







## UL Markings and File Listings for TTM Technologies





David Backen 3/2/10

TTM Facility	UL File #	Comments & TTM Contact	Trade-mark (note 4)	Mfr. ID (note 1)
Chippewa Falls, WI	E43620	<b>TTM Corp. file. CF, UT &amp; SA</b> listed as approved Mfr. sites. Chippewa Falls is the Applicant. Dave Backen		<b>CF</b>
Logan, UT				<b>UT</b>
Santa Ana, CA				<b>SA</b>
Logan, UT	E62128	Gary Robertson		<b>UT</b>
Santa Ana, CA	E36959	<b>-SD</b> and <b>-S</b> listed as approved Mfr. Sites. Eric Voisine		<b>SA</b>
Stafford, CT				<b>-S</b>
Santa Clara, CA	E67876	Ron Meier		N/A
Shanghai, China	N/A	Assembly operation (no UL files). Grace Yu	N/A	N/A
Stafford Springs, CT	E227860	Assembly operation, no Mfr. UL marks are added to product at this time (note 6). Harry Craft Jr.	N/A	N/A
Santa Ana, CA	E94188	John Palmer		N/A

**UL marking example.** The following example represents the UL mark used for TTM PCB's built to UL file E43620 by TTM's Chippewa Falls Division. The "**TTM1**" mark represents file # E43620. The Mfr. ID "**CF**" represents the Chippewa Falls site (note 1). The Type Designator "**M30-0**" represents a specific set of materials, processing, design parameters and test limits listed in the file.

UL marking example:  **CF M30-0**

**Notes:**

1. Mfr. ID's are not necessary when only one Mfr. site is listed in a particular file. When multiple Mfr. sites are listed in a particular file it is necessary to add a Mfr. ID after the Trademark. The following Mfr. ID's will be used when necessary:  
Logan = **UT**, San Diego = **SD**, Santa Clara = **SC**, Stafford = **S**, Chippewa Falls = **CF**, Santa Ana = **SA**.
2. It is not necessary to mark the UL Recognized Component Mark (mirrored image **UR**) on PCB's. This is an optional marking requirement for PCB's (UL product category ZPMV2). As a general rule we will not include the **UR** marking however, if a customer specifically requests to include this mark we may do so.
3. When a UL **Type Designator** (e.g. M30-0) is marked on a PCB this provides traceability to the UL file parameters including the flame rating (V-0, V-1, etc.). There are no UL requirements to specifically mark "**94V-0**" although this is some times requested by our customers. If a customer specifically requires a **94V-0** marking we can do so assuming we have a V-0 rating. For traceability purposes we must also include our normal UL marking including the **Type Designator** (ref. UL marking example).
4. TTM Trademarks have been added to the Tyco UL files. For traceability purposes the former Tyco Trademarks have been retained in each UL file. Therefore it was not necessary to retroactively incorporate the new Trademarks (avoided retooling expense). However, all new tooling should incorporate the new TTM Trademark whenever a UL mark is required.
5. Historical reference for Tyco TPCG and TTM UL Trademarks:
  - The following Trademarks are now retired but some may still be listed in UL files for reference (ref. note 4 above):
    - Dallas, Oregon: **PII**
    - Logan, Utah: **LAC**
    - Los Angeles, CA: **EEC**
    - San Diego, CA: **TPCG**
    - Stafford, CT: **TPCG**
    - Santa Clara, CA: 
  - The following Tyco facilities have been closed and UL files withdrawn. These Trademarks are no longer in use:
    - White City, Oregon. UL Trademark: PII-III
    - Freemont, California. UL Trademark: PII MP
    - Stockton, California. UL Trademark: 
    - Melbourne, Florida. UL Trademark: 
    - Spain (sold, Microser may still be using this) UL Trademark: 
    - Austin (closed 2004, rolled into Stafford file) UL Trademark: TPCG-A
  - The TTM Redmond facility closed 3/31/09. The **TTM1RR** Trademark will no longer be used to represent Corp. file E43620. The **TTM** Trademark will no longer be used to represent Redmond file E69104.
  - The TTM LA facility closed on 11/13/09. The **TTM1LA** Trademark will no longer be used to represent Corp. file E43620. The **TTM5** Trademark will no longer be used to represent LA file E42832.
  - The TTM CF file E134238 (old ACI/Cray file) was withdrawn on 2/26/10. The **TTM2** Trademark will no longer be used.

6. Stafford Springs has one UL file representing three categories: ZPV12, PWA – Component. ZPV18, PWA Canada – Component. VZQC2, Subassemblies for IT and Telephone equipment. No manufacturer UL marks are being added to product at this time. In some instances they do mark a customer UL mark.