

Module Q/C & Reception Test Portal

Module Q/C General Information

- Inner System module [Q/C taskforce test specification document](#)
- Indico Meetings: [Module WG](#), [RD53 testing](#), [DAQ readout/DCS](#)
- Mattermost: <https://mattermost.web.cern.ch/itkpixel/>
- [RD53 main site](#)
 - [RD53A testing](#), [RD53A manual](#), [RD53A Single Chip Card \(SCC\)](#)
 - [RD53B testing](#), [RD53B manual](#), [RD53B Single Chip Card \(SCC\)](#)
- [ITk Pixel Module Twiki Portal](#)
- Module design info:
 - [Planar sensor FDR](#)
 - [Hybridization FDR](#)
 - Module Interface ICD: [AT2-IP-MG-0006](#)
 - [RD53a quad hybrid design](#)
 - [ITkPix Quad hybrid](#)
 - [ITkPix L0 Triplet hybrid](#)
 - [ITkPix R0 Triplet hybrid](#)
 - [ITkPix R0.5 Triplet hybrid](#)
- [Module carriers](#)
- ITkPix Test adaptors
 - Triplet
 - [Repo of integrated triplet adaptor cards and pigtails](#)
 - Quad:
 - [Quad readout adaptor](#)
 - [Quad power adaptor](#)
 - [Quad data pigtail](#)
 - [Quad power pigtail](#)

Module Testing Infrastructure

- Module Visual Inspection Setup
- Module Test LV/HV Control Setup:
 - [Keithley 2400 HV individual module test setup](#) (student lab)
 - [Agilent E3646A LV individual module test setup](#) (student lab)
- Fan Cooling Setups for SCC and Modules
- [Module Q/C insulated package and chiller cooling setup](#)
- [B33 test setup component status](#)
- Database
 - [LBNL module test LocalDB](#)

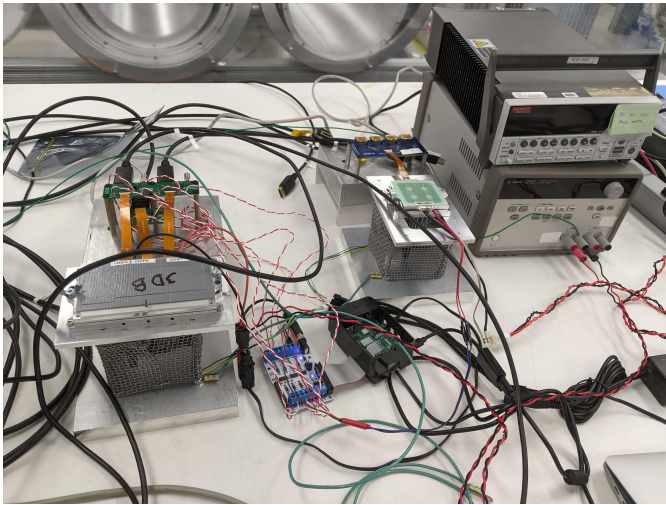
Module Testing Readout Instructions

- DAQ platform independent instructions (GUI, test navigation)
 - [RD53A SCC Jumper Setup](#)
 - [Travelling module RD53 SCC testing procedure](#) (including info on voltage trimming)
- SLAC Local DAQ platform specific information: [RCE](#), [YARR](#), [FELIX](#)
- [Triplet test instructions from Elodie Essegue \(LBNL\)](#)

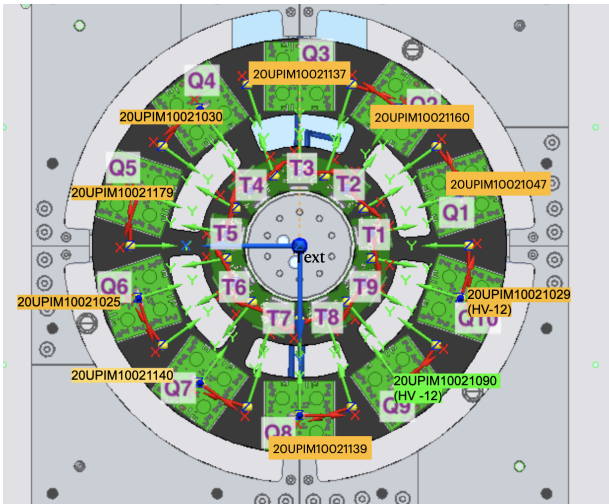
19-1 testing and loading

[worksheet for 19-1 testing and loading](#)

>>>>>> Module Reception Procedure for 19-1 <<<<<<



Module Inventory and Reception Results for 19-1



Module Inventory

RD53A SCC

Board	Chip ID	Sensor Type	Comments
12	0x75A	NONE	
149	0x0B88	MPP W4-5-50x50, 100um, PT	Readout errors never cleared since assembly
150	0x0A97	MPP W9-3-25x100, 150um, No PT	
151	0x0B53	MPP W6-5-50x50, 150um, PT	Chip zapped at SLAC
343	0x032A	NONE	
352	0x0334	NONE	

RD53 database information on sensors at SLAC: <https://rd53db.web.cern.ch/rd53db/rd53a/mysite.fcgi/rd53a-chip/loc?id=SLAC>

ITkPixV1 SCC

Board	Chip ID	Sensor Type	Date at SLAC	Comments
	0x10175	NONE	Oct/2020	

RD53 A Modules

ID	Type	Sensor Type	Chip 1	Chip 2	Chip 3	Chip 4	Date at SLAC	Comments
20UPGMC 0210121	Quad	NONE	1F49	1F52	1F65	1F76	Jul/2020	Chip 1,4 defective so Vin wire bonds removed for them. Expects 2.2A and measure 1.55V across module. V3.6 RD53A hybrid . More details from Aleksandra in Quad-20UPGMC0210121.docx .
20UPGMC 0210119	Quad	NONE						
"3DB"	Linear Triplet	3D	2144	2151	2142	-	Oct/2021	
Carrier "Genova"	Linear Triplet	NONE	426B	4298	4299	-	Oct/2021	
Pseudo quad "1105"	Pseudo Triplet	NONE	1F93	1F68	1F43	-	Oct/2021	

Pre-production and production module reception test

Reception setup

LocalDB and ProductionDB

Readout