

MediaTek T750 5G Sub-6 Platform For CPE Devices

Extensive analysis of all components featured in the T750 chipset from MediaTek including modem, transceivers, PMICs and envelope tracker.

In 5G communications systems, there are two frequency ranges, FR1 and FR2. FR1 is the most deployed frequency range in the world today. The 5G smartphone market is projected to have a Compound Annual Growth Rate (CAGR) of 72% in shipped units between 2020 and 2025. Several companies are gambling on this market, and by extension self-hosted applications like Fixed Wireless Access (FWA). Focusing on the FR1 market, in 2021 MediaTek is offering a new chipset dedicated to Customer Premise Equipment (CPE) for 5G sub-6, the T750.

The MediaTek T750 is a chipset used for FWA through 5G sub-6 communication technology. Including a study of the board and block diagram of the module, this report focuses on detailed analysis of the main components forming the MediaTek chipset. The analysis starts with the digital components processing the data, the MT6890, and the Power Management Integrated Circuits (PMICs), the MT6330 and the MT6315. Then, it goes to the next level with the transceivers, for 2G/3G/4G/5G, the MT6190 and, for the Wifi/Bluetooth/GPS, the MT6635. This last stage includes the envelope tracking IC, the MT6308.

In this chipset, several technologies are involved to provide power, efficiency,

low power consumption and cost effectiveness. The main innovation came from the modem that uses the 7 nm technology node, with several functions implemented including a quad-core Arm Central Processing Unit (CPU).

This report includes a full investigation of the system, a detailed study of the components, including die analyses, processes, and cross-sections. It contains a complete cost analysis and a selling price estimation of the chipset. Finally, it features a comparison with MediaTek's 5G smartphone chipset to understand the difference between the two applications.

COMPLETE TEARDOWN WITH

- Detailed photos
- Precise measurements
- Materials analysis
- Manufacturing process flow
- Supply chain evaluation
- Manufacturing cost analysis
- Comparison with MediaTek 5G smartphone chipset

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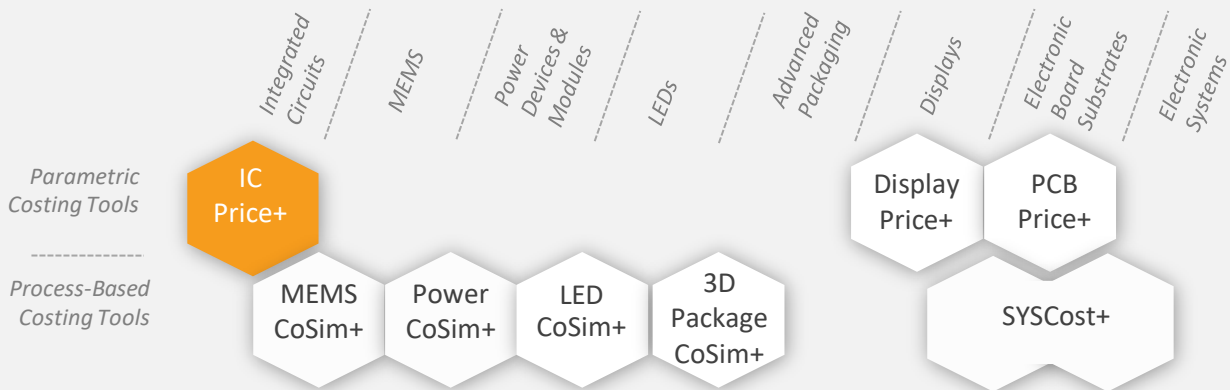
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- Within a few days from the order for Products already released and paid; or
- Within a reasonable time for Products ordered prior to their effective release. In this case, the Seller shall use its best endeavours to inform the Buyer of an indicative release date and the evolution of the work in progress.

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2.3 The mailing of the Product will occur only upon payment by the Buyer, in accordance with the conditions contained in article 3.

2.4. The mailing is operated through electronic means either by email via the sales department or automatically online via an email/password. If the Product's electronic delivery format is defective, the Seller undertakes to replace it at no charge to the Buyer provided that it is informed of the defective formatting within 90 days from the date of the original download or receipt of the Product.

2.5 The person receiving the Products on behalf of the Buyer shall immediately verify the quality of the Products and their conformity to the order. Any claim for apparent defects or for non-conformity shall be sent in writing to the Seller within 8 days of receipt of the Products. For this purpose, the Buyer agrees to produce sufficient evidence of such defects.

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3.2 Payments due by the Buyer shall be sent by cheque payable to Yole Développement, credit card or by electronic transfer to the following account:

HSBC, 1 place de la Bourse 69002 Lyon France

Bank code: 30056

Branch code: 00170

Account n°: 0170 200 1565 87

BIC or SWIFT code: CCFRFRPP

IBAN: FR76 3005 6001 7001 7020 0156 587

To ensure the payments, the Seller reserves the right to request down payments from the Buyer. In this case, the need of down payments will be mentioned on the order.

3.4 Payment is due by the Buyer to the Seller within 30 days from invoice date, except in the case of a particular written agreement. If the Buyer fails to pay within this time and fails to contact the Seller, the latter shall be entitled to invoice interest in arrears based on the annual rate Refi of the «BCE» + 7 points, in accordance with article L. 441-6 of the French Commercial Code. Our publications (report, database, tool...) are delivered only after reception of the payment.

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4.2 The Seller shall only be liable for (i) direct and (ii) foreseeable pecuniary loss, caused by the Products or arising from a material breach of this agreement

4.3 In no event shall the Seller be liable for:

- a) Damages of any kind, including without limitation, incidental or consequential damages (including, but not limited to, damages for loss of profits, business interruption and loss of programs or information) arising out of the use of or inability to use the Seller's website or the Products, or any information provided on the website, or in the Products;
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The Seller shall not be liable for any delay in performance directly or indirectly caused by or resulting from acts of nature, fire, flood, accident, riot, war, government intervention, embargoes, strikes, labour difficulties, equipment failure, late deliveries by suppliers or other difficulties which are beyond the control, and not the fault of the Seller.

6. PROTECTION OF THE SELLER'S IPR

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6.7 As a matter of fact the investor of a company, external consultants, the joint venture done with a third party, and so on cannot access the report and should pay a full license price.

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