

STUDY OF THE STATISTICAL CLASSIFICATION OF ELECTRONIC PRODUCTS AND THE ELECTRONICS INDUSTRY

This review article is a report on a study of the classification of electronic products and the electronics industry. It describes the need for the study, the practical difficulties involved and the classification principles that were evolved after careful deliberation. The resulting lists of electronic products and constituent industries that are now collectively called the electronics industry are presented. Finally, a look is taken at the performance of electronic products and the electronics industry as reflected in trade statistics and industrial statistics.

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Introduction

Both in terms of trade values and size of employment, the group of products and industrial activities which may be described as “electronics” hold a prominent position in Hong Kong, whatever classification is used to identify them. Statistics have been compiled by various Government departments and organisations to monitor developments in this area. However, different sets of figures have been produced due to the lack of a commonly accepted classification. The situation arises for a number of reasons. Basically, whilst the notion of “electronic products” and “electronics industry” is meaningful to most people, there are many difficulties in actually classifying them, as elaborated below. In any case, it is felt by many parties that some solution must be sought such that a consistent set of figures, acceptable to all on the basis of a commonly agreed classification, can be compiled for “electronic products” and the “electronics industry”, although any solution may not be the ideal. A detailed study of the subject was therefore conducted by the Census and Statistics Department in 1985 in consultation with parties concerned. In the study, difficult issues relating to the identification of electronic products and the electronics industry were discerned and examined. A set of classification principles were subsequently generated and applied to commodity codes to come up with a classification of electronic products. Industries engaged mainly in the manufacturing of these electronic products were then identified and collectively termed the electronics industry. Details of the study are summarized below. The performance of electronic products and the electronics industry as reflected in trade statistics and industrial statistics in recent years is also discussed.

Delineation in the context of the existing commodity and industry classifications

2. In the Standard International Trade Classification (SITC), there does not exist an exclusive group or groups of commodity items to which one can refer readily as “electronic products”. This is because electronic products are classified under a number of SITC Divisions and Groups, and any attempt to set up an SITC group exclusively called “electronic products” will cause serious disruption to the existing SITC framework which classifies commodities by their degree of manufacture (i.e. whether raw materials, semi-manufacture or finished products) and uses. For this and other reasons, there is no international definition of an “electronic products” group. Similarly, in the International Standard Industrial Classification of All Economic Activities (ISIC), one has to screen through a number of industries in order to pick up sub-groups to form an “electronics industry”. Thus if an exclusive industry called “electronics industry” were to be formed in the ISIC, undue interruption would be introduced into this industrial classification system.

3. In view of the above, it was considered not advisable to decompose and restructure the local versions of SITC and ISIC, each having its own specific purpose, to form revised SITC or ISIC system just to suit the need for identifying an exclusive group of “electronic products” and an “electronics industry”. Instead, efforts were focussed on establishing a broad delineation of electronic products and the electronics industry for statistical purposes based on the SITC product codes and ISIC industry codes, so that users can refer to them as common frameworks in compiling and interpreting trade and industry statistics related to electronic products.

Classification principles for delineating electronic products

4. After careful deliberation, a set of principles of classifying product items into “electronic” or “non-electronic” was drawn up. A product item will be classified as an “electronic product” if it satisfies one or more of the following principles:

- (i) it is an electronic component;
- (ii) its essential function is driven by electronics;
- (iii) it is dedicated for use by an electronic device; or
- (iv) for a multi-function product, one of its major functions is driven by electronics.

5. Furthermore, to better differentiate between “electronic” and “non-electronic” products, the distinction between “electrical” and “electronic” devices was examined in consultation with experts in the electronics and electrical industry. The principle was established that “electrical” concerns the generation, distribution, regulation and utilization of power, and involves the use of heavy current; while “electronic” concerns semi-conductors and their combination, and involves the use of light current. Products whose primary components (i.e. those that support the product’s essential function) are made up of semi-conductors or closely related devices (such as transistors, integrated circuits, vacuum tubes) are classified as “electronic products”. This conceptual distinction between “electrical” and “electronic” has been carefully applied to supplement the above classification principles in identifying “electronic” and “non-electronic” products.

Identification of electronic products

6. The above classification principles and concepts were applied in detail to a shortlist of SITC product items which have been regarded as “electronic products” by one or more major users of statistics, or which appear to meet one or more of the classification criteria. During the study, it was found that some SITC product codes contain a mixture of “electronic products” and “non-electronic products”. It was considered not practical to identify sub-groups of such product items which meet the classification principles, since splitting the codes would place a heavier burden on traders in making trade declarations, and also often by the nature of the products, it is very difficult to decide which code is more appropriate even if splitting were done. It was therefore decided to add the criterion that if 50% or more of the values of imports, domestic exports, or re-exports of the items contained in an SITC product code are electronic products, then the whole code would be classified as “electronic products”.

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7. A total of 124 SITC codes have been identified as electronic product codes based on the aforesaid principles and criteria, with reference to the 1985 Hong Kong SITC system. It should be noted that if one refers to the SITC systems of previous years, the trade codes identified are bound to be somewhat different as there has been merging or splitting of trade codes over the past years. The list of electronic products based on the 1985 Hong Kong SITC system is shown in the Annex. Where changes in trade codes are involved in the 1986 Hong Kong SITC system, these are also indicated in the Annex.

8. It should be noted that, whilst identified in terms of SITC product codes, the “electronic products” so delineated will *not* be taken as an integral part of the SITC system. Thus, such a list of “electronic products” may overlap with lists of selected products constructed for other purposes. For example, for monitoring development of the production and export of watches and clocks, a list of products to be considered as watches and clocks may be identified similarly, and electronic watches and clocks will also be included there.

Identification of the electronics industry

9. The industrial origin of the electronic products delineated above was identified with reference to the SITC—ISIC conversion table, and was found to be spread across 17 industries. Among these, 10 industries have a relatively high percentage of sales attributable to electronic products, based on sales statistics from the Survey of Industrial Production (SIP). However, for the remaining 7 industries, the percentage of sales in electronic products was relatively low. It was therefore considered appropriate to regard only the 10 industries with a high proportion of electronic products sales as constituting the “electronics industry”.

10. The 10 industries constituting the “electronics industry” are:—

<i>ISIC Code No.</i>	<i>Description</i>
3825	Manufacture of office machinery and equipment, except computing and accounting machines
3831	Manufacture of electronic toys
3832	Manufacture of transistorized radios
3834	Manufacture of television receivers and communication equipment
3835	Manufacture of sound reproducing, recording equipment and apparatus
3838	Manufacture of computing machinery and equipment
3839	Manufacture of consumer electrical and electronic products, n.e.c.
3841	Manufacture of electronic industrial apparatus
3844	Manufacture of electronic parts and components
3854	Manufacture of watches and clocks—electronic

11. It should be noted that the delineation of the “electronics industry” has been based on the industrial classification adopted for the SIP. A slightly different industrial classification system is presently adopted in the Quarterly Survey of Employment, Vacancies and Payroll conducted by this Department. In the latter classification, there is an industry code on “Manufacture of electronic products” whose coverage is equivalent to the totality of the industries named in paragraph 10, except for 3825, 3854 and part of 3835. In the meantime it should be noted that for a number of statistical reasons, apart from classification, data based on the series of quarterly employment surveys cannot be matched exactly with the employment data based on the SIP.

A note of caution on trade statistics and industrial statistics

12. On the basis of the classification now adopted, the trade statistics and industrial statistics related to electronic products in recent years are described in the paragraphs that follow. The following points should be borne in mind especially when the two sets of statistics are related:

- Not all of the domestic exports of electronic products are manufactured by the electronics industry. Some are produced by establishments belonging to industries with a relatively low proportion of electronic product sales, thus not being regarded as part of the electronics industry. Since an establishment may produce secondary products in addition to its major or primary products, some exports of electronic products may have been produced as secondary products by establishments belonging to any industry.
- Although the manufacturing sector is on the whole export-oriented, a substantial amount of the output is sold to other establishments (for further processing) or to local consumers. Because of this, one will observe difference between the domestic export and production figures.
- There is a difference in the time frame in which trade statistics and industrial production data are collected. External trade statistics are compiled on a monthly basis from trade declarations relating to individual shipments, whereas the product data of industrial surveys are obtained from establishments whose returns are mostly based on accounting records covering a whole year with numerous product transactions. The data of industrial surveys represent a mixture of different accounting periods—with some establishments using the calendar year and some using the fiscal year.
- The value in the two sets of data may also differ when there are intermediaries (that is, exporters) involved, so that the prices of the goods are marked up by a resale margin.
- Stockpiling may also lead to timing differences in the data.

- (f) The classification systems are different: the external trade statistics are based on the SITC (which has a bigger emphasis on products' uses and degree of manufacture) and industrial surveys on the ISIC (which has a bigger emphasis on materials and industrial processes). Although a conversion table has been compiled between the two, there is bound to be an element of approximation in it.

Trade statistics of electronic products, 1981–1985

Domestic exports (Table 1)

13. As shown in Table 1, the domestic exports of electronic products in 1985 amounted to \$27,014.5 million, accounting for 20.8% of Hong Kong's total domestic export value. Between 1981 and 1985, the domestic export value of electronic products expanded by an average annual growth rate of 11.0%. Within this period, the share of electronic products in total domestic export value was largest in 1983, at 24.6%, but dropped to 22.6% in 1984 and further to 20.8% in 1985.

14. The ten most important SITC items of electronic products, in terms of domestic export value, are also shown in Table 1. They made up 65.4% of the domestic export value of all electronic products in 1985. Amongst them, items with significant increases between 1981 and 1985 included electronic components for computers; electronic watches, quartz analogue; electrical line telephonic apparatus; and parts, n.e.s. of radio broadcast receivers. Other items registered some decline during the period, including electronic watches, digital; portable radios with sound recorders, complete; portable radios n.e.s., complete; and other radio broadcast receivers with clock.

TABLE 1 DOMESTIC EXPORT VALUE OF ELECTRONIC PRODUCTS, 1981–1985

		\$ million				
Selected electronic products Code	Description	1981	1982	1983	1984	1985
759902	Electronic components for computers	2,110.9	1,641.9	3,337.8	5,498.6	4,092.0
885113	Electronic watches, quartz analogue	875.3	1,078.9	1,900.5	2,806.3	3,628.1
885111	Electronic watches, digital (including LCD and LED)	2,914.6	2,914.2	3,172.2	2,677.1	2,112.3
764101	Electrical line telephonic apparatus	94.3	320.9	2,010.7	1,610.7	1,448.0
764933	Parts, n.e.s. of radio broadcast receivers	431.1	556.5	692.4	1,457.4	1,436.8
762201	Portable radios with sound recorders, complete	1,359.5	1,365.5	1,379.4	1,676.9	1,284.7
762202	Portable radios n.e.s., complete	1,351.8	1,300.1	1,235.5	1,629.5	1,131.5
759901	Parts n.e.s. of adding, calculating and similar machines	70.3	74.9	125.6	542.5	946.1
776402	Integrated microcircuits, mounted	584.4	540.9	602.4	1,032.8	832.8
762807	Other radio broadcast receivers with clock	1,019.1	702.9	791.5	1,204.4	743.5
(a)	All electronic products	17,806.8	19,858.3	25,706.9	31,212.6	27,014.5
(b)	All domestic exports	80,423.2	83,031.9	104,405.2	137,936.5	129,881.9
(a)	as percentage of (b)	22.1%	23.9%	24.6%	22.6%	20.8%

Re-exports (Table 2)

15. The re-export value of electronic products in 1985 was \$19,371.5 million which was 18.4% of Hong Kong's total re-export value. Between 1981 and 1985, the re-export value of electronic products grew by an average annual rate of 30.5%. Within this period, the share of electronic products in total re-export value was largest in 1984, being 19.8%, but dropped slightly to 18.4% in 1985.

16. The ten most important SITC items of electronic products, in terms of re-export value, are shown in Table 2. They accounted for 57.7% of the re-export value of all electronic products in 1985. All of these items increased in re-export value between 1981 and 1985. The most significant increases were recorded for integrated microcircuits, mounted; and television image and sound recorders and reproducers.

TABLE 2 RE-EXPORT VALUE OF ELECTRONIC PRODUCTS, 1981–1985

		\$ million				
Selected electronic products Code	Description	1981	1982	1983	1984	1985
776402	Integrated microcircuits, mounted	678.9	855.2	1,989.6	3,808.9	3,142.8
763810	Television image and sound recorders and reproducers	148.6	215.3	340.2	926.6	1,306.3
761103	Other television receivers, colour	N.A.†	167.8	193.8	482.3	1,273.3
885113	Electronic watches, quartz analogue	520.2	539.9	870.6	1,007.2	1,089.3
776302	Transistors, 3-terminal devices with 2 junctions	770.7	625.0	673.5	908.0	806.8
764933	Parts, n.e.s. of radio broadcast receivers	130.6	101.8	170.8	388.3	772.5
776100	Television picture tubes cathode ray	242.9	64.6	95.3	443.9	763.6
764999	Parts n.e.s. of gramophones, sound recorders etc.	113.9	155.5	202.5	583.2	752.7
752500	Peripheral units, control and adapting units	44.5	76.8	235.4	922.8	640.7
751820	Photocopying apparatus	37.4	85.1	251.1	267.9	632.3
(a)	All electronic products	6,671.9	6,855.0	9,724.2	16,527.7	19,371.5
(b)	All re-exports	41,739.5	44,352.7	56,294.2	83,504.4	105,270.4
(a)	as percentage of (b)	16.0%	15.5%	17.3%	19.8%	18.4%

†Separate data for this item code were not available before 1982.

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Retained imports (Table 3)

17. Table 3 shows that the retained imports of electronic products in 1985 were \$17,250.5 million, or 13.7% of Hong Kong's total retained imports. From 1981 to 1985, the retained import value of electronic products had an average annual growth of 8.9%. Its share in total retained import value was largest in 1984, which was 15.8%, but dropped to 13.7% in 1985.

18. Table 3 also shows the ten most important SITC items of electronic products, which made up 54.5% of the retained import value of electronic products in 1985. Most of them had significantly increased in retained import value between 1981 and 1985, particularly integrated microcircuits, mounted; watch movements, electronic, assembled; and television image and sound recorders and reproducers.

TABLE 3 RETAINED IMPORT VALUE OF ELECTRONIC PRODUCTS, 1981–1985

\$ million

Selected electronic products Code	Description	1981	1982	1983	1984	1985
776402	Integrated microcircuits mounted	1,070.8	1,802.0	3,089.5	4,129.8	1,933.3
759902	Electronic components for computers	1,050.0	708.2	869.4	1,410.1	1,363.2
885131	Watch movements, electronic, assembled	293.1	364.3	556.7	778.5	1,358.4
763810	Television image and sound recorders and reproducers	210.1	351.1	600.5	1,295.6	845.9
776890	Other electronic components and parts within group 776	528.4	406.3	526.1	805.5	726.9
776403	Integrated microcircuits, unmounted, chips or wafers	398.3	411.6	542.4	686.2	725.8
778840	Capacitors, condensers	562.7	506.1	888.1	1,132.6	707.2
752500	Peripheral units, control and adapting units	196.6	339.1	538.0	610.7	654.0
764101	Electrical line telephonic apparatus	568.7	444.8	349.4	404.3	559.5
761103	Other television receivers, colour	N.A.†	288.0	405.7	431.3	533.0
(a)	All electronic products	12,279.6	11,952.7	17,796.6	22,031.4	17,250.5
(b)	All retained imports	96,635.3	98,539.9	119,148.2	139,865.8	126,149.3
	(a) as percentage of (b)	12.7%	12.1%	14.9%	15.8%	13.7%

†Separate data for this item code were not available before 1982.

Industrial statistics of the electronics industry, 1981–1983 (Table 4)

19. The statistics on output and other operating characteristics of the electronics industry for the years 1981–1983 obtained from the annual Survey of Industrial Production are shown in Table 4.

20. The statistics show that the gross output of the electronics industry had grown from \$21,854.1 million in 1981 to \$31,033.5 million in 1983, representing an average annual growth of 19.2%. While gross output is the sum total of the value of all goods produced and work done by establishments in the industries concerned, national accounts value added represents their contribution to the gross domestic product of Hong Kong. As shown in Table 4, the national accounts value added of the electronics industry rose from \$4,959.6 million in 1981 to \$6,568.2 million in 1983, achieving an average annual growth of 15.1%. During the period mentioned, the growth rate of the electronics industry in terms of both gross output and national accounts value added was larger than that of the other manufacturing industries. As a result, the share of the electronics industry in the manufacturing sector had risen—accounting for 19.3% of the manufacturing sector's total gross output in 1983 compared with 16.7% in 1981, and in terms of national accounts value added, accounting for 14.9% in 1983 as against 13.8% in 1981.

21. Among the 10 constituent electronic industries, the more important ones are the manufacture of electronic parts and components; watches and clocks—electronic; television receivers and communication equipment; computing machinery and equipment; transistorized radios; and sound reproducing and recording equipment and apparatus. In 1983, these 6 constituent industries accounted for 96.5% of the electronics industry's total gross output or 95.6% of the industry's total national accounts value added. Some of these constituent industries recorded substantial growth in gross output and national accounts value added between 1981 and 1983, like the computing machinery and apparatus industries; watches and clocks—electronic; and television receivers and communication equipment. In contrast, the transistorized radios and sound reproducing and recording equipment and apparatus industries did not perform so well, with some decline in both gross output and national accounts value added over the period.

22. Also shown in Table 4 are the number of establishments, persons engaged and annual expenditures of the electronics industry on compensation of employees and purchases of materials, supplies and industrial services.

TABLE 4 SELECTED INDUSTRIAL STATISTICS OF THE ELECTRONICS INDUSTRY

\$ million unless otherwise specified

Code	Industry Description	Number of establishments			Number of persons engaged			Compensation of employees		
		1981	1982	1983	1981	1982	1983	1981	1982	1983
3825	Manufacture of office machinery and equipment, except computing and accounting machines	21	8	17	321	116	208	9.7	3.7	7.8
3831	Manufacture of electronic toys	59	54	42	3 933	2 277	3 059	80.6	58.1	85.1
3832	Manufacture of transistorized radios	393	240	228	26 728	16 411	18 603	520.7	377.7	457.5
3834	Manufacture of television receivers and communication equipment	80	100	172	8 672	13 603	19 289	186.0	326.6	559.2
3835	Manufacture of sound reproducing, recording equipment and apparatus	208	151	155	24 178	21 858	16 265	497.7	542.6	433.4
3838	Manufacture of computing machinery and equipment	13	21	40	4 559	4 985	10 517	103.4	139.2	295.4
3839	Manufacture of consumer electrical and electronic products n.e.c.	98	95	161	2 352	1 881	2 684	53.3	44.7	64.5
3841	Manufacture of electronic industrial apparatus	12	16	19	381	482	523	11.1	22.8	22.0
3844	Manufacture of electronic parts and components	347	394	456	26 524	26 985	29 788	627.8	770.2	921.1
3854	Manufacture of watches and clocks—electronic	702	722	927	22 746	23 996	23 653	491.8	619.0	677.0
(a)	Total for the electronics industry	1 933	1 801	2 217	120 394	112 594	124 589	2,582.2	2,904.6	3,523.2
(b)	Manufacturing sector total	48 324	45 194	46 309	996 121	895 328	936 609	23,805.4	24,336.2	28,055.6
(a)	as percentage of (b)	4.0%	4.0%	4.8%	12.1%	12.6%	13.3%	10.8%	11.9%	12.6%

Code	Industry Description	Purchases of materials, supplies and industrial services			Gross output			National accounts value added		
		1981	1982	1983	1981	1982	1983	1981	1982	1983
3825	Manufacture of office machinery and equipment, except computing and accounting machines	41.9	36.0	68.2	60.5	46.2	100.5	12.8	9.5	27.3
3831	Manufacture of electronic toys	272.0	188.0	318.8	413.1	318.1	465.6	107.6	106.3	124.9
3832	Manufacture of transistorized radios	2,027.6	1,576.5	2,208.6	2,838.3	2,147.7	2,861.7	663.0	433.2	591.0
3834	Manufacture of television receivers and communication equipment	2,300.4	2,872.4	3,737.4	3,044.7	3,926.8	5,036.0	825.3	941.3	1,160.3
3835	Manufacture of sound reproducing, recording equipment and apparatus	3,137.9	2,846.1	2,859.5	3,902.5	3,919.1	3,530.5	629.7	786.0	608.2
3838	Manufacture of computing machinery and equipment	591.8	665.7	1,997.2	1,070.9	1,217.8	2,899.6	399.2	424.9	864.6
3839	Manufacture of consumer electrical and electronic products n.e.c.	127.3	154.5	298.3	227.9	224.9	414.5	77.8	50.3	93.2
3841	Manufacture of electronic industrial apparatus	15.7	87.9	59.8	39.7	131.5	107.6	19.6	34.7	41.0
3844	Manufacture of electronic parts and components	3,603.6	3,109.4	4,479.5	5,642.7	5,075.2	6,780.6	1,519.6	1,484.4	1,863.7
3854	Manufacture of watches and clocks—electronic	3,767.1	5,493.8	7,538.4	4,613.7	6,650.4	8,836.8	705.2	952.3	1,194.1
(a)	Total for the electronics industry	15,885.4	17,030.3	23,565.7	21,854.1	23,657.7	31,033.5	4,959.6	5,222.9	6,568.2
(b)	Manufacturing sector total	86,299.1	80,085.7	107,616.1	130,815.9	126,149.0	160,521.6	36,048.8	36,390.4	44,140.2
(a)	as percentage of (b)	18.4%	21.3%	21.9%	16.7%	18.8%	19.3%	13.8%	14.4%	14.9%

Note: "Purchases of materials, supplies and industrial services" includes the purchases of fuels, electricity, water, other purchases of materials/supplies for production and business operation, payments for sub-contract work and cost of repair and maintenance services.

"Gross output" is the sum of sales of goods produced, machinery produced for own use, resales of goods in same condition, receipts for work performed or industrial services rendered to others, rents received, income from other sources, increase in stocks of finished products and work in progress, less the cost of goods for resale in same condition.

"National accounts value added" is obtained by deducting the following values from gross output (net of stock appreciation for work in progress and finished products): consumption of materials, supplies and industrial services (net of stock appreciation for materials/supplies), payments of rents and rates, rentals for hiring machinery and equipment, and other operating expenses.

Concluding remarks

23. With the commonly agreed lists of product and industry codes now available, research and analysis as well as quotation of figures will hopefully be much facilitated. However, it has to be borne in mind that this area of activity is undergoing rapid changes, and constant development of the lists may prove necessary. At least, the lists will be updated for any relevant additions/deletions/amendments to the SITC and ISIC codes and descriptions, where necessary as part of an annual review of the trade classification system.

24. In the meantime, a study is being undertaken to consider the feasibility of establishing sub-classifications within the list, so as to facilitate more detailed analysis of "electronic products" and the "electronics industry".

LIST OF SITC (REV. 2) ELECTRONIC PRODUCTS

<i>Code</i>	<i>Description</i>	<i>Code</i>	<i>Description</i>
† 751111	Automatic typewriters and word-processing machines	# 761202	Television receivers, monochrome, portable, not incorporating radio-broadcast receivers or sound recorders or reproducers
751212	Calculating machines, electronic, programmable	# 761203	Other television receivers, monochrome
751213	Calculating machines, electronic, non-programmable pocket type	† 761210	Black and white or other monochrome television receivers combined with radio-broadcast receivers or sound or video recording or reproducing apparatus
751214	Calculating machines, electronic, non-programmable, other than pocket type	† 761290	Other black and white or other monochrome television receivers
751220	Accounting machines, bookkeeping machines and similar machines, with electronic memory	762101	Radio-broadcast receivers, designed or adapted for fitting to motor vehicles, incorporating sound recorders or reproducers, complete
751230	Cash registers incorporating a calculating device	762102	Radio-broadcast receivers, designed or adapted for fitting to motor vehicles (excluding receivers incorporating sound recorders or reproducers), complete
751820	Photo-copying apparatus	762201	Radio-broadcast receivers, portable, incorporating sound recorders or reproducers, complete
752100	Analogue and hybrid (analogue/digital) data processing machines	762202	Radio-broadcast receivers, portable (excluding receivers incorporating sound recorders or reproducers), complete
† 752200	Digital automatic data processing machines, containing in the same housing at least a central processing unit and an input and output unit, whether or not combined	762801	Radio chassis (incomplete radio-broadcast receivers)
# 752201	Complete microcomputer systems, comprising the central processing unit and at least one input and one output unit	762807	Other radio-broadcast receivers with clock
# 752202	Other complete digital data processing machines, comprising the central processing unit and at least one input and one output unit	762808	Other radio-broadcast receivers (including complete set of Hi-Fi equipment), incorporating sound recorders or reproducers
† 752300	Digital processing units, whether or not presented with the rest of a system, which may contain in the same housing one or two of the following types of unit: storage units, input units, output units	762809	Other radio-broadcast receivers (including complete set of Hi-Fi equipment but excluding receivers incorporating sound recorders or reproducers)
# 752301	Complete digital central processing units for microcomputers systems; microprocessors consisting of arithmetical and logical and control elements	763110	Gramophones, coin-operated
# 752302	Other complete digital central processing units; other digital processors consisting of arithmetical and logical and control elements	763180	Other gramophones and record players
# 752400	Digital central (main) storage units, separately consigned	763810	Television image and sound recorders and reproducers
752500	Peripheral units, including control and adapting units (connectable directly or indirectly to the central unit, e.g. disc drives, tape decks, printers, etc.)	763881	Sound recorders, cassette tape type
752800	Off-line data processing equipment, n.e.s. (e.g. punching and verifying machines, card sorting machines, etc.)	763882	Sound recorders, cassette tape type, for office use
759190	Parts, n.e.s. of and accessories for use with photo-copying and thermo-copying apparatus	763888	Dictating machines and other sound recorders and reproducers, n.e.s.
759901	Parts, n.e.s. of and accessories for adding, calculating, accounting, cash registers, postage-franking, ticket-issuing and similar machines	763889	Dictating machines and other sound recorders and reproducers, n.e.s. for office use
# 759902	Electronic components for computers (e.g. integrated microcircuit boards, memory core planes, etc.)	764101	Electrical line telephonic apparatus
759909	Parts, n.e.s. of and accessories for the data processing equipment of group 752	764102	Electrical line telegraphic apparatus
# 761101	Television receivers, colour, portable, incorporating radio-broadcast receivers or sound recorders or reproducers	764201	Microphones and stands therefor
# 761102	Television receivers, colour, portable, not incorporating radio-broadcast receivers or sound recorders or reproducers	764202	Loudspeakers
# 761103	Other television receivers, colour	764203	Audio frequency electric amplifiers
† 761110	Colour television receivers combined with radio-broadcast receivers or sound or video recording or reproducing apparatus	# 764204	Chassis for mounting loudspeakers
† 761190	Other colour television receivers	# 764205	Cabinets specially designed for loudspeakers
# 761201	Television receivers, monochrome, portable, incorporating radio-broadcast receivers or sound recorders or reproducers	† 764207	Headphones, earphones and combined microphone/speaker sets
		# 764208	Headphones
		764209	Amplifier units, consisting of microphones, audio-frequency amplifiers and loudspeakers, n.e.s. (including other Hi-Fi speaker system)
		764301	Walkie-talkie
		764308	Paging apparatus

<i>Code</i>	<i>Description</i>	<i>Code</i>	<i>Description</i>
764309	Other radio transmitters and transmitter-receivers	776810	Piezo-electric crystals, mounted
764811	Radio-telephonic receivers	776890	Other electronic components and parts, n.e.s. of the components falling within group 776
764812	Radio-telegraphic receivers	778831	Fire alarms and smoke detectors
764821	Television cameras	778832	Burglar alarms
764822	Close-circuit television system	778840	Electrical capacitors (condensers), fixed or variable
764831	Radio navigational aid apparatus, radar apparatus and radio remote control apparatus	871091	Lasers (other than laser diodes)
764839	Telecommunications equipment, n.e.s.	† 871092	Liquid crystal devices
764911	Parts, n.e.s. of electrical line telephonic apparatus	874401	Meters, photographic exposure, light
764912	Parts, n.e.s. of electrical line telegraphic apparatus	874810	Electronic automatic regulators (controllers)
764920	Parts, n.e.s. of microphones, loudspeakers and audio-frequency electric amplifiers	874820	Electronic instruments and apparatus for measuring or detecting ionizing radiations
# 764931	Aerials for television receivers	874830	Other electronic measuring, checking, analysing or automatically controlling instruments and apparatus
764932	Parts, n.e.s. of television receivers (except aerials)	881121	Photographic electronic flash unit
764933	Parts, n.e.s. of radio broadcast receivers	# 881213	Cinematographic sound recorders and sound reproducers, 8 mm
# 764934	Earphones	# 881225	Cinematographic sound recorders and sound reproducers, 16 mm
† 764938	Aerials and aerial reflectors of all kinds; parts suitable for use therewith	# 881226	Cinematographic sound recorders and sound reproducers, n.e.s.
764939	Parts, n.e.s. of telecommunications equipment, n.e.s. (falling within heading 764301, 764309, 764811, 764812, 764821, 764822, 764831 and 764839)	885111	Electronic watches, digital (including LCD and LED)
764991	Gramophone needles and stylii	885113	Electronic watches, quartz analogue
764999	Parts, n.e.s. of and accessories for gramophones (excluding needles and stylii), sound recorders and reproducers and tape recorders, other than sound recording media	885114	Electronic watches, digital-analogue
771210	Static converters, rectifiers and rectifying apparatus	885131	Watch movements, electronic, assembled
† 772105	Electronic connectors	885210	Instrument panel clocks and clocks of a similar type, for vehicles, aircraft or vessels
772201	Printed circuits n.e.s.	885221	Clocks, electronic, complete
# 772209	Parts, n.e.s. of printed circuits	885251	Clock movements, electronic, assembled
772301	Resistors, fixed or variable (including potentiometers), other than heating resistors, n.e.s.	# 885291	Liquid crystal displays for watches
772309	Parts, n.e.s. of resistors, fixed or variable, other than heating resistors	# 885293	Liquid crystal displays for clocks
† 773119	Optical fibre cables (including glass fibre for communication)	894227	Toys containing internal combustion motor, radio controlled
† 775863	Domestic microwave ovens	894229	Toys (excluding dolls), metal, containing electric motor, radio controlled
776100	Television picture tubes, cathode ray	894232	Toys (excluding dolls), plastic, containing electric motor, radio controlled
776201	Television camera tubes	894234	Electronic components for TV games and electronic games
776209	Other electronic valves and tubes	894242	TV games' cartridges
776301	Diodes (2-terminal devices with a single p n junction)	894243	TV games
776302	Transistors (3-terminal devices comprising two junctions)	894244	Electronic games, hand-held
776303	Similar semi-conductor devices (thyristore, triacs, varactors, field effect devices, gunn effect devices, light emitting diodes, etc.)	894245	Electronic games, not hand-held
776305	Photocells (including photodiodes and phototransistors)	895218	Pen-watch
776401	Microassemblies	898250	Electro-magnetic, electrostatic, electronic and similar musical instruments (e.g. pianos, organs, accordions)
776402	Integrated microcircuits, mounted, whether or not encased	898311	Tapes for sound recording, cassette type
776403	Integrated microcircuits, unmounted, in the form of chips or undiced wafers	898312	Tapes for sound recording, other than cassette type
		898318	Video tapes, not recorded
		898319	Other sound (or similar) recording media, not recorded
		898321	Recorded tapes, sound, cassette type

ANNEX

<i>Code</i>	<i>Description</i>
898322	Recorded tapes, sound, other than cassette type
898328	Video tapes, recorded
898329	Other sound (or similar) recording media, recorded
899610	Hearing aids

- Notes:* (1) † items introduced as from 1986.
 (2) # items deleted as from 1986.
 (3) The following summarizes the reclassification of SITC codes in 1986:

<i>Item codes in 1985</i>	<i>Item codes to which they are reclassified in 1986</i>
752201, 752202, 752301 & 752302	752200, 752300
752400	752500
759902	759909
761101	761110
761102 & 761103	761190
761201	761210
761202 & 761203	761290
881213, 881225 & 881226	763888
764208 & 764934	764207
764204, 764205	764920
764931	764938
772209	772201
885291 & 885293	871092