IPC CFX Process Control and Traceability

Metcal Real Time Risk Mitigation in Hand Soldering Application
**Good solder joint**

**Bad solder joint**

**Power status**

**Traceability:**
- Error status
- Metcal demo page

**Demo work station**

**Process control:** after applying solder, operator will wait until LED result indicated before starting the next joint.

**Traceability:** Metcal Connection Validation CV-5200 Power Supply
After applying solder, operator will wait until LED result indicated before starting the next joint.

GREEN LED = good joint
RED LED = bad joint

Power saving SLEEP MODE

NO ACTIVE FAULT

Check the LED status before proceeding.
After applying solder, operator will wait until LED result indicated before starting the next joint.

**GREEN LED** = good joint

**RED LED** = bad joint

**IDLE MODE**

- Idle tip temperature: 745°F
- Idle power: 16W
- Cartridge part number: CVC-7CH0025S
Solder event detected – Power is on

NO ACTIVE FAULT

Power is ON – Idle tip temperature: 709F – Idle power: 30W - Cartridge part number: CVC-7CH0025S

Good solder joint
counter = 6

After applying solder, operator will wait until LED result indicated before starting the next joint.
GREEN LED = good joint
RED LED = bad joint
IMC calculation – Power is ON

NO ACTIVE FAULT

Power is ON – Idle tip temperature: 709F – Idle power: 30W - Cartridge part number: CVC-7CH0025S

Good solder joint

counter = 6

GREEN LED
Idle power – Ready for the next joint

Idle tip temperature: 744°F

Idle power: 16W

Cartridge part number: CVC-7CH0025S

NO ACTIVE FAULT

Good solder joint

Counter = 7

LED is off
Power is on – Idle tip temperature: 725F – Idle power: 25W - Cartridge part number: CVC-7CH0025S

NO ACTIVE FAULT

IMC calculation – Power is on

Bad solder joint counter = 1

RED LED
NO ACTIVE FAULT

Power is on – Idle tip temperature: 745F – Idle power: 16W - Cartridge part number: CVC-7CH0025S

Bad solder joint counter = 2

LED is off

Idle power – Ready for the next joint
ESD event detected

Bad solder joint counter = 2