



# Research Report on Russian Market of Electronic Components

Conducted by

The Analytical Center for Modern Electronics ("Sovel" LLC)

Commissioned by: Association of Suppliers of Electronic Components

Data collection period: March - June 2019

#### **Table of Contents**

Research Report on Russian Market of Electronic Components	1
Research Area:	6
Research Methodology	ε
2019 Report Features	ε
Russian electronic components market capacity and growth in the years 2002-2019	7
Quarterly Monitoring of Distribution Sales of Electronic Components	10
Market Segmentation by Customer Group	12
Market segmentation by product group	14
Electronic Components Supply Chains	17
The market changes forecast	21
Russian Electronic Components Manufacturers	27
Russian semiconductor components manufacturers	28
Integral, Minsk, https://www.integral.by/ru	29
Mikron, Moscow, http://mikron.ru/	30
VZPP-S, Voronezh, www.vzpp-s.ru	30
Angstrem, Moscow, www.angstrem.ru	31
Kremny EL, Bryansk, http://group-kremny.ru	32
Milandr, Moscow, http://milandr.ru	32
"Voskhod" KRLZ, Kaluga, www.voshod-krlz.ru	33
Proton, Oryol, http://www.proton-orel.ru/	34
Electrovipryamitel, Saransk, http://www.elvpr.ru/	34
Pulsar, Moscow, http://www.gz-pulsar.ru/	35
Russian manufacturers of passive and electromechanical components	36 -
Elecond, Sarapul, www.elecond.ru	37
Giricond, St. Petersburg, http://www.giricond.ru	37
Kulon, St. Petersburg, http://www.kulon.spb.ru/	37
Meson, St. Petersburg, http://www.meson-factory.com/	38
Erkon, Nizhny Novgorod, https://www.erkon-nn.ru/	38
Resurs, Bogoroditsk, http://aoresurs.com/	38
Morion, St. Petersburg, http://www.morion.com.ru/	39
"Meteor" Factory, Volzhsky city, www.meteor.su	39
Elecon, Kazan, https://zavod-elecon.ru/	39

Iset, Kamensk-Uralsky	r, http://www.uzes-iset.ru/	40
Severnaya Zarya, St. P	etersburg, http://relays.ru	40
Russian manufacturers o	of power supply modules	40
NPO Energy Electronic	cs, Voronezh, https://npo-enel.ru/	41
AEIEP, Moscow, http:/	//www.aeip.ru/	41
Elektroninvest, Mosco	ow, http://www.elin-gk.ru/	41
ElTom, Tomilino, http	://eltom.ru	42
MMP-Irbis, Moscow, v	www.mmp-irbis.ru	42
Other groups of Russian-	-made electronic components	42
Russian Distributors of Elec	ctronic Components	43
General Characteristics of	of Russian Distributors Market	43
25 largest Russian distrik	outors by sales volume	45
Analysis of Supply Mode	ls of Russian Electronic Components Distributors	46
Descriptions of the 25 la	rgest Russian Electronic Components Distributors	48
COMPEL, Moscow, htt	tps://www.compel.ru/	48
Symmetron, Moscow,	http://www.symmetron.ru	49
MT-Systems, Saint Pet	tersburg, http://www.mt-system.ru	50
Milandr, Moscow, htt	p://www.milandr.ru	50
ZolotoyShar (ZAO Spe	tsElektronkomplekt"), Moscow, http://www.zolshar	.ru51
Radiant Elcom, Mosco	ow, http://www.radiant.su	52
ELTECH, St. Petersburg	g, http://www.eltech.spb.ru	52
PROSOFT, Moscow, ht	ttp://www.prosoft.ru	53
PT Electronics (PetroIr	nTrade), St. Petersburg, http://ptelectronics.ru	54
DON, Moscow, http://	/ооо-дон.рф	55
Exiton, Smolensk, ww	w.exiton-ek.ru	55
Chip&Dip, Moscow, h	ttps://www.chipdip.ru/	56
EFO, St. Petersburg, h	ttp://www.efo.ru	56
Platan, Moscow, http:	://www.platan.ru	57
Promelectronica, Yeka	aterinburg, http://www.promelec.ru	57
Macro Group, St. Pete	ersburg, http://www.macrogroup.ru	59
MicroEM, Moscow, ht	tp://microem.ru	59
Argussoft, Moscow, h	ttp://www.argussoft.ru	60
RSP (Regional Systemi	ic Projects), Moscow, http://www.rssp.ru	61
Gamma St. Petersburg	g. Saint-Petersburg, http://www.gamma.spb.ru	62

	Scanti, Moscow, http://www.scanti.ru	62
	YE-International, http://www.yeint.ru	62
	Promtechkomplekt, Moscow, http://www.ptkgroup.ru	63
	Gamma Plus, Vyborg, http://www.icgamma.ru	64
	Elitan, Izhevsk, http://www.elitan.ru	64
Fc	oreign Electronic Components Distributors	66
	The largest global Distributors	66
	Avnet Silica, https://www.avnet.com/wps/portal/silica/	67
	Arrow , https://www.arrow.com	67
	EBV, https://www.avnet.com/wps/portal/ebv/	68
	FutureElectronics , www.futureelectronics.com	69
	Rutronik, https://www.rutronik.com	69
Di	istributors of passive and electromechanical components	70
	Avnet Abacus, https://www.avnet.com/wps/portal/abacus/	70
	TTI, https://www.ttieurope.com	70
	Digi-Key Electronics , https://www.digikey.com	70
	Mouser Electronics , https://eu.mouser.com	71
Fc	oreign semiconductor components manufacturers	72
	Texas Instruments, www.ti.com/ru	75
	Analog Devices, www.analog.com/ru	75
	STMicroelectronics, www.st.com	76
	Xilinx, www.xilinx.com	77
	Infineon, www.infineon.com	77
	Microchip, www.microchip.com.ru	78
	NXP, www.nxp.com	78
	MStar, www.mstarsemi.com	78
	BMTI, (Beijing Microelectronic Technology Institute)	78
	Intel FPGA (Altera), www.altera.com	79
Sι	ubsegments of foreign-made semiconductor components market	80
	Microcontrollers and microprocessors market	81
	Market of analog and digital-analog ICs	81
	Market of power semiconductor components and modules	81
	FPGA market	82
	Market of semiconductor microwave components and modules	87

Market of identification ICs	82
Market of foreign made electromechanical components	83
Market of foreign-made passive components	84
Market of foreign-made modular power sources	85
Foreign-made LED market	86
Foreign-made wireless communication and navigation modules	87
Other Product Groups	88
Description and analysis of customer segments	89
Specialized Equipment Manufacturers Market	89
Industrial electronics manufacturers market	90
Production of industrial automation and control Instrumentation	92
Energy meters production	93
Industrial power electronics production	94
IT equipment manufacturers market	95
The market of security systems manufacturers	97
The market of Automotive Electronics manufacturers	99
Market of lighting equipment and information boards manufacturers	100
Market of trade and fiscal equipment manufacturers	103
Market of medical electronics manufacturers	103
Market of Consumer electronics manufacturers	104
Market of Contract Manufacturers of Electronics	104
25 largest Russian manufacturers of electronic equipment for civil use	106
Description of the 10 largest customers of electronic components – manufacturers of civil-	108

#### Research Area:

Research area includes the Russian market of semiconductor, passive, electromechanical components and electronic modules which are used in the manufacture of electronic equipment. PCBs market is not considered in this research. Sales of large displays for monitors and TV-sets, as well as sales of computer components for SKD assembly of computer equipment are left out. The research also did not include integrated supplies of components by overseas manufacturers of consumer electronics for their assembly facilities in Russia (Samsung Electronics Rus Company and LG Electronics Rus Company), since decisions on selection of components and suppliers are made abroad.

Due to large-scale integration of Belarusian and Russian economies, close ties between the companies of these two countries, and also considering the special customs regime, the market of electronic components of Russia and Belarus is viewed as a single market. For the sake of brevity, in the Research we call it the Russian market of electronic components.

#### **Research Methodology**

Data collection technique: open-ended interviews conducted face-to-face or via phone, structured telephone interviews, examination of reports of joint-stock companies, analysis of customs statistics.

Information analysis and verification: assessments of the distributor market are checked against the assessments of the market of electronic component manufacturers and against assessments of the market of customers of electronic components. Data on the largest distributors, manufacturers and customers of the components are collected from multiple sources—the company data, assessments from competitors, assessments from suppliers or consumers. Final research assessments are made taking into account the data from all the above sources.

#### 2019 Report Features

The report refined and adjusted estimates of past years, sales of 60 of the most prominent distributors on the market. Sales of Compel and PT Electronics are significantly adjusted. The estimate of the total sales of Russian distributors for 2017 was adjusted by a decrease of 10%. Estimates of the volume of deliveries through packers were, on the contrary, underestimated in previous years, they were adjusted by an increase.

### Russian electronic components market capacity and growth in the years 2002-2019

The volume and growth of the Russian electronic components market in dollar terms are presented in Fig. 1 and in Table. 1. The market's volume is calculated in the prices of the end customer, including VAT. Market growth is presented as the ratio between sales volume in the year under review to the sales volume in the previous year.



<sup>\*2019 -</sup> forecast

Fig. 1. The Capacity and Growth of the Russian electronic components market 2002-2019

Table 1. The Capacity and growth of the Russian electronic components market 2009-2019

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*
Market Volume, mln. USD	1369	1848	2310	2485	2535	2745	2353	2289	2724	2915	2769
Market Growth, %	-35%	35%	25%	8%	2%	8%	-14%	-3%	19%	6%	-5%

Market growth in dollar terms was about 7%. Of these, the growth of physical volumes of electronic components supplies in 2018 amounted to about 2%, the remaining 5% were provided by the growth of prices for components associated with a deficit in many product groups on the world market.

In 2019, we forecast a market decline of about five percent.

The total market volume in Table 2 and Table 3 is separated by supply chains.

Changes in the market of imported components in physical volumes shall be preferably evaluated according to Table 2, in dollar terms. The average growth of dollar prices for imported components amounted to approximately 5% in 2018.

The average annual dollar / ruble exchange rate in 2018 is 7% higher than in 2017. In 2019, the dollar is expected to grow by another 4%, according to forecasts and plans of the Ministry of Economic Development of the Russian Federation.

The change in the volume of the Russian-made components market in physical volumes is better estimated by table 3, in ruble terms. By our estimates, the ruble prices for Russian components have increased by an average of 5%. At the same time, the average annual ruble / dollar exchange rate fell by 7%.

Application of Russian components in the military and aerospace engineering is prescribed by regulatory documents; substitution of these components by imported counterparts is prohibited.

On the contrary, in the segments of civil production, mainly imported components are used, Russian analogues are absent in most of the nomenclature. In that part of the nomenclature, where there are Russian analogues of imported components, as a rule, their price is higher because of small production volumes.

The application field for Russian-made components in civil products market has changed insignificantly over the past year. Expansion of Russian-made components supplies to civil use markets is expectable in the coming years. This will also be facilitated by reduction of the government orders volume and expansion of sanctions and export restrictions on the supply of imported components.

The tables show the market volume of distributors of electronic components, as the total sales volume of Russian and global distributors to end users, including VAT. Direct sales of global distributors are modified to the prices of the Russian stock (k = 1.35 including logistics, duties and taxes).

Table 2. Capacity and growth of the Russian electronic components market in 2018 by supply channels **in dollar terms.** 

Market volume	Supplies Volume 2018, mln. USD.	Growth 2018/2017, %,USD	Share in the total market volume, %
Distribution total available market (DTAM)	2000	8%	70%
Market volume for components produced in Russia	835	-1%	29%
Market volume for imported components	2115	11%	74%
Market volume for Russian distributors	1640	8%	58%
Volume of direct sales of foreign distributors	360	10%	13%
Volume of direct sales of foreign manufacturers	380	12%	13%
Volume of direct sales of Russian manufacturers	535	-1%	19%

Table 3. Capacity and growth of the Russian market of electronic components in 2018 by supply channels in **ruble terms**.

Market volume	Supplies Volume 2018, bln. RUB.	Growth 2018/2017, %, RUB	Share in the total market volume, %
Distribution total available market (DTAM)	125	16%	70%
Market volume for components produced in Russia	52	6%	26%
Market volume for imported components	133	19%	74%
Market volume for Russian distributors	103	16%	58%
Volume of direct sales of foreign distributors	23	18%	13%
Volume of direct sales of foreign manufacturers	24	20%	13%
Volume of direct sales of Russian manufacturers	34	6%	16%

## Quarterly Monitoring of Distribution Sales of Electronic Components

The schedule of changes in the sales volume of distributors of electronic components quarterly from 2014 to 2018 and the first quarter of 2019 is shown in Fig. 2, quarterly monitoring data for two years - in Table 4.

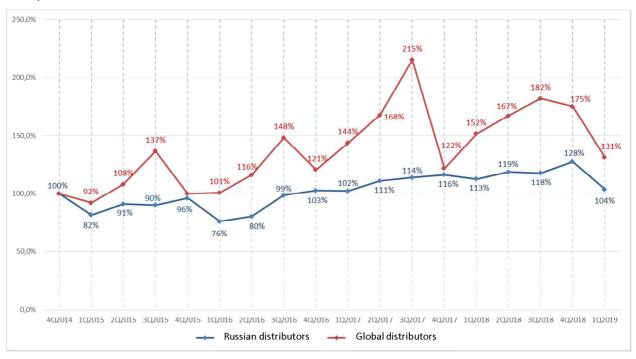


Fig. 2. A graph of the quarterly changes in the volume of sales by Russian and global distributors of electronic components.

Table 4. The change in volume of distribution sales of electronic components relative to previous periods

	1Q2017	2Q2017	3Q2017	4Q2017	1Q2018	2Q2018	3Q2018	4Q2018	1Q2019
Russian Distributors - relative volume compared to 4Q 2014	102,3%	111,0%	114,0%	116,4%	112,7%	118,8%	117,8%	127,6%	103,8%
growth compared to the same period of the previous year	34,5%	38,1%	15,5%	13,3%	10,2%	6,9%	3,4%	9,7%	-7,9%
growth compared to the previous quarter	-0,4%	8,6%	2,7%	2,1%	-3,2%	5,4%	-0,8%	8,3%	-18,7%
Global Distributors – relative volume compared to 4Q 2014	143,9%	168,0%	215,4%	123.5%	151.6%	167,2%	182,1%	175,1%	131,2%
growth compared to the same period of the previous year	42,8%	44,6%	45,3%	2.3%	5.4%	-0,4%	-15,5%	43,8%	-13,5%
growth compared to the previous quarter	19,2%	16,7%	28,3%	-42.7%	24.5%	10,3%	8,9%	-3,8%	-25,1%

100% for the graph of Russian distributors correspond to sales volume of approximately \$ 500 million per quarter. 100% of the global distributors graph correspond to sales volume of approximately \$ 100 million per quarter.