

Section 5: Electronics and Electrical Appliances Industry

Activities	Conditions	Incentives	Investment Promotion Division
<p>5.1 Manufacture of electrical products</p> <p>5.1.1 Manufacture of smart electrical appliances</p> <p>5.1.2 Manufacture of air conditioners, refrigerators, freezers, washing and drying machines</p> <p>5.1.3 Manufacture of other electrical appliances</p>	<p>1. Smart electrical appliances must comply with the following conditions:</p> <p>1.1 Appliances must have electronic components which can detect and receive the data as a core component</p> <p>1.2 Appliances must have a function, used to connect with other devices or equipment or network through wireless system</p> <p>1.3 Appliances must have an operating or processing system embedded into such equipment or devices</p> <p>2. Projects with investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.</p> <p>3. Projects with investments or expenditures on research, design or product development of <u>less</u> than 0.5% of the project's total revenue of the first 3 years combined, <u>and less</u> than 100 million baht.</p> <p>Products must meet Thailand's Energy Efficiency Standards and have the High Energy Efficiency Label (Label No. 5) from the Ministry of Energy or other equivalent energy efficiency.</p> <p>1. Projects with investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.</p> <p>2. Projects with investments or expenditures on research, design or product development of <u>less</u> than 0.5% of the project's total revenue of the first 3 years combined, <u>and less</u> than 100 million baht.</p>	<p>A 2</p> <p>A 3</p> <p>A 4</p> <p>A 3</p> <p>B 1</p>	<p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p>

Activities		Conditions	Incentives	Investment Promotion Division
5.2	Manufacture of parts and/or equipment used for electrical products			
5.2.1	Manufacture of electrical parts and/or equipments used for industry: Power Inverter, Distribution Transformer, Main Circuit Breaker			
5.2.1.1	With own-design process of the product		A 3	2
5.2.1.2	Without own-design process of the product		A 4	2
5.2.2	Manufacture of LED lamps		A 4	2
5.2.3	Manufacture of compressors and/or motors for electrical appliances	For the manufacture of motors, product design must be included in the manufacturing process.	A 4	2
5.2.4	Manufacture of wire harnesses		B 1	2
5.2.5	Manufacture of parts and/or equipment for other electrical products		B 1	2
5.2.6.	Manufacture of high density energy storage equipment			
5.2.6.1	Manufacture of high density battery	Specific power and number of charging cycles must be approved by the Board.	A 2	2
5.2.6.2	Manufacture of supercapacitor	Specific energy and number of charging cycles must be approved by the Board.	A 2	2
5.2.6.3	Manufacture of battery (except lead or acid battery)		B 1	2
5.3	Manufacture of electronic products			
5.3.1	Manufacture of organic and printed electronics (OPE)		A 2	2
5.3.2	Manufacture of telecommunication products			
5.3.2.1	Manufacture of emission, transmission and reception devices used in fiber-optic and wireless communication systems	1. Projects with investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.	A 2	2

Activities	Conditions	Incentives	Investment Promotion Division
<p>5.3.2.2 Manufacture of other telecommunication products</p>	<p>2. Projects with investments or expenditures on research, design or product development of <u>less</u> than 0.5% of the project's total revenue of the first 3 years combined, <u>and less</u> than 100 million baht.</p>	A 3	2
	<p>1. Projects, which comply with both of the following conditions: 1.1 Projects must invest in PCBA production line using surface mount technology with full function. 1.2 Projects must have investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.</p>	A 2	2
	<p>2. Projects with investment in PCBA production line using surface mount technology with full function.</p>	A 3	2
	<p>3. Projects with investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.</p>	A 3	2
	<p>4. Project without investment in PCBA projection line using surface mount technology with full function <u>and</u> with investment or expenditures on research, design or development of less than 0.5% of the project's total revenue of the first 3 years combined, <u>and less</u> than 100 million baht.</p>	A 4	2
	<p>5.3.3 Manufacture of electronic control and measurement instruments for industrial/ agricultural use with sensor of highly accurate measurement</p>	<p>1. Projects with investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.</p>	A 2
<p>2. Projects with investments or expenditures on research, design or product development of <u>less</u> than 0.5% of the project's total revenue of the first 3 years combined, <u>and less</u> than 100 million baht.</p>		A 3	2

Activities	Conditions	Incentives	Investment Promotion Division
5.3.4 Manufacture of security control equipment with sensor of highly accurate measurement, e.g. fingerprint scanner or retina scanner, etc.	1. Projects with investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.	A 2	2
	2. Projects with investments or expenditures on research, design or product development of <u>less</u> than 0.5% of the project's total revenue of the first 3 years combined, <u>and less</u> than 100 million baht.	A 3	2
5.3.5 Manufacture of audio visual products	1. Projects, which comply with both of the following conditions: 1.1 Projects must invest in PCBA production line using surface mount technology with full function. 1.2 Projects must have investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.	A 2	2
	2. Projects with investment in PCBA production line using surface mount technology with full function.	A 3	2
	3. Projects with investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.	A 3	2
	4. Project without investment in PCBA production line using surface mount technology with full function <u>and</u> with investment or expenditures on research, design or development of less than 0.5% of the project's total revenue of the first 3 years combined, <u>and less</u> than 100 million baht.	A 4	2
5.3.6 Manufacture of office electronics	1. Projects, which comply with both of the following conditions: 1.1 Projects must invest in PCBA production line using surface mount technology with full function.	A 2	2

Activities	Conditions	Incentives	Investment Promotion Division
5.3.7 Manufacture of other electronics	1.2 Projects must have investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.		
	2. Projects with investment in PCBA production line using surface mount technology with full function.	A 3	2
	3. Projects with investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.	A 3	2
	4. Project without investment in PCBA production line using surface mount technology with full function <u>and</u> with investment or expenditures on research, design or development of less than 0.5% of the project's total revenue of the first 3 years combined, <u>and less</u> than 100 million baht.	A 4	2
	1. Projects, which comply with both of the following conditions: 1.1 Projects must invest in PCBA production line using surface mount technology with full function. 1.2 Projects must have investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.	A 3	2
	2. Projects with investment in PCBA production line using surface mount technology with full function.	A 4	2
	3. Projects with investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.	A 4	2

Activities	Conditions	Incentives	Investment Promotion Division
5.3.8 Manufacture of smart electronics	<p>4. Project without investment in PCBA projection line using surface mount technology with full function <u>and</u> with investment or expenditures on research, design or development of less than 0.5% of the project's total revenue of the first 3 years combined, <u>and less</u> than 100 million baht.</p> <p>1. Smart electrical appliances must comply with the following conditions:</p> <p>1.1 Appliances must have electronic components which can detect and receive the data as a core component</p> <p>1.2 Appliances must have a function, used to connect with other devices or equipment or network through wireless system</p> <p>1.3 Appliances must have an operating or processing system embedded into such equipment or devices</p> <p>2. Projects with investments or expenditures on research, design or product development of not less than 0.5% of the project's total revenue of the first 3 years combined, or not less than 100 million baht, whichever is lower.</p> <p>3. Projects with investments or expenditures on research, design or product development of <u>less</u> than 0.5% of the project's total revenue of the first 3 years combined, <u>and less</u> than 100 million baht.</p>	<p>B 1</p> <p>A 2</p> <p>A 3</p>	<p>2</p> <p>2</p> <p>2</p>
5.4 Manufacture of parts and/or equipment used for electronic products	The manufacturing process and energy yield for the production of solar cells must be approved by the Board.		
5.4.1 Manufacture of parts for organic and printed electronics (OPE)		A 2	2
5.4.2 Manufacture of solar cells and/or raw materials for solar cells		A 2	2
5.4.3 Manufacture of parts for telecommunication products			

Activities		Conditions	Incentives	Investment Promotion Division
5.4.3.1	Manufacture of parts for emission, transmission, reception devices used in optical fiber and wireless system	1. Manufacture of primary function parts	A 2	2
		2. Other parts	A 3	2
5.4.3.2	Manufacture of parts for other telecommunication products	1. Manufacture of primary function parts	A 3	2
		2. Other parts	A 4	2
5.4.4	Manufacturer of parts for electronic control and measurement for industrial/ agricultural use, medical/ scientific devices and automotive industry with sensor of highly accurate measurement	1. Manufacture of primary function parts	A 2	2
		2. Other parts	A 3	2
5.4.5	Manufacture of parts for security control equipment with sensor of highly accurate measurement, e.g. fingerprint scanner or retina scanner	1. Manufacture of primary function parts	A 2	2
		2. Other parts	A 3	2
5.4.6	Manufacture of hard disk drive and/or parts for hard disk drive			
5.4.6.1	Manufacture of advanced technology hard disk drives and/ or parts (excluding top covers, base plates or peripherals)	1. The areal density of hard disk drives must not be less than 2,000 gigabits per square inch. 2. The cost of refurbishment of existing machines shall be regarded as an investment and will be taken into account in the calculation of corporate income tax exemption cap. The original cost of existing machines shall not be regarded as an investment.	A 2	2
5.4.6.2	Manufacture of hard disk drives and/ or parts (excluding top covers, base plates or peripherals))	The cost of refurbishment of existing machines shall be regarded as an investment and will be taken into account in the calculation of corporate income tax exemption cap. The original cost of existing machines shall not be regarded as an investment.	A 3	2
5.4.6.3	Manufacture of top covers, base plates or peripherals for hard disk drives		A 4	2

Activities	Conditions	Incentives	Investment Promotion Division
5.4.7 Manufacture of solid state drives and/or parts for solid state drives	The cost of refurbishment of existing machines shall be regarded as an investment and will be taken into account in the calculation of corporate income tax exemption cap. The original cost of existing machines shall not be regarded as an investment.	A 2	2
5.4.8 Manufacture of parts and/or equipment for solar-powered products		A 3	2
5.4.9 Manufacture of semiconductors and/or parts for semiconductors including products obtained in between manufacturing process or downstream products such as wafer grinding, sawed dice, wafer testing, IC testing, IC module, etc.	For the production of integrated circuits, the cost of refurbishment of existing machines shall be regarded as an investment and will be taken into account in the calculation of corporate income tax exemption cap. The original cost of the existing machines shall not be regarded as an investment.	A 3	2
5.4.10 Manufacture of equipment and/or parts for photonic devices and/or for photonic integrated systems	The manufacturing processes must be approved by the Board.	A 3	2
5.4.11 Manufacture of flat panel displays		A 3	2
5.4.12 Manufacture of flexible printed circuit board and/or printed circuit board and/or parts			
5.4.12.1 Manufacture of flexible printed circuit board and/or multilayer printed circuit board and/or parts with circuit design process.		A 2	2
5.4.12.2 Manufacture of flexible printed circuit board and/or multilayer printed circuit board and/or parts without circuit design process		A 3	2
5.4.11.3 Manufacture of other printed circuit board and/or parts with circuit design process		A 4	2
5.4.11.4 Manufacture of other printed circuit board and/or parts without circuit design process.		B 1	2

CIT Exemption	A 1 = 8 years (No Cap)	A 2 = 8 year	A 3 = 5 year	A 4 = 3 year
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Activities		Conditions	Incentives	Investment Promotion Division
5.4.13	Manufacture of other memory storage equipment	Investment in PCBA production line using surface mount technology with full function.	A 4	2
5.4.14	Manufacture of printed circuit board assembly (PCBA) or downstream products from PCBA in the same project		A 4	2
5.4.15	Manufacture of electro-magnetic products		A 4	2
5.4.16	Manufacture of passive components		A 4	2
5.4.17	Manufacture of parts for audio visual products		A 4	2
5.4.18	Manufacture of parts for office electronics		A 4	2
5.4.19	Manufacture of parts for other electronic products		B 1	2
5.5	Manufacture of material for microelectronics	<ol style="list-style-type: none"> The manufacturing processes must be approved by the Board. The cost of refurbishment of existing machines shall be regarded as an investment and will be taken into account in the calculation of corporate income tax exemption cap. The original cost of used machines shall not be regarded as an investment. 		
5.5.1	Manufacture of wafers		A 2	2
5.5.2	Manufacture of material based Thin Film Technology		A 3	2
5.6	Electronics design	<ol style="list-style-type: none"> Projects must have expenses for salaries for electronics design personnel of at least 1,500,000 baht per year. <u>Or</u> projects must have the minimum investment capital directly for the activity of at least 1 million baht (excluding cost of land and working capital). Revenue derived from sales or the provision of services that are directly related to a promoted business or which are from downstream production for commercial purposes, either carried by the promoted companies or sub-contractors, shall be regarded as revenue of such promoted businesses. If located in the science and technology park, promoted by the Board, 50 percent reduction of the corporate income tax for 5 years after the end of its corporate income tax exemption period. 		
5.6.1	Microelectronics design		A 1	2
5.6.2	Embedded system design		A 1	2

CIT Exemption

A 1 = 8 years (No Cap)

A 2 = 8 year

A 3 = 5 year

A 4 = 3 year

Activities	Conditions	Incentives	Investment Promotion Division
<p>5.7 Software</p> <p>5.7.1 Embedded software</p> <p>5.7.2 Enterprise Software and/or Digital Content</p> <p>5.7.3 High Value-Added Software</p> <ul style="list-style-type: none"> - Develop and provide analysis and data management software services, including big data, data analytics and predictive analytics software - Develop information security and cyber security software - Develop system software for advanced-technology devices, including business process management - Develop industrial software used to support manufacturing 	<ol style="list-style-type: none"> 1. Projects must have expenses for salaries for IT-personnel of at least 1,500,000 baht per year. <u>Or</u> projects must have the minimum investment capital directly for the activity of at least 1 million baht (excluding cost of land and working capital). 2. Projects must include software development processes specified by the Digital Economy Promotion Agency: DEPA. 3. Projects with an investment of 10 million baht or more (excluding cost of land and working capital) must obtain a quality standard certificate from DEPA or receive a Capability Maturity Model Integration (CMMI) quality standard certificate or any equivalent standard within two years from the full operation start-up date. If the project fails to meet such conditions, one-year of the corporate income tax exemption shall be withdrawn. 4. Revenue derived from sales or the provision of services that are directly related to a promoted software business shall be regarded as revenue of such promoted businesses. 	<p style="text-align: center;">A 1</p> <p style="text-align: center;">A 3 (no cap for corporate income tax exemption)</p> <p style="text-align: center;">A 1</p>	<p style="text-align: center;">5</p> <p style="text-align: center;">5</p> <p style="text-align: center;">5</p>

Activities	Conditions	Incentives	Investment Promotion Division
5.8 E-commerce ^{1, 2, 3}	Not eligible for merit-based incentives.	B 2	5
5.9 Digital Services <ul style="list-style-type: none"> - Software platform - Managed service - Digital architecture design service - Digital services such as FinTech, DigiTech, MedTech, AgriTech, etc. 	<ol style="list-style-type: none"> 1. Projects must hire digital specialists and have capital investment (excluding cost of land and working capital) not less than 1,000,000 baht. 2. Projects must include digital service processes as approved by the Board. 3. Projects with an investment of 10 million baht or more (excluding cost of land and working capital) must be certified with ISO 20000 or other quality standard certificate as approved by the Ministry of Information and Communication Technology within 2 years from the full operation start-up date, otherwise the corporate income tax exemption shall be reduced by 1 year. 4. Revenue derived from sales or the provision of services that are directly related to a promoted digital service business shall be regarded as revenue of such promoted businesses. 5. Projects must gain approval from the Ministry of Digital Economy and Society before applying for investment promotion. 	A 3	5

1. This category is not eligible for a promotion under Measures to Promote Improvement of Production Efficiency (Announcement of the Board of Investment No. 9/2560) under these following measures:
 - Measure to promote energy conservation, alternative energy utilization or reduction of environmental impact
 - Measure to promote the investment on research and development and engineering designs for efficiency improvement
2. This category is not eligible for a promotion under the measure to promote improvement in production efficiency by upgrading and replacing machinery for manufacturing according to Measures to Promote Improvement of Production Efficiency (Announcement of the Board of Investment No. 9/2560).
3. This category is not eligible for a promotion for additional rights and benefits to promote a utilization of modern machinery and robotics system for manufacturing (Announcement of the Board of Investment No. 10/2560)

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