

# SEMI Staff Report

**December 2021**

**v3**

# SEMI Global 2021 Calendar of Events



Event Name	Event Details
<b>SEMICON® WEST</b>	December 7-9 San Francisco, CA/USA
<b>SEMICON® JAPAN</b>	December 15-17 Tokyo, Japan
<b>SEMICON® TAIWAN</b>	December 28-30 Taipei, Taiwan

# Standards Meetings This Week

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	6	7	8	9	10	
			3DP&I			
		EH&S				
	Facilities & Gases			ISC		
	Information & Control					
	Liquid Chemicals					
	MEMS/NEMS					
		Metrics				
	NARSC	Physical Interfaces & Carriers				

Schedule  
at-a-glance

# Upcoming NA Meetings

Event Name	Date / Venue
NA Standards Spring Meetings	March 28-31, 2022 SEMI HQ in Milpitas, California (tentative)
SEMICON West	July 11-14, 2022 San Francisco, California (tentative)
NA Fall Meetings	TBD

# Critical Dates for SEMI Standards Ballots



2021	Ballot Submission Deadline	Voting Opens	Voting Closes
Cycle 9	November 16	November 30	December 30
2022			
Cycle 1	January 5	January 19	February 18
Cycle 2	February 1	February 15	March 17
Cycle 3	March 9	March 23	April 22
.....	.....	.....	.....

<https://www.semi.org/en/collaborate/standards/ballots>

# Regulations and Procedure Manual Update



- *Regulations* (November 1, 2021)

- Bias-free terminology - provide alternative, bias-free terms or option to rewrite and eliminate sensitive terms
- Clarification of Inactive Status
- Procedures for revising global Technical Committee charter and scope

[https://www.semi.org/sites/semi.org/files/2021-11/Standards\\_Regulations\\_November\\_1\\_2021.pdf](https://www.semi.org/sites/semi.org/files/2021-11/Standards_Regulations_November_1_2021.pdf)

- *Procedure Manual* (November 1, 2021)

- Ballot procedures for Primary and Subordinate Standards
- Ratification ballot improvement - clarification of the scope of Audit and Review process review to cover in authorizing, preparing, and conducting both Letter and Ratification ballots.
- Clarifies that only Type 1 editorial changes are allowed in a reapproval ballot.

[https://www.semi.org/sites/semi.org/files/2021-11/Procedure\\_Manual\\_November\\_1\\_2021.pdf](https://www.semi.org/sites/semi.org/files/2021-11/Procedure_Manual_November_1_2021.pdf)

# Style Manual update

- Style Manual (November 1, 2021)
  - New Appendix 5
    - Table A5-1 Restricted Biased Terms with Approved, Alternative, Bias-Free Terms

<i>Restricted Biased Terms</i>	<i>Approved, Alternative, Bias-free Terms</i>
blacklist	blocklist, denylist, droplist
master	primary, main, leader, active
slave	secondary, replica, follower, standby
webmaster	web product owner
whitelist	allowlist, accesslist, permitlist

- Table A5-2 Biased Terms to Avoid with Approved, Alternative, Bias-Free Terms

[https://www.semi.org/sites/semi.org/files/2021-11/Style%20Manual%20Version%208\\_November%201%2C%202021\\_final.pdf](https://www.semi.org/sites/semi.org/files/2021-11/Style%20Manual%20Version%208_November%201%2C%202021_final.pdf)



# SEMI Standards Publications

- Total SEMI Standards in portfolio: **1,056**
  - Includes 297 Inactive Standards

Cycle	New	Revised	Reapproved	Withdrawn
August 2021	4	3	0	0
September 2021	0	5	6	0
October 2021	1	2	3	1
November 2021	3	7	7	1



# SEMI Standards Publications



- New Standards

Cycle	Designation	Title	Committee	Region
August 2021	SEMI A4.1	Specification for the Automated Test Equipment Tester Event Messaging for Semiconductors (TEMS)	Automated Test Equipment	NA
August 2021	SEMI D82	Test Method for Viewing Angle of Flat Panel Displays	FPD – Metrology	KO
August 2021	SEMI F116	Guide for Drain Segregation for Semiconductor Manufacturing Tools to Support Site Water Reuse	Liquid Chemicals	NA
August 2021	SEMI M90	Test Method for Bulk Micro Defect Density and Denuded Zone Width in Annealed Silicon Wafers by Optical Microscopy After Preferential Etching	Silicon Wafer	JA

# SEMI Standards Publications

- New Standards cont.

Cycle	Designation	Title	Committee	Region
October 2021	SEMI C103	Guide for Reporting Performance Parameters of the Chemical Mechanical Planarization (CMP) Conditioning Disks Used in Semiconductor Manufacturing	Liquid Chemicals	NA
November 2021	SEMI E183	Specification for Rich Interactive Test Database (RITdb)	Automated Test Equipment	NA
November 2021	SEMI E186	Specification for Location and Dimensions for Power Connectors and EtherCAT ports in Mass Flow Controllers and Mass Flow Meters	Gases	NA
November 2021	SEMI D74	Guide for Measuring Dimensions of Plastic Films/Substrates	FPD - Materials & Components	JA

# SEMI Standards Publications

- Inactive Standards (as of November 30, 2021)

Committee	Number of Inactive Standards
Assembly & Packaging	68
Automated Test Equipment	2
Compound Semiconductor Materials	4
Environmental Health & Safety	8
Facilities	14
FPD – Equipment	5
FPD – Factory Automation	14
FPD – Materials & Components	13
Gases	18

# SEMI Standards Publications

- Inactive Standards (as of November 30, 2021) Cont.

Committee	Number of Inactive Standards
Information & Control	37
Liquid Chemicals	26
MEMS	4
Metrics	12
Micropatterning	30
Photovoltaic	3
Physical Interfaces & Carriers	25
Silicon Wafer	12
Traceability	8

# Ongoing

- Facilities

- SEMI E51, Guide for Typical Facilities Services and Termination Matrix
  - Abolished SNARF Fall 2017 - Reapproval ballot failed Committee review, new SNARF needs to be issued to reflect change in scope
  - Searching for volunteers to lead this activity
- SEMI F47, Specification for Semiconductor Processing Equipment Voltage Sag Immunity
  - Reapproval failed committee review; Spring 2018
  - Voltage Sag Immunity TF will take over this activity
- SEMI E76-0299 (Reapproved 0913), Guide for 300 mm Process Equipment Points of Connection to Facility Services
  - Failed TC Chapter Review; Summer 2021
  - Searching for volunteers to lead this activity
- SEMI E6-0914, Guide for Semiconductor Equipment Installation Documentation
  - Failed TC Chapter Review; Summer 2021
  - Searching for volunteers to lead this activity

# Facilities 5-Year Review

Designation #	Standard Title	Action By	Assigned to
SEMI F51-0917	Guide for Elastometric Sealing Technology	Sept 2022	F51 Revision TF



# Gases: Ongoing

- Materials of Construction of Gas Delivery Systems Task Force
  - 6394: Line Item Revision to SEMI F74-1103 (Reapproved 0710), Test Method for the Performance and Evaluation of Metal Seal Designs for Use in Gas Delivery Systems
  - 6510: Line Item to SEMI F32-0211, Test Method for Determining of Flow Coefficient for High Purity Shutoff Valves
  - 6612: New Subordinate Standard: Test Method for the Determination of Conductance of Fluid Handling Components at Subatmospheric and Vacuum Pressure, to SEMI F32-0211, Test Method for Determination of Flow Coefficient for High Purity Shutoff Valves



# Gases 5-Year Review [1/3]

Designation #	Standard Title	Action By	Assigned to
SEMI C14-95 (Reapproved 0913)	Test Method for Particle Shedding Performance of 25 cm Gas Filter Cartridges	Past due	Filters & Purifiers TF
SEMI F36-0299 (Reapproved 0913)	Guide for Dimensions and Connections of Gas Distribution Components	Past due	Filters & Purifiers TF
SEMI F19-0815	Specification for the Surface Condition of the Wetted Surfaces of Stainless Steel Components	Past due	Materials TF
SEMI F21-1016	Classification of Airborne Molecular Contaminant Levels in Clean Environments	Fall 2021	Filters & Purifiers TF
SEMI F62-1016	Test Method for Determining Mass Flow Controller Performance Characteristics for Ambient and Gas Temperature Effects	Fall 2021	Mass Flow Controller TF

# Gases 5-Year Review [2/3]

Designation #	Standard Title	Action By	Assigned to
SEMI C54-1116	Specification for Oxygen	Fall 2021	Gases Specification TF
SEMI C70-1116	Specification for Tungsten Hexafluoride	Fall 2021	Gases Specification TF
SEMI C58-1116	Specification for Hydrogen	Fall 2021	Gases Specification TF
SEMI C56-1116	Specification for Dichlorosilane	Fall 2021	Gases Specification TF
SEMI F113-1116	Test Method for Pressure Transducers Used in Gas Delivery Systems	Fall 2021	Pressure Measurements TF

# Gases 5-Year Review [3/3]

Designation #	Standard Title	Action By	Assigned to
SEMI C60-0317	Specification for Nitrous Oxide	March 2022	Gases Specification TF
SEMI C59-0317	Specification for Nitrogen	March 2022	Gases Specification TF
SEMI C57-0317	Specification for Argon	March 2022	Gases Specification TF
SEMI C3-0317	Specification for Gases	March 2022	Gases Specification TF
SEMI E56-0317	Test Method for Determining Accuracy, Linearity, Repeatability, Short-Term Reproducibility, Hysteresis, and Deadband of Thermal Mass Flow Controllers	March 2022	Mass Flow Controller TF
SEMI E29-1110 (Reapproved 0417)	Terminology for the Calibration of Mass Flow Controllers and Mass Flow Meters	April 2022	Mass Flow Controller TF



# Thank You