DSG-NPS R&D Meeting Minutes

Date: January 31, 2023
Time: 02:00PM – 03:30PM

Attendees: Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran

1. Thermal readback

Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, and Tyler Lemon

1. Reviewed troubleshooting instructions
2. Developing error handling to be included in both LabVIEW program and Phoebus screens
   - Sending *IDN? serial command to Keysight mainframe at beginning of loop
   - Solving how to indicate which multiplexer generated an error

2. Hardware

Aaron Brown, Mindy Leffel, Tyler Lemon, and Marc McMullen

1. Mindy has fabricated three of 12 Keysight extension cables; Tyler and Aaron are testing cables as they are completed

	No Cable					*Pin 1 of Cable*				
	Input Voltage		**Output Voltage**		**Absolute Difference**	**Input Voltage**		**Output Voltage**		**Absolute Difference**
Set Voltage	*Average*	*Std Dev*	*Average*	*Std Dev*	**of Averages**	*Average*	*Std Dev*	*Average*	*Std Dev*	**of Averages**
0.1 V	0.0777	0.118181	-0.18808	0.095299	0.26578	0.064	0.116172	-0.19206	0.091679	0.25606
0.2 V	0.13904	0.129444	-0.1259	0.110242	0.26494	0.14344	0.127094	-0.11042	0.113117	0.25386
0.3 V	0.22394	0.139624	-0.03488	0.106054	0.25882	0.23138	0.140554	-0.0225	0.103353	0.25388
0.4 V	0.3197	0.150559	0.03794	0.103482	0.28176	0.31568	0.148169	0.03308	0.101753	0.2826
0.5 V	0.41992	0.158023	0.10404	0.129428	0.31588	0.43122	0.157903	0.1078	0.129256	0.32342
0.6 V	0.51686	0.156881	0.19458	0.143717	0.32228	0.5478	0.155625	0.18742	0.14474	0.36038
0.7 V	0.62682	0.151488	0.29034	0.14809	0.33648	0.65034	0.149686	0.29724	0.148622	0.3531
0.8 V	0.71486	0.146653	0.38826	0.144313	0.3266	0.72626	0.147914	0.36872	0.143658	0.35754
0.9 V	0.81546	0.144267	0.48438	0.150798	0.33108	0.8371	0.146081	0.48944	0.151817	0.34766
1 V	0.9193	0.151167	0.58394	0.160231	0.33536	0.9247	0.153928	0.59366	0.160386	0.33104
2 V	1.94894	0.163771	1.59686	0.157867	0.35208	1.94142	0.163549	1.58312	0.158351	0.3583
3 V	2.94352	0.142639	2.61142	0.144781	0.3321	2.9377	0.141629	2.61904	0.146333	0.31866
4 V	3.93212	0.148406	3.60056	0.146914	0.33156	3.93492	0.146685	3.60248	0.144478	0.33244
5 V	4.97426	0.164722	4.6188	0.158033	0.35546	4.96378	0.166337	4.64638	0.158205	0.3174
6 V	6.01464	0.138772	5.67648	0.155791	0.33816	5.99686	0.139808	5.66604	0.156406	0.33082
7 V	6.97786	0.158751	6.63996	0.150051	0.3379	6.95158	0.156982	6.62328	0.148493	0.3283
8 V	7.99816	0.147853	7.65992	0.153706	0.33824	7.98198	0.150011	7.63638	0.152815	0.3456
9 V	9.04434	0.155531	8.69408	0.162422	0.35026	9.0341	0.156873	8.67686	0.160949	0.35724
10 V	10.02094	0.160067	9.71114	0.148983	0.3098	9.99002	0.15814	9.68578	0.148236	0.30424

Screenshot of Excel spreadsheet of extension cable testing results