

## IPC-CFX Mandatory and Optional Capabilities by Equipment Type – IPC-2591, v 1.5

This document lists all of the mandatory and optional IPC-CFX capabilities for equipment to be listed on the IPC-CFX QPL. Read IPC-2591 for explanations of these capabilities and messages.

### Legend

M – Required for all machines in class

MR – Required if equipped with a barcode/RFID reader

O – Optional capability

Blank – Not applicable to machine class

Category	Capability	Endpoint Class											Cleaning	
		Generic Equipment Endpoint	Automated Labeler / Laser Marker	Stencil Printer	Solder Paste Inspection (SPI)	SMT Moulder (Pick and Place)	Automated Optical Inspection (AOI/AXI)	Solder Reflow Oven	Reflow Profiling	Selective Solder	Through-Hole Component Insertion (THT)	Test Equipment		Conformal Coating
CFX Core	Core Communications	M	M	M	M	M	M	M	M	M	M	M	M	M
Track and Trace	WIP Tracking	M	M	M	M	M	M	M	M	M	M	M	M	M
	WIP Identification	MR	M	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR
	Unit Initialization	O	M	O	O	O	O	O	O	O	O	O	O	O
	Panelized Unit Initialization	O	M	O	O	O	O	O	O	O	O	O	O	O
	Operator Tracking	O	O	O	O	O	O	O	O	O	O	O	O	O
	Equipment Data Tracking	O	O	O	O	O	O	O	O	O	O	O	O	O
	Unit Disqualification / Scrapping	O	O											

## IPC-CFX Mandatory and Optional Capabilities by Equipment Type – IPC-2591, v 1.5

	Detailed Activity Tracking	0	0	0	0	0	0	0	0	0	0	0	0	0
	Material Trace with Internal Setup	0	0	0		0		0	0	0	0	0	0	0
	Exact Material Trace with Internal Setup	0				MR					MR			
	Exact Material Trace with External Setup	0				M					M			
	Tool Trace	MR	0	MR		0			0	0	0	0	0	0
Process Interlocking	Process Route Validation	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unit Status Validation	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unit Trace Validation	0	0	0	0	0	0	0	0	0	0	0	0	0
Recipes	Basic Recipe Visibility	M	M	M	M	M	M	M	M	M	M	M	M	M
	Remote Recipe Selection	0	0	0	0	0	0	0	0	0	0	0	0	0
	Remote Recipe Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Setup Validation	Internal Setup Validation	0	0	0	0	0	0	0	0	0	0	0	0	0
	Offline Setup					0					0			
	External Setup Validation	0	0	0		0					0			
Blocking and Locking	Material Blocking for External Setup	0	0	0		0					0			

## IPC-CFX Mandatory and Optional Capabilities by Equipment Type – IPC-2591, v 1.5

	Material Blocking for Internal Setup	O	O	O		O					O			
	Station Locking	O	O	O	O	O	O	O	O	O	O	O	O	O
Personalization	Unit Personalization					O					O	O		
Station Information	Station Performance Reporting	M	M	M	M	M	M	M	M	M	M	M	M	M
	Advanced Station Performance Reporting	O	O	O	O	O	O	O	O	O	O	O	O	O
	Station Configuration Management	O	O	O	O	O	O	O	O	O	O	O	O	O
	Station Maintenance Tracking	O	O	O	O	O	O	O	O	O	O	O	O	O
	Energy Consumption Tracking	O	O	O	O	O	O	O	O	O	O	O	O	O
Test and Inspection	Production Unit Inspection				M		M							
	Automated Optical Inspection (AOI/AXI)						M							
	AOI Component Offset Measurement						O							
	Solder Paste Inspection				M									
	Production Unit Test											M		

## IPC-CFX Mandatory and Optional Capabilities by Equipment Type – IPC-2591, v 1.5

Specialized Processing	Solder Paste Reflow Processing							M						
	Solder Paste Reflow Profiling								M					
	Selective Solder Processing									M				
	Solder Paste Printing			M										
	Conformal Coating												M	
	Cleaning													M