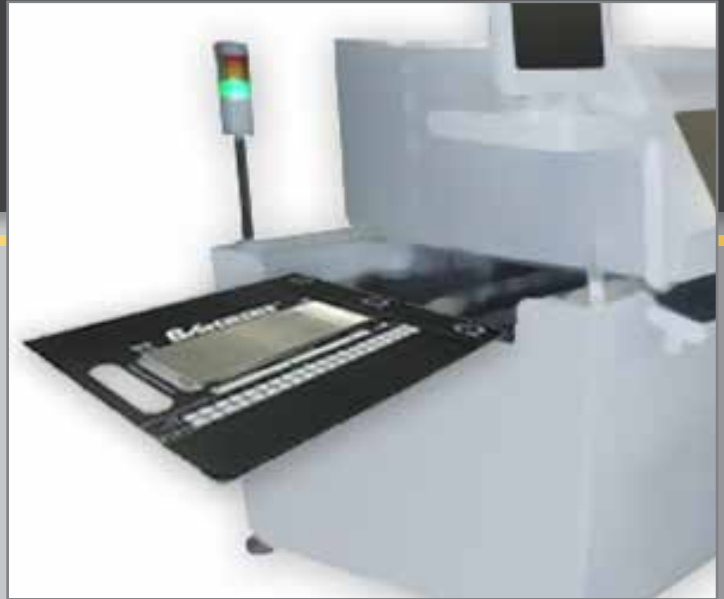


# OvenCHECKER™

Reflow Process Verification... made Easy!



ECD, the world leader in thermal profiling solutions, introduces an easy to use yet powerful tool for verifying a production reflow oven - OvenCHECKER™.

Built around ECD's award winning V-M.O.L.E.® Thermal Profiler, the OvenCHECKER™ system comes complete with the profiler, thermal barrier, pallet with 3 surface sensors and M.O.L.E.® MAP software, making it a complete solution for reflow oven verification.

[www.ecd.com/products/ovenchecker](http://www.ecd.com/products/ovenchecker)

The software interface displays reflow curves for different zones (Zone 1, Zone 2, Zone 7, Zone 8) and a data table with the following content:

Parameter	Value	Unit
Max. Internal Temperature	240	°C
Battery Voltage	4.18	V
Log Interval	1.00	s
Data Points	353	
Date - Time	07/14	
OK Target	10	N

Zone	Time Above Liquidous	Peak - Temperature
Zone 1	2.9	224.9
Zone 2	2.4	213.0
Zone 7	65.0	4.5
Zone 8	3.0	214.8

Parameter	Value	Unit
155-183C	77.6	sec
183C	69.6	sec
224.9	56.0	sec
73.0	6.8	sec
65.0	2.9	sec
76.0	3.8	sec

Sensor	Value
A1 Sensor 1	8.9
A2 Sensor 2	3.3
A3 Sensor 3	5.6



The EASIEST way known to “Verify” a reflow oven profile!



*Excellence in Measurement Solutions Worldwide*



## V-M.O.L.E.® THERMAL PROFILER

Innovative "OK Button" feature, indicating **Go/No-Go** (relative to your profile specifications) at the touch of a button



## THERMAL BARRIER

Thermal protective barrier for the V-M.O.L.E.®. Removable so it can be used for standard Thermal Profiling.



## 3 SURFACE SENSORS

Similar in profile to FR4 PCB

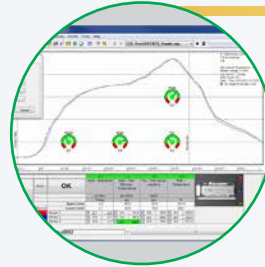


## EASY TO USE

### 1: SPECIFY ✓

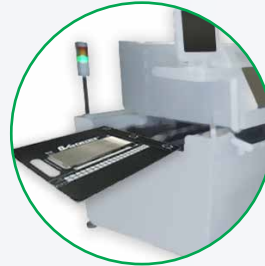
Engineer sets specifications in MAP software for profile:

- Ramp
- Soak
- TAL
- Peak



### 2: RUN ✓

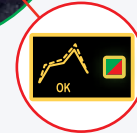
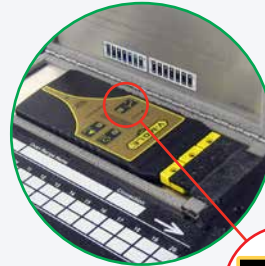
Operator sends the OvenCHECKER™ through the oven.



### 3: VERIFY ✓

Operator presses the "OK" button.

- **Green = Go**
- **Red = Stop**



## M.O.L.E.® MAP SOFTWARE

Create a Target-10™ specification file using the OvenCHECKER™ which provides:

- A simple color "Go/No-Go" test criteria
- Analog gauges for intuitive data interpretation
- Drill down Data for engineering analysis
- Configurability, so you can delegate decision-making

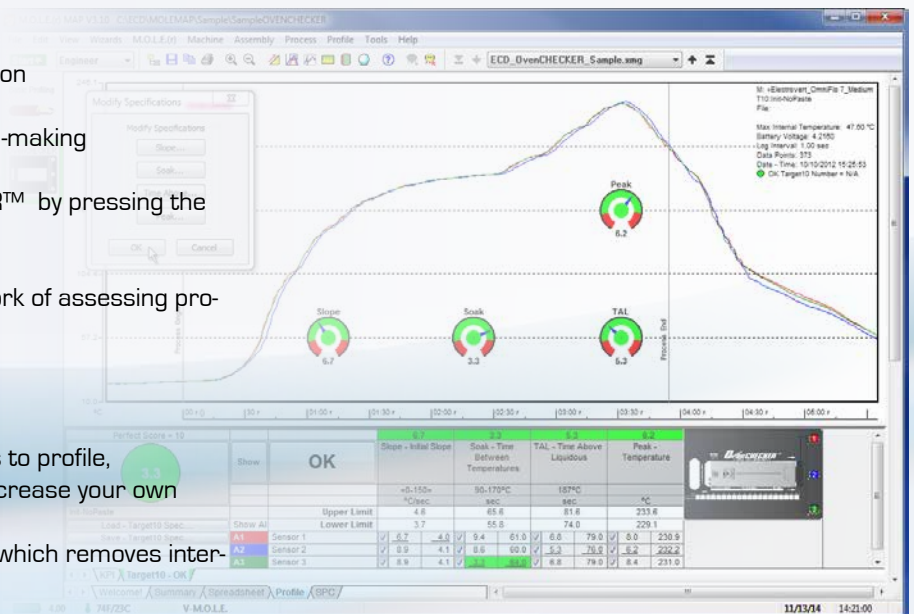
"Verify" your process using the OvenCHECKER™ by pressing the OK button.

ECD-exclusive "OK Button" makes for quick work of assessing profile to be IN or OUT of specification.

If you...

- Need to verify your oven profile,
- Need to train multiple production operators to profile,
- Need to delegate Go/No-Go decisions to increase your own productivity
- Desire easy to understand, objective data - which removes interpretation

... you need OvenCHECKER™



# SPECIFICATIONS

## PHYSICAL: OvenCHECKER™

- Length (Pallet):** 15.0in. [38.1cm]  
**Height (Thermal Barrier):** 2.54cm [1.0in.]
- 17.8mm [0.7"] above conveyor chain
  - 7.6mm [0.3"] below conveyor chain
- Width (Pallet):** 30.5cm [12in.]  
**Weight (Pallet):** 1656 grams [3.65 lbs.]  
**Pallet Surface Sensor Thickness:** 1.58mm [0.062in.]  
**Max. Operational Temperature (Pallet):** 300°C [572°F]  
**Max. Operational Temperature (Thermal Barrier):**
- 200°C [392.0°F] for 10 min.
  - 150°C [302.0°F] for 15.8 min.

## PHYSICAL: V-M.O.L.E.®

- Dimensions (L x W x H):**
- 145mm [5.7"] x 64mm [2.5"] x 7.62mm [.3"]
- Weight:**
- Profiler: 0.068 kg [2.4 oz]
- Max. Operational Range:** -40°C to +85°C [-40°F to 185°F]  
**Power Supply:** USB Rechargeable Lithium Polymer

## DATA ACQUISITION: V-M.O.L.E.®

- Sampling Interval:** 0.1 seconds to 24 hours  
**Data points:** 500,000 total for 3 channels  
**Data runs stored:** 96 (Standard Thermal Profiles)  
**Accuracy:** +/- 0.5°C [0.9°F]  
**Resolution:** 0.056°C [0.1°F]  
**Measurement range:** -200°C to 1271°C [-328°F to 2320°F]

## PATENT

U.S. PATENT No. 6,062,728; 6,375,351; 6,520,675

## WARRANTY

1 year parts and labor

## WEBSITE

[www.ecd.com](http://www.ecd.com) ➔

## SYSTEM KITS:

### OvenCHECKER™ Standard System

- 12 in. [305 mm] wide pallet
- P/N: E49-2435-02

### OvenCHECKER™ Custom System

- 7.5" to 18" [190 mm to 458 mm] wide pallet
- P/N: E49-2435-12

## KITS INCLUDE:

### OvenCHECKER™ Pallet

- Includes 3 sensors & Thermal Barrier

### V-M.O.L.E.® Profiler

- With USB rechargeable battery

### M.O.L.E.® MAP Software

### PC USB 2.0 Cable

- Set-up, Download & Charging

### Quick Reference Guide

### Carrying Box

**1 year warranty on materials and workmanship**

## OPTIONS:

**OvenCHECKER™ Pallet Kit:** Pallet, Quick Reference Guide, Carrying Box & 1 year warranty on materials and workmanship



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