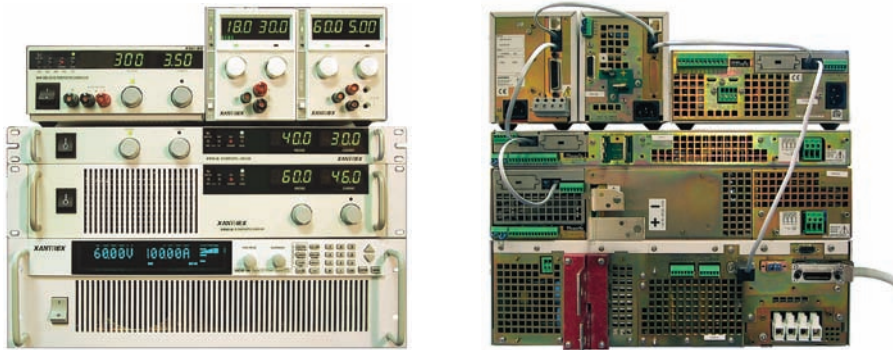# GPIB-M Multichannel Interface

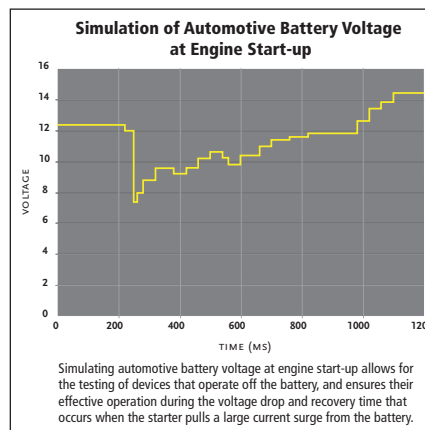## Digital Interface For Multiple Unit Programming, Control, and Auto Sequencing

Front and rear views of a Xantrex XDC 6 kW, XFR 2.8 kW and 1.2 kW, XHR 1 kW, XPD 500 W, and an HPD 300 W configured with GPIB-M.

Conveniently Connects Multiple Units

The Xantrex GPIB-M multichannel interface is a full-featured, IEEE 488.2 SCPI compatible interface option usable with all Xantrex programmable DC power supplies from 60 W to 12 kW. GPIB-M offers the flexibility to remotely control up to 50 supplies - each with a GPIB-M or CANbus communications link installed - by multichannel addressing from a single GPIB address.

Provides Auto Sequence Capability

GPIB-M uses the functionality from the Xantrex Digital Controlled power supply (XDC Series) and makes it available for other Xantrex products - the XFR, XHR, XPD, HPD, and XT Series. The auto sequencing capability enables test sequences, which have been programmed externally via GPIB, to be launched with a GPIB command. Up to ten different test programs, each with up to 99 voltage level steps ranging from milliseconds to days, can be executed by a GPIB command or an external trigger. This sequencing capability can be used for a variety of applications including constructing simple voltage ramps, battery charging and simulation of battery voltage at engine start-up, component testing, and MIL 704E testing.

Simulation of Automotive Battery Voltage at Engine Start-up

Simulating automotive battery voltage at engine start-up allows for the testing of devices that operate off the battery, and ensures their effective operation during the voltage drop and recovery time that occurs when the starter pulls a large current surge from the battery.

Product Features

▸ High speed 16-bit programming and readback of voltage and current
▸ Programmable soft limits for voltage and current
▸ Software calibration
▸ Programmable auxiliary status lines
▸ Local Lockout capability
▸ Remote interlock and trigger lines
▸ Selectable standby, programmed sequence and other power-on defaults
▸ Extensive SCPI command set for control and status monitoring
▸ Support of legacy Xantrex GPIB commands

Protection Features

▸ Programmable over voltage, under voltage, and current protection
▸ Shutdown or warning for over/under-programmed trip points

GPIB-M Multichannel Interface

Digital Interface For Multiple Unit Programming, Control, and Auto Sequencing

Typical Specifications With GPIB-M or CANbus Installed

XFR 2.8 kW

		7.5-300	12-220	20-130	33-85	40-70	60-46	100-28	150-18	300-9	600-4
Program Resolution	Voltage (mV)	0.13	0.2	0.34	0.55	0.67	1.01	1.68	2.52	5.04	10.1
	Current (mA)	5.04	3.69	2.18	1.50	1.17	0.77	0.47	0.3	0.15	0.07
Program Accuracy	Voltage (mV) (0.2% + 10 mV)	25	34	50	76	90	130	210	310	610	1210
	Current (mA) (0.3% +10 mA)	910	670	400	265	220	148	94	64	37	22
Readback Resolution	Voltage (mV)	0.13	0.2	0.34	0.55	0.67	1.01	1.68	2.52	5.04	10.1
	Current (mA)	5.04	3.69	2.18	1.50	1.17	0.77	0.47	0.3	0.15	0.07
Readback Accuracy	Voltage (mV) (0.2% + 20 mV)	35	44	60	86	100	140	220	320	620	1220
	Current (mA) (0.3% +20 mA)	920	680	410	275	230	158	104	74	47	32

XFR 1.2 kW

		6-200	7.5-140	12-100	20-60	35-35	40-30	60-20	100-12	150-8	300-4	600-2
Program Resolution	Voltage (mV)	0.10	0.13	0.2	0.34	0.59	0.67	1.01	1.68	2.52	5.04	10.1
	Current (mA)	3.36	2.35	1.68	1.01	0.59	0.5	0.34	0.2	0.13	0.07	0.03
Program Accuracy	Voltage (mV) (0.2% + 10 mV)	22	25	34	50	80	90	130	210	310	610	1210
	Current (mA) (0.3% +10 mA)	610	430	310	190	115	100	70	46	34	22	16
Readback Resolution	Voltage (mV)	0.10	0.13	0.2	0.34	0.59	0.67	1.01	1.68	2.52	5.04	10.1
	Current (mA)	3.36	2.35	1.68	1.01	0.59	0.5	0.34	0.2	0.13	0.07	0.03
Readback Accuracy	Voltage (mV) (0.2% + 20 mV)	32	35	44	60	90	100	140	220	320	620	1220
	Current (mA) (0.3% +20 mA)	620	440	320	200	125	110	80	56	44	32	26

XHR 1 kW

		7.5-130	20-50	33-33	40-25	60-18	100-10	150-7	300-3.5	600-1.7
Program Resolution	Voltage (mV)	0.13	0.34	0.55	0.67	1.01	1.68	2.52	5.04	10.1
	Current (mA)	2.18	0.84	0.55	0.42	0.3	0.17	0.12	0.06	0.03
Program Accuracy	Voltage (mV) (0.2% + 10 mV)	25	50	76	90	130	210	310	610	1210
	Current (mA) (0.3% +10 mA)	400	160	109	85	64	40	31	21	15
Readback Resolution	Voltage (mV)	0.13	0.34	0.55	0.67	1.01	1.68	2.52	5.04	10.1
	Current (mA)	2.18	0.84	0.55	0.42	0.3	0.17	0.12	0.06	0.03
Readback Accuracy	Voltage (mV) (0.2% + 20 mV)	35	60	86	100	140	220	320	620	1220
	Current (mA) (0.3% +20 mA)	410	170	119	95	74	50	41	31	25

XPD 500 W

		7.5-67	18-30	33-16	60-9	120-4.5
Program Resolution	Voltage (mV)	0.13	0.30	0.55	1.01	2.01
	Current (mA)	1.12	0.50	0.27	0.15	0.08
Program Accuracy	Voltage (mV) (0.2%+10 mV)	25	46	76	130	250
	Current (mA) (0.3%+10 mA)	211	100	58	37	23.5
Readback Resolution	Voltage (mV)	0.13	0.30	0.55	1.01	2.01
	Current (mA)	1.12	0.50	0.27	0.15	0.08
Readback Accuracy	Voltage (mV) (0.2%+20 mV)	35	56	86	140	260
	Current (mA) (0.3%+20 mA)	221	110	68	47	33.5

HPD 300 W and XT 60 W

		HPD	15-20	30-10	60-5	XT	7-6	15-4	20-3	30-2	60-1	120-0.5	250-0.25
Program Resolution	Voltage (mV)		0.25	0.5	1.01		0.12	0.25	0.34	0.5	1.01	2.01	4.2
	Current (mA)		0.34	0.17	0.08		0.1	0.07	0.05	0.03	0.02	0.01	0.01
Program Accuracy	Voltage (mV) (0.2%+10 mV)		40	70	130		24	40	50	70	130	250	510
	Current (mA) (0.3%+10 mA)		70	40	25		28	22	19	16	13	11.5	10.8
Readback Resolution	Voltage (mV)		0.25	0.5	1.01		0.12	0.25	0.34	0.5	1.01	2.01	4.2
	Current (mA)		0.34	0.17	0.08		0.1	0.07	0.05	0.03	0.02	0.01	0.01
Readback Accuracy	Voltage (mV) (0.2%+20 mV)		50	80	140		34	50	60	80	140	260	520
	Current (mA) (0.3%+20 mV)		80	50	35		38	32	29	26	23	21.5	21

Note: Specifications subject to change without notice.