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Prad-II Instrumentation Communication Ports Map and I/O Sensors Connections															
#	Variable Monitored/ Controlled	Instrument/Controller	Connector Label	Serial/GPIB	Baud Rate	Parity	Serial-USB Box Channel #	Serial-USB LED Color	SPFDOBRENZ-PC Com Port # (NIMAX)	LabVIEW Program to Config Comm Port	Instrument I/O Port/Channel connected	Available Instrument I/O Port/Channel	Comms Test Pass	Notes	Test Status
1	Vacuum pressure	937B MKS GC	MKS-937B	RS-232	9600	Even	6	Red	7	CONFIG_devices.vi	Cold Cathode Module	Channel 1 and 2 Pirani gauges Cold cathode module	OK	Must be on 937A serial comms protocol, commands are different, address 0, char return \r not required on LabVIEW program	Completed
2	Chamber temperature	218 LakeShore TC	LS218	GPIB	N/A	N/A	N/A	N/A	USB:GPIB0::12::INSTR		Inputs 1-4	Serial I/O, Inputs 1-4, Inputs 1-8	OK	Both controllers are connected via GPIB. Previously connected GPIB-USB-	Completed
3	Cell temperature, and Heater Controls	336 LakeShore TC	LS336	GPIB-USB	N/A	N/A	N/A	N/A	USB:GPIB0::25::INSTR		None	Inputs A to D, Output 1 Heater, Output 2 Heater	OK	B adapter was obsolete/not supported. Borrowed GPIB-USB-HS+ adapter from HDice project	Completed
4	Motion 4 motors	Netcontrols MC	NC MOTOR	RS-485	38400	Even	1	Orange	8		Motor 1-5, Active Sensor Inputs 1-5	Motor 1-5, Active Sensor Input 1-5	OK		Completed
5	Pressure Cel/Chamber	PDR200A MKS Manometer	PDRRS232	RS-232	9600	None	4	Red	4		Sensors, Analog Out, Relays	Sensors, Analog Out, Relays	OK	Status indicator sometimes goes bad	Completed
6	Pressure, EV, Switch Status for Gas Pannel,	NI USB-6001	USB-6001	USB	N/A	N/A	N/A	N/A	USB:NI-6001		2 Differential AI, 7 DI, 2 DO	8 AI Single Ended, 4 Differential AI, 2 AO, 13 Digital I/O	OK	Read DI/O for Evs, Int status and AI for PT. Goes to Aux Box first	Completed
7	Gas Fill	MKS MFC-GE50-V010	MKS-MFC	RS-485	9600	None	2	Orange	9		Power-Sensor I/O	Power-Sensor I/O	OK		Completed
8	Vacuum root pumps and temperatures	Adixen A803h	A803H	RS-232	9600	None	7	Red	10		J1, J14, J6	J1,J14, J4, J6,J7	OK	Requires stops bits =2	Completed
9	PTR On/Off and Error Status	Cryomech-Pulse Tube Refrigerator	PTR	RS-232	TBD	TBD	5	Red	6		System I/O, Cold Head Power	System I/O, Cold Head Power	FAULTS	Connected serial cable, looking for device address, and serial configurations	In progress