T700 Thermal Platform Systems

The T700 series of thermal platform systems combines the excellent component accessibility of the T600 series with the value and compactness of the integrated temperature controller like the T650 series. Thermal platforms offer the fastest, most convenient method of testing electronic components that may be heated and cooled by direct conduction. Not only do thermal plates offer much faster thermal cycling rates than environmental chambers, but cable connections, probing and tuning of the device under test is much more easily accomplished.

Heating of the plate is provided by resistance elements and cooling by the expansion of liquid Carbon Dioxide (LCO$_2$) or liquid Nitrogen (LN$_2$) in a computer designed and CNC machined channel embedded within the platform.

Two standard sizes insure quick delivery of a plate that is well suited to your test requirements. Additional standard features include precision grinding and hard plating of plate surfaces, threaded 18-8 stainless steel 1/4"-20 inserts for fixturing and a fixed set point, latching thermal overtemperature failsafe system. All PM controllers come with Modbus RTU protocol EIA (RS)-232/485 included.

ESS offers three temperature controller options to the standard PM6 temperature controller. You can add a programmable set-point, built-in FM approved limit/alarm "product saver" or you can substitute an Ethernet/IP—Modbus TCP serial interface in place of the 2nd user device sensor. Lastly you can upgrade to the PM9 controller and get both the 2nd user device sensor or "product saver" and the Ethernet/IP - Modbus TCP serial interface.

Dry box desiccators utilizing a dry Nitrogen (GN$_2$) or very dry air purge system allow moisture and frost free testing below dew point. Ground & plated fixturing adapter plates and our universal hold down clamping arm are quick & easy ways to attach devices to our platform. Insulated supply hoses are also available.

T700 thermal platform shown with the PM6 Temperature Controller

Optional PM9 controller and IEEE/GPIB-488 shown

Precision ground aluminum alloy thermal plate
Very fast heating & cooling ramp rates
Extremely efficient cooling channel design
Corrosion proof 304 stainless steel chassis
2nd user device under test sensor
Ramp to set point & ramp & soak profiling feature
EIA(RS)-232/485 serial computer interface
Surface hard plated for extremely long wear
Optional "product saver", Ethernet or GPIB-488

Optional fixture/adapter plate and LN2 supply hose shown

T700 Thermal Platform Ordering Information

T700 __ __ __ __ __ __ __

Size
1	6.75" X 6.75" (17.15 cm X 17.15 cm)
2	11" X 11" (27.94 cm X 27.94 cm)

Controller
1	PM6 with ramp & soak profiling & 2nd user device sensor
2	PM6 as above with *FM approved integrated limit/alarm controller ("product saver")
3	PM9 with ramp & soak profiling & 2nd user device sensor
4	PM9 as above with *FM approved integrated limit/alarm controller ("product saver")

*FM (Factory Mutual)

Voltage
1	115 VAC 50/60 Hz
2	230 VAC 50/60 Hz

Coolant
1	LN_2 15-25 PSIG (1.0 – 1.7 bar)	range:	(+130° C to -99° C)
2	LCO_2 300 PSIG (20 bar)	range:	(+130° C to -65° C)
3	LCO_2 900 PSIG (62 bar)	range:	(+130° C to -65° C)

Communications
1	Std. bus & Modbus RTU protocol EIA(RS)-232/485 serial comms
2	Std. bus & Modbus RTU protocol EIA(RS)-232/485 serial comms & GPIB-488 (requires PM9 controller)
3	Ethernet/IP – Modbus TCP communications ǂ

ǂ If you choose the PM6 controller you have a choice of the either the *FM approved integrated limit/alarm controller option or the Ethernet/IP – Modbus TCP communications option.

Country
A	Continental Europe
C	Australia/New Zealand
D	United Kingdom/Ireland
E	Denmark
F	France/Belgium
G	India/South Africa
H	Israel
I	Italy
J	Japan
K	USA (North America)
L	Switzerland
O	Russia
X	China
T	Argentina
Z	Universal power cord with stripped leads (no country specific plug included)

Example: T70011111K T700 Thermal Platform System, 6.75" X 6.75" thermal plate, Integrated PM6 controller, 115 VAC 50/60 Hz, LN_2 15-25 PSIG, EIA-232/485 serial communications, North America (USA) plug on power cord