

# 2021 Module Production



The detector layer convention uses 1-7.

## Layer 0

| Module ID | Stereo (Half-Module ID) | Axial (Half-Module ID) | Assembled | Surveyed | Goodness (stereo /axial) | Mounted | Assignment | Notes (Stereo & Axial) |
|-----------|-------------------------|------------------------|-----------|----------|--------------------------|---------|------------|------------------------|
| 6         | 3                       | 6                      |           |          |                          |         | 1T         | FEB0 Hybrids 1 & 0     |
| 7         | 2                       | 4                      |           |          |                          |         | 1B         | FEB1 Hybrids 3 & 2     |
| 8         | 10                      | 7                      |           |          | Not terrible/Not great   |         |            |                        |
| 9         | 8                       | 9                      |           |          |                          |         | 2B         | FEB1 Hybrids 0 & 1     |
| 4         | 1                       | 5                      |           |          |                          |         | 2T         | FEB0 Hybrids 3 & 2     |

## L1 - L3

| Module ID | Stereo (Half-Module ID) | Axial (Half-Module ID) | 2014 Goodness (stereo/axial)                                                            | 2019 Goodness (stereo/axial)                                                                                     | 2021 Goodness (stereo/axial)                       | Assignment | Notes (stereo & axial) |
|-----------|-------------------------|------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------|------------------------|
| 0         | 24                      | 9                      | Bad channels in 2 APVs furthest from beam                                               | Couldn't communicate with APV                                                                                    |                                                    |            |                        |
| 1         | 26                      | 28                     | Perfect                                                                                 | Perfect/Perfect                                                                                                  |                                                    |            |                        |
| 2         | 23                      | 25                     | Perfect                                                                                 | Perfect/Bad channels in second APV furthest from the beam                                                        | Few bad channels in middle/broken                  | Spare      |                        |
| 3         | 5                       | 8                      | Perfect                                                                                 | Bad channels in APV farthest from the beam /Perfect                                                              |                                                    | T3         | FEB2 Hybrids 1 & 0     |
| 4         | 16                      | 1                      | Perfect                                                                                 | Perfect/Couldn't communicate with an APV                                                                         |                                                    |            |                        |
| 5         | 2                       | 13                     | Bad channels in APV furthest from beam                                                  | Several bad channels on APV farthest from the beam                                                               | Bad channels on edge/very bad                      | Spare      |                        |
| 6         | 22                      | 29                     | Perfect/Bad channel in APV furthest from beam                                           | Perfect/Bad channel in APV furthest from the beam                                                                |                                                    | T4         | FEB2 Hybrids 2 & 3     |
| 7         | 14                      | 21                     | Bad channels in 2 APVs furthest from beam; Bad hinge fit, drilled out and sanded to fit | Bad channels in APV closest to the beam/Bad channels in second APV furthest from the beam                        |                                                    |            |                        |
| 8         | 7                       | 3                      | Bad channels in APV furthest from beam                                                  | Bad channels in APV furthest from the beam/ Bad channel in APV furthest from the beam                            |                                                    | B3         | FEB3 Hybrids 2 & 3     |
| 9         | 15                      | 19                     | Weird noise shape/Bad channel in APV furthest from beam (warm runs only)                | Weird noise vs channel distribution. Response looks fine (from 2014 runs)./Bad channel in APV furthest from beam | Good (few bad in middle)/ Good (few bad in middle) | B4         | FEB3 Hybrids 0 & 1     |

Everything Below here is a just a copy of 2019 for now

## L5 - L7

| Module ID | Stereo (Half-Module ID) | Axial (Half-Module ID) | 2014 Goodness                                                        | Re-Tested    | Goodness (stereo/axial)  | Re-Mounted | Assignment |
|-----------|-------------------------|------------------------|----------------------------------------------------------------------|--------------|--------------------------|------------|------------|
| 0         | 4                       | 19                     | bad channels in middle APVs                                          | 5/11/19 (CB) | good/A hybrid flaky      |            |            |
| 7         | 15                      | 14                     | bad channels in APV furthest from beam/perfect                       | 5/11/19 (CB) | good/good                | yes        | 7B         |
| 8         | 1                       | 13                     | bad channels on both edges/bad channels in 2 APVs furthest from beam | 5/11/19 (CB) | good/B hybrid flaky sync |            |            |
| 3         | 9                       | 4                      | perfect                                                              |              |                          | yes        | 7T         |
| 1         | 5                       | 6                      | perfect                                                              |              |                          | untouched  | 5B         |
| 2         | 7                       | 8                      | perfect                                                              | 5/10/19 (CB) |                          | untouched  | 6B         |

|                                            |     |     |         |                 |                                                                    |           |    |
|--------------------------------------------|-----|-----|---------|-----------------|--------------------------------------------------------------------|-----------|----|
| 4                                          | 2   | 3   | perfect | 5/10/19<br>(CB) |                                                                    | untouched | 5T |
| 5                                          | 10  | 11  | perfect | 5/10/19<br>(CB) |                                                                    | untouched | 6T |
| broken sensor<br>hole side (not<br>broken) | N/A | N/A | N/A     | 8/12/21<br>(AS) | looks OKAY<br><a href="#">noise/adcs</a>                           |           |    |
| broken sensor<br>slot side<br>(broken)     | N/A | N/A | N/A     | 8/12/21<br>(AS) | Some hybrid channels<br>seem damaged<br><a href="#">noise/adcs</a> |           |    |
| Hybrid 100                                 | N/A | N/A | N/A     | 8/12/21<br>(AS) | <a href="#">One high noise<br/>channel</a><br><a href="#">adcs</a> |           |    |
| Hybrid 101                                 | N/A | N/A | N/A     | 8/12/21<br>(AS) | <a href="#">One high noise<br/>channel</a><br><a href="#">adcs</a> |           |    |

| Half-Module<br>ID        | Goodness (Hole)                                                                | Goodness<br>(Slot)                     | Assignment               | Notes                                                                                   |
|--------------------------|--------------------------------------------------------------------------------|----------------------------------------|--------------------------|-----------------------------------------------------------------------------------------|
| Alpha                    | <a href="#">4/5 APVs</a>                                                       | <a href="#">5/5 APVs</a>               |                          | Originally Module 0, axial                                                              |
| Beta                     | <a href="#">5/5 APVs</a>                                                       | <a href="#">5/5 APVs</a>               | L5B Stereo<br>(08/26/21) | Recovered slot side by replacing trigger fan out + wiping with alcohol wipe             |
| Gamma                    | <a href="#">5/5 APVs</a>                                                       | <a href="#">4/5 APVs</a>               | L7B Axials<br>(08/26/21) | Recovered hole side by replacing clock fan out!                                         |
| Boh!<br>(broken sensor)  | <a href="#">5/5 APVs</a><br>Low noise on one APV<br>(broken sensor<br>removed) | <a href="#">5/5 APVs</a><br>has sensor |                          | This half-module had a broken sensor that was removed from the carbon. Not yet replaced |
| Pezzo<br>(broken sensor) | <a href="#">5/5 APVs</a><br>(broken sensor<br>removed)                         | <a href="#">5/5 APVs</a><br>has sensor |                          |                                                                                         |

Module 3 was removed from 6B and the module 0 stereo half-module was mounted to module 3 axial by Tim in the hps alcove. Module 3 was not re-tested before going into 6T.

Find 4-6 half-module QA here: [L4-L6 Half-Module Production](#)