

| Target Module with Target Check |                |                          |
|---------------------------------|----------------|--------------------------|
| Document-75583                  | Release No. 01 | Release Date: 2013-03-25 |

### 4.2 TM4 SIS with Target and No External Connections

|  |  |
|--|--|
| Shunts installed and tightened E-F-G-H-T-J-RFQ(H)  |  |
| FEBIAD coil shunts installed and tightened P-Q-R-U |  |

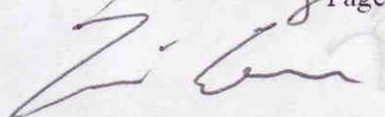
|                    | Ohm Meter Check |                 |                |                |        |
|--------------------|-----------------|-----------------|----------------|----------------|--------|
|                    | Target (ABCD)   | Einzel Lens (Y) | 60kV Com (T)   | Chassis        | EE (I) |
| Magnet Coil (U, Q) |                 |                 |                |                |        |
| Anode (H)          |                 |                 |                |                |        |
| 60kV Common (T)    | OL<br>Infinite  | OL<br>Infinite  |                |                |        |
| Chassis            | OL<br>Infinite  | OL<br>Infinite  | OL<br>Infinite |                |        |
| EE (I)             | OL<br>Infinite  | OL<br>Infinite  | OL<br>Infinite | OL<br>Infinite |        |
| Einzel Lens (Y)    | OL<br>Infinite  |                 |                |                |        |

|                 | Megger Check (all @ 500V unless otherwise noted) |                        |                   |                |        |
|-----------------|--|------------------------|-------------------|----------------|--------|
|                 | Target (ABCD)                                    | Einzel Lens (Y)        | 60kV Com (T)      | Chassis        | EE (I) |
| Anode (H)       |  |                        |                   |                |        |
| 60kV Common (T) | 426KΩ<br>Infinite                                | OL<br>Infinite         |                   |                |        |
| Chassis         | 725MΩ<br>Infinite @ 1000V                        | OL<br>Infinite @ 1000V | 702MΩ<br>Infinite |                |        |
| EE (I)          | OL<br>Infinite                                   | OL<br>Infinite         | OL<br>Infinite    | OL<br>Infinite |        |
| Einzel Lens (Y) | OL<br>Infinite                                   |                        |                   |                |        |

| Conductance Check [mΩ] |       |       |       |       |       |
|------------------------|-------|-------|-------|-------|-------|
| A - B                  | A - C | A - D | B - C | B - D | C - D |
| 7.680                  | 4.698 | 4.708 | 6.734 | 6.739 | 3.693 |
| < 5.7                  | < 6.8 | < 5.3 | < 6.8 | < 5.3 | < 5.5 |

|                   |                      |               |                    |
|-------------------|----------------------|---------------|--------------------|
| Backg. leak rate: | $4.6 \times 10^{-9}$ | HS leak rate: | No response        |
| [atm-cc/s]        | < 5E-9               | [atm-cc/s]    | < Backg. leak rate |

|                          |                      |
|--------------------------|----------------------|
| Target: RFQ SiC # 28     | Date: March 26, 2013 |
| Location: SHC CS SHCpost | Signature:           |

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|   | Expected | ohm                 | MEGG 250V                    |
|---|----------|---------------------|------------------------------|
| C | OL       | <del>OL</del><br>OL | OL                           |
| Z | OL       | OL                  | OL                           |
| f | OL       | OL                  | 108.6 MΩ<br><del>57 MΩ</del> |
| g | OL       | OL                  | <del>44 MΩ</del><br>36.6 MΩ  |

up to  
250V  
against  
~~gnd~~ common  
and  
each other

all other <sup>to common</sup> grounded.

- $i = 317 \Omega$   $k = 0$
- $e = 119 \Omega$   $h = 18.8 \Omega$
- $w = 416 \Omega$   $n = 0$
- $m = 108 \Omega$   $b = 3.2 \Omega$
- $j = 35 \Omega$   $a = 0$
- $d = 210 \Omega$   $X = 128.8 \Omega$
- $Y = 5.4 \Omega$

$B = 5.6 \Omega$

|       | ohm | MEGG (250) |
|-------|-----|------------|
| C → Z | OL  | OL         |
| C → f | OL  | OL         |
| C → g | OL  | OL         |
| Z → f | OL  | OL         |
| Z → g | OL  | OL         |
| f → g | OL  | 206 MΩ     |