolution	2 mA
Output voltage ripple + noise	25 mV typ. / 60 mV max.
Voltage set-point accuracy	±20 mV typ. / ±80 mV max.

Input Power

DC ^[b]	18 – 32 Vdc
1PH	102 – 265 Vac, 48 – 440 Hz
3PH	75 – 145 Vac (L-N) 130 – 250 Vac (L-L) 48 – 440 Hz

28 Vdc Main Bus

Overvoltage	28 Vdc, ±1
Overcurrent	100 A

^[b] Max. system power reduced to $V_{in} \times 100$ A for DC input