



Target Module with Target Check		
Document-75583	Release No. 1	Release Date.: 2013/12/11

4.2 TM3/4 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 Infinite	OL Infinite			
Chassis	OL Infinite	OL Infinite	OL Infinite		
EE (I)	OL Infinite	OL Infinite	OL Infinite	OL Infinite	
Einzel Lens (Y)	OL Infinite				

	Megger Check (all @ 500V unless otherwise noted)				
	Target (ABCD)	Einzel Lens (Y)	60kV Com (T)	Chassis	EE (I)
Anode (H)					
60kV Common (T)					
Chassis	404M Infinite @ 1000V	OL Infinite @ 1000V	419M Infinite		
EE (I)	1G Infinite	OL Infinite	1G Infinite	875M Infinite	
Einzel Lens (Y)	OL Infinite				

Conductance Check [mΩ]					
A - B	A - C	A - D	B - C	B - D	C - D
5.788	5.502	5.144	4.813	4.444	4.152
4 - 5.7	5 - 6.8	4 - 5.3	5 - 6.8	4 - 5.3	4 - 5.5

Backg. leak rate:		HS leak rate:	
[atm-cc/s]	< 5E-9	[atm-cc/s]	< Backg. leak rate

Target: S.C.# 34	Date: September 21 2016
Location: SHC CS SHCpost	Signature: TCAVE DWANG

5 Additional electrical tests for IG-LIS Target Assemblies

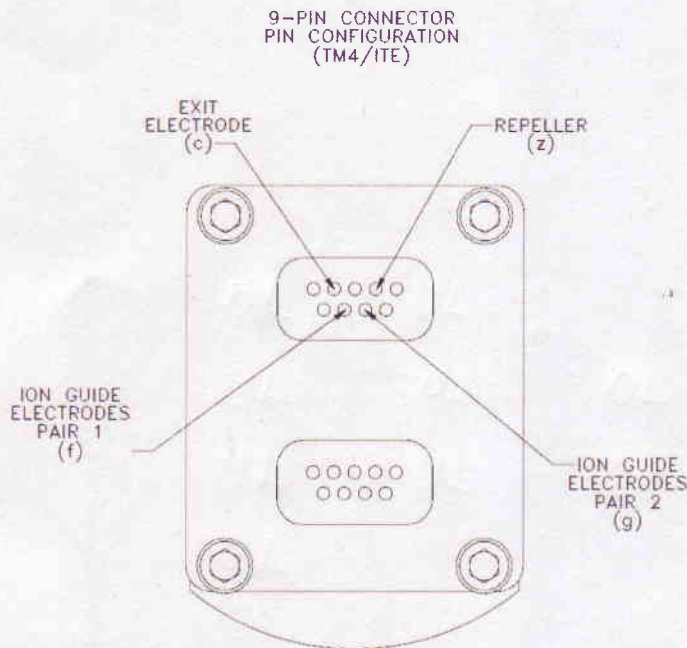


Table 1: Megger Test @500V unless otherwise noted

	Exit Electrode (c)	Repeller (z)	Ion Guide 1 (f)	Ion Guide 2 (g)
Repeller (z)	78.6M			
Ion Guide 1 (f)	436M	OK		
Ion Guide 1 (g)	105M	116M	779M	
Heat Shield (T)	395M@250	short	514M	28.4M
Target (ABCD)	4.67@500	222K		
EE (l)	OK			

All values expected to be OL.

Target: S/C # 34	Date: September 21 2016
Location: SHC CS SHCpost	Signature: TCAVE DWANG

4.2 TM3/4 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	OL			
	Infinite	Infinite			
Chassis	OL	OL	OL		
	Infinite	Infinite	Infinite		
EE (I)	OL	OL	OL	OL	
	Infinite	Infinite	Infinite	Infinite	
Einzel Lens (Y)	OL				
	Infinite				

Megger Check (all @ 500V unless otherwise noted)					
	Target (ABCD)	Einzel Lens (Y)	60kV Com (T)	Chassis	EE (I)
Anode (H)					
60kV Common (T)					
Chassis	260K	OL			
	Infinite	Infinite			
EE (I)	430M	OL	426M		
	Infinite @ 1000V 500	Infinite @ 1000V 500	Infinite		
Einzel Lens (Y)	1G	OL	1G	955M	
	Infinite	Infinite	Infinite	Infinite	

Conductance Check [mΩ]						
A - B	A - C	A - D	B - C	B - D	C - D	
5.941	5.058	4.637	5.066	4.638	4.283	
4 - 5.7	5 - 6.8	4 - 5.3	5 - 6.8	4 - 5.3	4 - 5.5	

Backg. leak rate:	HS leak rate:
[atm-cc/s]	[atm-cc/s]
< 5E-9	< Backg. leak rate

Target: LP SiC #34	Date: September 22 2016
Location: (SHC) CS SHCpost	Signature: T CAVE

D WANG

5 Additional electrical tests for IG-LIS Target Assemblies

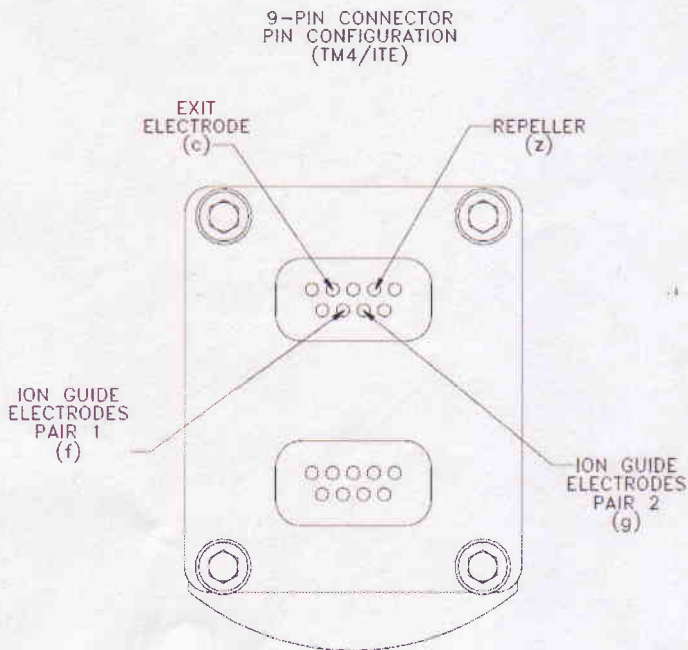


Table 1: Megger Test @500V unless otherwise noted

	Exit Electrode (c)	Repeller (Z)	Ion Guide 1 (f)	Ion Guide 2 (g)
Repeller (Z)	OL@500V			
Ion Guide 1 (f)	OL@500V	OL@500V		
Ion Guide 1 (g)	170M@500V	100M@500V	850M@500V	
Heat Shield (T)	223K	OL@250V	453M@500V	32.5M@500V
Target (ABCD)		OL@250V		
EE (I)	OL			

All values expected to be OL.

Target: LP SIC # 34	Date: September 22 2016
Location: SHC CS SHCpost	Signature: T CAVE

D WANG

4.2 TM30 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 Infinite	OL Infinite			
Chassis	OL Infinite	OL Infinite			
EE (I)	OL Infinite	OL Infinite	OL Infinite	OL Infinite	
Einzel Lens (Y)	OL Infinite				

Megger Check (all @ 500V unless otherwise noted)					
	Target (ABCD)	Einzel Lens (Y)	60kV Com (T)	Chassis	EE (I)
Anode (H)					
60kV Common (T)					
Chassis	OL Infinite @ 1000V	OL Infinite @ 1000V	OL Infinite		
EE (I)	OL Infinite	OL Infinite	OL Infinite		
Einzel Lens (Y)	OL Infinite				

Conductance Check [mΩ]						
A - B	A - C	A - D	B - C	B - D	C - D	
5.873	5.596	5.162	5.029	4.592	4.289	
4 - 5.7	5 - 6.8	4 - 5.3	5 - 6.8	4 - 5.3	4 - 5.5	

Backg. leak rate:	0.0x10 ⁻⁹	HS leak rate:	0.0x10 ⁻⁹
[atm-cc/s]	< 5E-9	[atm-cc/s]	< Backg. leak rate

Target: SiC #34	Date: September 23, 2016
Location: SHC (CS) SHCpost	Signature: TCAVE, DWANG

5 Additional electrical tests for IG-LIS Target Assemblies

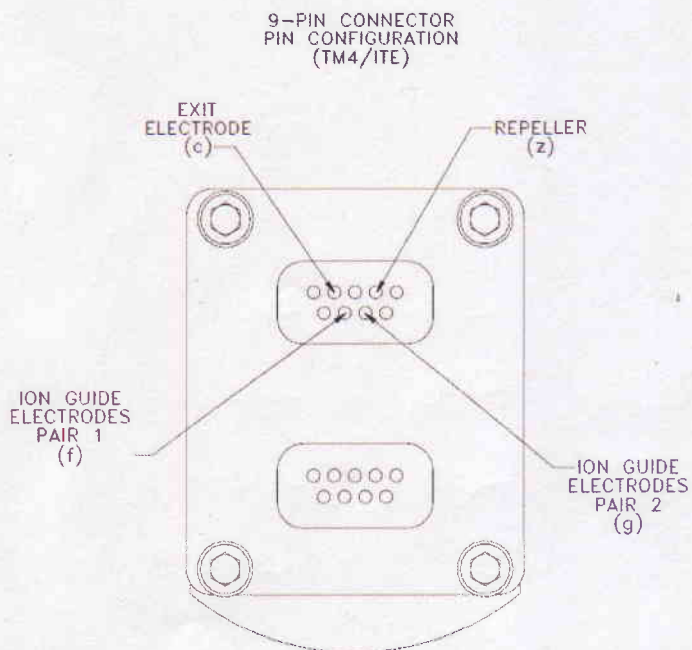


Table 1: Megger Test @500V unless otherwise noted

	Exit Electrode (c)	Repeller (z)	Ion Guide 1 (f)	Ion Guide 2 (g)
Repeller (z)	OL			
Ion Guide 1 (f)	OL	OL		
Ion Guide 1 (g)	454M	OL	OL	
Heat Shield (T)	320M	OL	OL	30.5M
Target (ABCD)		OL		
EE (l)	OL			

All values expected to be OL.

Target: SiC #34	Date: September 23, 2016
Location: SHC (CS) SHCpost	Signature: TCAVE, DWANG