

# Ivent Solutions Market Trend Update

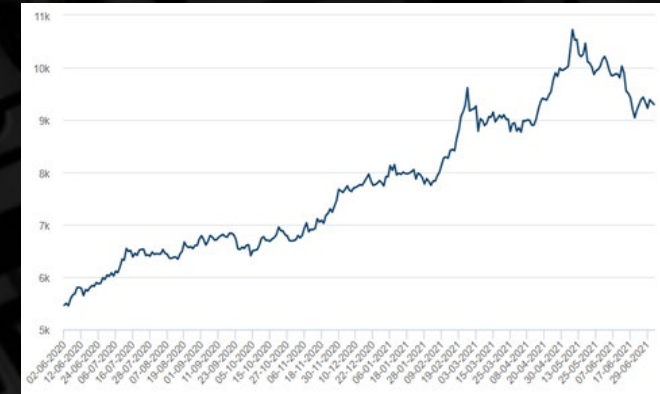
## July 2021

### Rising Raw Material Prices – What Strategies Can We Follow?

In February/March 2021 we all started to note that the raw material prices of some commodities (silicon, lead, copper, plastics, etc...) starting increasing at a greater than normal rate. Some analysts are predicting a multi-year increase in raw material prices, so the trend over the last 5 months we believe is here to stay. Bloomberg recently came up with an interesting article on this topic... When Does a Commodities Boom Turn Into a Super-Cycle...?

*“A surge in commodity prices has Wall Street banks gearing up for the arrival of what may be a new super-cycle — an extended period during which demand drives prices well above their long-run trend. A major impetus is the massive stimulus spending by governments as they juice up their economies following pandemic lockdowns. The evidence includes surging copper and agricultural prices and oil back at pre-Covid-19 levels. One theory is that this could be just the start of a long-term (years) rally in appetite for raw materials across the board, but the reality is more complicated.”*

The prices of copper, tin, nickel, and many other commodities have been increasing in price on a monthly basis. This is exacerbated by sky-high shipping costs that may not ease until 2022 or 2023. The cost of chartered freight vessels has increased 10-fold in the last 12 months alone. Shipping companies who used to lock in pricing up to a year ahead are now only able to lock in charter pricing on vessels from month to month. This trend is expected to continue. Throw into the mix the increasing cost of labour in China and ongoing tension between the East and West and we have a perfect storm for the supply chain and product pricing structures. Here is one of the most obvious examples, copper, with the LME chart showing an increase from around USD5500 per ton 12 months ago to USD9500 per ton (even with some recent easing in the market from USD10500):



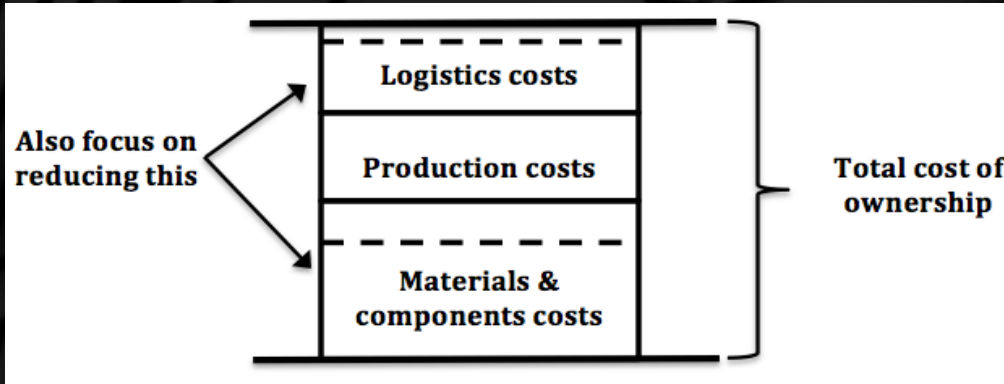
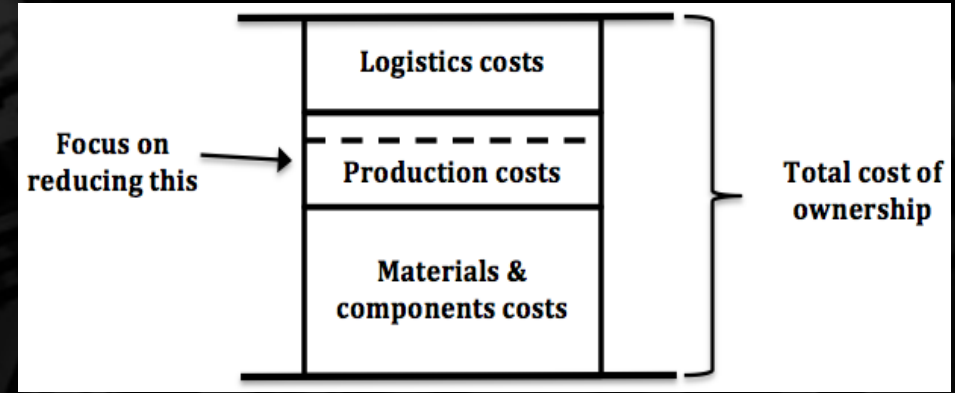
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Our quality auditors in China suggest that there are six common approaches on their “shortlist” in terms of combatting raw material price rises. This list is not exhaustive but does offer some food for thought in these “unprecedented” times (haven’t we all grown to hate that term...). 🤖

### **1. Basic sourcing... always looking for cheaper suppliers:**

This option makes sense in some industries. Most apparel buyers (for example) seem to always be looking for the ‘cheapest needle’, all the way to Myanmar (which is going through a severe political crisis) and East Africa. The point being that going for the cheapest price can bring with it other risks. In many industries, such as electronics, the gains from this approach are negligible. Manufacturers of commoditized products already operate on thin margins and struggle to offer more concessions. Our copper wire is a perfect example of a product that is almost 100% sensitive to movements in the LME market rates. As the drawing here suggests, there are other ways to cut costs.



### **2. Re-engineer the cost drivers without removing the quality:**

Take a more holistic view of the costs and use the “Full Cost Approach” to sourcing. Try to think of ways to redesign your product itself utilising a different structure, different materials and/or components, reducing unneeded features, and so on. That is what they call “value engineering”.

There is an interesting example that we can look at from GE (General Electric) in the 1960s:





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In the original GE design, complex custom molding were required and six types of cable assemblies were used. Typical costs for one type was \$250 each. After value analysis was used, the leads, breakouts, and connectors were assembled using oversized tubing, then heat-shrink tubing was used. Typical costs for each unit fell to \$100 as well as a simplification of production process. This shows us careful analysis of what we are building can induce cost savings and potentially also simplify the supply chain (reduced leadtimes).

Maybe your metal parts are CNC-machined out of a full block of material, while some competitors utilise die-casting with only a small amount of CNC finishing. Their unit cost may be 30-40% lower than yours with a shorter leadtime attached, although up front tooling may be required.

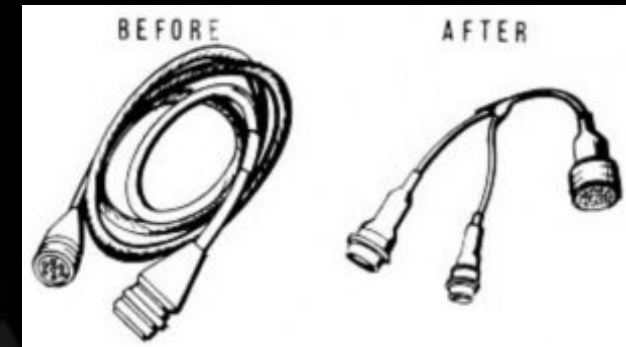
Consider looking at packaging also. Is it unnecessarily bulky and complicated? Sometimes thinner, more compact packaging can protect the product just as well whilst allowing for lower freight costs (and potentially more environmentally friendly).

### **3. Strategic sourcing... working closely with key suppliers:**

This approach works particularly well if you develop/engineer new products and you have an open and productive relationship with key suppliers that contribute engineering resources and ideas. Examples such as Ikea realizing cost savings between 5% and 15% after following this approach and Chrysler setting up a similar system in the 1990's that generated more than a billion USD of annual savings.

### **4. Make a leap from 'buying' to 'making':**

Maybe your sales are not very seasonal and the manufacturing of your product (at least final assembly) does not require very expensive equipment or deep know-how. Starting at a certain level, you might generate substantial benefits by handling manufacturing of some components yourself. With good process engineering, you might be able to make the products at a lower cost and regain some control of the supply chain. The location of your factory may be closer to your main market, leading to shorter lead times for your customers and a more upscale image (ie... "it's not made in China"). Over time, by controlling manufacturing, you might find ways to improve your processes and your products in a way that brings more value to your



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customers and/or cuts your costs. If you tend to make customized equipment, being closer to your market means a better ability to problem-solve and bring unique solutions.

### **5. Differentiation: a way to raise your prices over time**

Raising your prices may be impossible if you sell the same product to retailers or even directly to consumers. You might actually be forced to decrease your prices in an overly competitive market!

The solution is often to develop new versions of your key products:

- If you sell to consumers, find a source of dissatisfaction with existing products (read reviews on Amazon, etc.) and find a way to improve
- If you sell to businesses, know more about their needs, and find a way to provide more value, typically with a new feature(s).

### **6. Niche marketing**

Not only are costs going up, but Chinese companies are becoming better at selling directly into global markets (ie AliExpress). B2C marketing is a serious weakness for most manufacturers, but more and more are now looking to set up Kickstarter campaigns, Amazon trade accounts, and search engine optimization projects.

What is a key advantage that the Chinese B2C customers don't have? An understanding of the segments of your own market, and the ability to pick the right message to reach some of those segments based on the needs of each unique market. Therefore offering niche messages to customers in your market offers the ability to value add and increase sell prices.

	General Marketing	Niche Marketing
Market Segment	Covers wide market segment including variety of products & services	Focuses on niche area of any market segment with selective product & services
Competition	Faces more competition	Faces less competition
Product life cycle	General market products are less effective at the initial stage of PLC	Niche market products are more effective at the initial stage of PLC
Customer Retention	Less chances of customer retention	More chances of customer retention



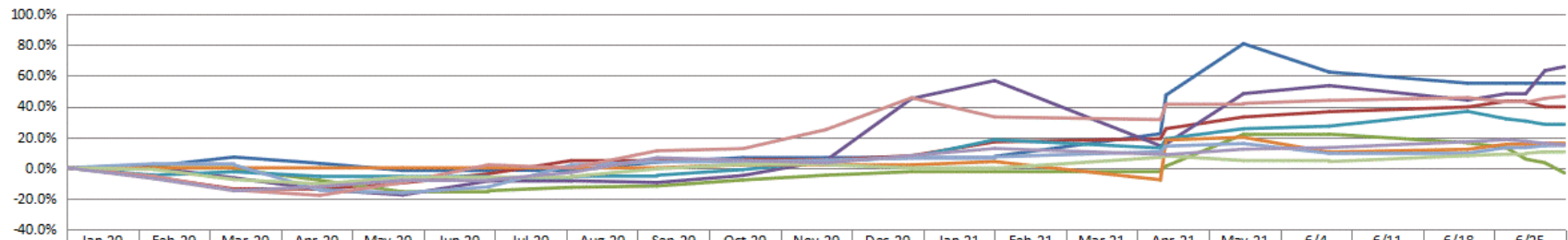


## China Raw Material Price Statistics

If you have been following the costs of China raw materials this year you will have seen that the prices have been rising rapidly in most cases. Add into the mix the shipping delays and increased logistics costs and it is becoming a very expensive year for importers. We are continuing to track the raw material costs for some key materials and the results this month show that some costs are stabilizing, albeit at a higher level than before:

Date	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	6/4	6/11	6/18	6/25	Yearly %	Weekly %
Battery (lithium cobalt oxides)	0.0%	1.2%	7.0%	2.9%	-1.7%	-1.5%	-1.6%	3.3%	6.6%	6.7%	6.7%	7.4%	22.2%	47.4%	80.8%	62.4%	55.1%	55.1%	55.1%	55.1%	55.1%	57.81%	0.00%
Brass (Φ8-20T2)	0.0%	-6.1%	-13.3%	-13.7%	-9.3%	-3.9%	4.7%	4.7%	5.3%	5.2%	7.9%	16.9%	18.9%	25.5%	33.1%	36.5%	39.6%	43.4%	43.0%	39.7%	39.1%	54.76%	-0.41%
Paper for color box (157g金东长鹤文化印刷双铜)	0.0%	0.0%	-0.3%	-3.0%	-15.6%	-14.9%	-12.7%	-11.3%	-7.9%	-4.3%	-2.5%	-2.4%	-1.9%	1.1%	21.8%	22.0%	16.3%	13.1%	5.7%	3.3%	-2.3%	37.81%	-6.35%
Silicone (110)	0.0%	0.0%	-6.5%	-14.0%	-17.6%	-8.5%	-8.4%	-9.5%	-5.0%	4.7%	45.1%	56.8%	14.3%	15.6%	43.3%	53.6%	44.1%	43.2%	48.2%	63.3%	65.8%	74.97%	1.54%
AL alloy ADC 12 (江西)	0.0%	-4.3%	-2.5%	-5.6%	-5.7%	-6.2%	-5.4%	-4.3%	-1.2%	4.2%	6.8%	18.3%	12.9%	19.0%	25.5%	27.1%	36.8%	31.9%	30.5%	23.3%	27.6%	45.05%	-0.56%
Paper for carton (AA级高瓦120G)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	1.9%	1.9%	4.1%	-7.8%	18.2%	19.9%	10.2%	12.1%	15.3%	15.3%	16.1%	16.1%	12.09%	0.00%
Paper for carton (箱板纸A级牛卡130g)	0.0%	2.6%	1.9%	-14.5%	-16.3%	-12.4%	1.8%	3.9%	3.9%	5.1%	6.4%	7.1%	10.6%	14.2%	15.8%	9.4%	9.5%	13.2%	13.2%	14.5%	14.5%	30.81%	0.00%
ABS (ABS-15E1宁波台化)	0.0%	-5.4%	-14.4%	-17.9%	-9.5%	1.9%	-0.1%	11.1%	12.5%	24.9%	45.6%	33.1%	31.4%	41.4%	42.0%	43.9%	45.7%	43.1%	42.6%	45.3%	46.6%	60.99%	0.90%
Stainless steel (304/2B 0.4MM)太原	0.0%	-1.0%	-7.6%	-10.4%	-6.1%	-6.0%	-5.6%	-0.6%	2.3%	2.0%	0.0%	-0.3%	6.9%	7.7%	4.8%	4.1%	8.0%	8.9%	9.5%	10.4%	11.0%	14.95%	0.53%
Zinc alloy (Zamak5)	0.0%	-7.0%	-14.9%	-12.2%	-8.2%	-8.0%	-3.0%	6.6%	4.9%	3.2%	8.0%	12.6%	8.8%	8.5%	12.1%	13.2%	17.0%	18.3%	17.3%	15.9%	15.1%	27.35%	-0.74%

Raw material cost evolution since Jan-2020



	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	6/4	6/11	6/18	6/25
Battery (lithium cobalt oxides)	0.0%	1.2%	7.0%	2.9%	-1.7%	-1.5%	-1.6%	3.8%	6.6%	6.7%	6.7%	7.4%	22.2%	47.4%	80.8%	62.4%	55.1%	55.1%	55.1%	55.1%	55.1%
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Paper for carton (AA级高瓦120G)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	1.9%	1.9%	4.1%	-7.8%	18.2%	19.9%	10.2%	12.1%	15.3%	15.3%	16.1%	16.1%
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Zinc alloy (Zamak5)	0.0%	-7.0%	-14.9%	-12.2%	-8.2%	-8.0%	-3.0%	6.6%	4.9%	3.2%	8.0%	12.6%	8.8%	8.5%	12.1%	13.2%	17.0%	18.3%	17.3%	15.9%	15.1%



**WHEN YOU'RE AT WORK**



**TRYING TO STAY POSITIVE**



**Lavender Reduces Stress**



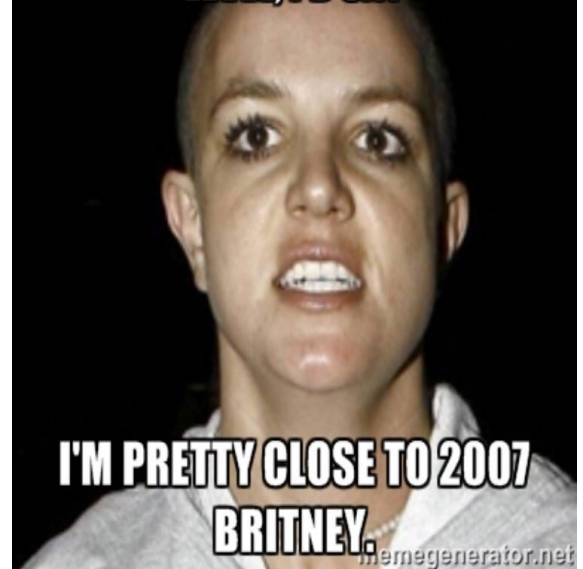
**WHEN YOU'VE HAD A ROUGH DAY  
BUT YOU'RE TRYING TO STAY POSITIVE.**

SammichesPsychMedcs.com



**"It's great. I'm  
great. Everything's just great."**

**IF I HAD TO RATE MY STRESS  
LEVEL, I'D SAY**



**I'M PRETTY CLOSE TO 2007  
BRITNEY.**

memegenerator.net

**WHO SAID WORK IS STRESSFUL?**



**I'M 35 AND I FEEL GREAT**



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**NZD versus AUD - AU\$0.935 vs NZ\$1.00** —



**NZD versus USD - US\$0.705 vs NZ\$1.00** ↓



**NZD versus EUR - EU\$0.590 vs. NZ\$1.00** ↓



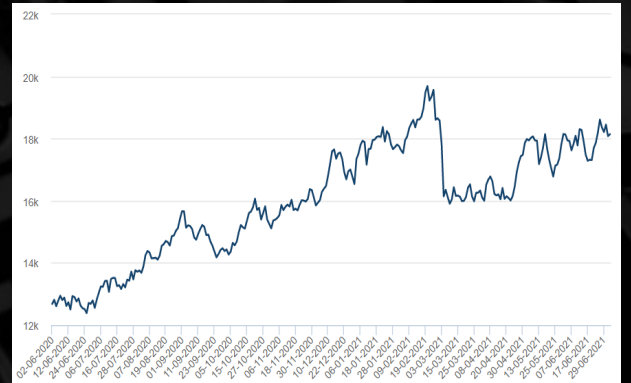
**Copper - USD9300 / tonne** ↓



**Lead - USD2300 / tonne** ↑



**Nickel - USD18100 / tonne** —



# This Month in Tech History...

July 23, 1903 – Ford sells its first Model A car to Ernst Penning of Chicago, Illinois.

July 29, 1914 – The first test call is made on the newly completed transcontinental telephone line, taking place between New York and San Francisco. The last pole was erected and the line completed two days earlier on July 27th, but commercial service did not start until January 25th of the next year. The sixth month delay was due to AT&T's wish to publicize the service in conjunction with San Francisco's 1915 World Fair.

July 14, 1918 – Computer pioneer Jay Forrester was born. With Robert Everett, Forrester led one of the most important early computer projects, the Whirlwind. Completed in 1951, the Whirlwind could store 2,048 16-digit words with its 4,500 vacuum tubes taking up more than 3,000 square feet of space.

July 26, 1963 – Syncom 2, the world's first geosynchronous satellite, is launched. Syncom 1 was intended to be the first geosynchronous satellite, but an electronics failure rendered the satellite inoperable during the ascent to orbit.

July 18, 1968 – Robert Noyce, Andy Grove and Gordon Moore incorporated Intel, a company they built on production of the microprocessor. The component that has allowed computers to increase in speed and decrease in size, the microprocessor also built Intel, whose Pentium processors now power most IBM-compatible personal computers.

July 31, 1971 – Using the battery-powered Lunar Roving Vehicle (LRV), Astronaut David Scott of the Apollo 15 mission becomes the first person to drive a vehicle on the Moon. The LRV was used during the last three missions to the Moon, Apollo 15, 16, and 17. The three LRVs used during the missions still remain on the surface of the moon.

July 27, 1981 – About two weeks before IBM begins shipping the first IBM PC, Microsoft buys the full rights to the operating system 86-DOS, formerly known as QDOS (Quick and Dirty Operating System), from Seattle Computer Products for \$50,000. Microsoft had previously paid \$25,000 to SCP for a non-exclusive license in December 1980 in order to begin porting the operating system to the IBM PC, which used the Intel 8088 processor. Microsoft renamed 86-DOS to MS-DOS and licensed it to IBM as PC-DOS. SCP would later sue Microsoft claiming fraud because Microsoft did not reveal IBM as a licensee. The case was settled in SCP's favor for 1 million dollars, a fraction of the annual revenue Microsoft was receiving from MS-DOS and PC-DOS.

July 9, 1982 – Disney released Tron, the first mainstream film to use extensive computer-generated graphics and special effects. Starring Jeff Bridges, the film also had a computer-related plot in which a programmer is transported into a computer to fight a program called Master Control and replace it with the more reliable Tron system.





# 2021



## JANUARY

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## FEBRUARY

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## APRIL

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### PRC HOLIDAYS

Events	Dates Observed
New Year's Day	January 1-3
Chinese New Year	February 11-17
Tomb Sweeping Day	April 3-5
Labour Day/May Day	May 1-5
Dragon Boat Festival	June 12-14
Mid-Autumn Day	September 19-21
National Day	October 1-7

- Minimal production impact.
- High production impact and requires planning accordingly.
- Note that factories typically take two weeks for Chinese New Year but may vary.

## JULY

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## AUGUST

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## SEPTEMBER

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## OCTOBER

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## NOVEMBER

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## DECEMBER

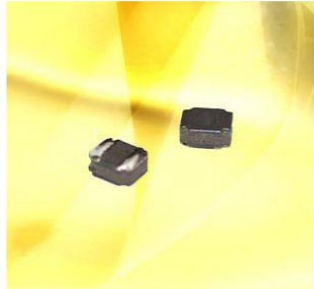
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## SPECIFICATION OF BSF2512BNRM SERIES

### FEATURES

1. Low profile construction and miniature size.
2. Magnetic shielded construction.
3. High current saturation.
4. For new generation portable product D/D converter unit.



### APPLICATIONS

DVD · DSC · PDA · LCD display ·  
Smart phones · HDD · etc.

### ORDERING CODE

**BSF6030BNRM R68 M T**  
(1) (2) (3) (4)

- (1) PRODUCT TYPE CODE AND SIZE CODE  
(2) INDUCTANCE  
(3) INDUCTANCE TOLERANCE ( M : ±20%, N : ±30% )  
(4) REEL TAPING

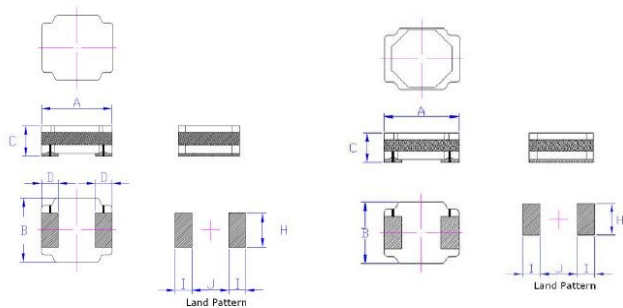


FIG 2

### SHAPE & DIMENSIONS

SIZE CODE	A mm	B mm	C mm	D mm	H	I	J	FIG
BSF2010BNRM	2.0±0.2	1.6±0.2	1.05max	0.6±0.2	1.10	1.00	0.90	1
BSF2512BNRM	2.5±0.2	2.1±0.2	1.25max	0.85±0.20	1.40	0.95	0.9	1
BSF6030BNRM	6.0±0.2	6.0±0.2	3.0±0.2	-	5.70	1.80	2.40	2

ⓂAll the data listed in this catalogue are for reference only, King Core reserves the right to alter or revise the specifications without prior notification.

## SPECIFICATION OF FBCA SERIES

### FEATURES

Use flat wire in it and could endure higher current (6Amps).  
It is mounted in the boards with surface mounting equipment.



### APPLICATIONS

1. Computer products.  
(Mother board , Hard Disk , TV card..Etc.)
2. Communication products.  
(like : PAGER , Cordless Phone..Etc.)
3. Modem , OA products , power supplier..Etc.
4. Countermeasures for complying with CE ·  
FCC · VDE or VCCI radiated emissions.

### ORDERING CODE

**FBCA - A78 - 302540 - L - T**  
(1) (2) (3) (4) (5)

- (1) PRODUCT TYPE CODE  
(2) MATERIAL CODE  
(3) SIZE CODE  
(4) DESIGN CODE  
(5) TAPING

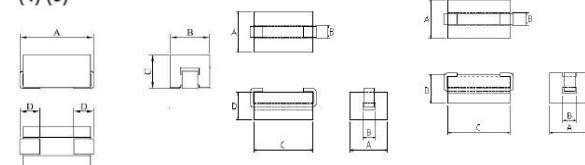


FIG 1

FIG 2

FIG 3

### SHAPE & DIMENSIONS

ORDERING CODE	A	B	C	D	RDC (mΩ)max	IMPEDANCE		IDC (mA)max	FIG
						25MHz	100MHz		
FBCA-K58-302340-L1-T	4.5±0.4	3.0±0.2	2.3+0(-0.4)	1.5±0.5	4	28	45	9000	1
FBCA-A78-302540-L-T	3.0±0.2	1.45±0.10	4.00±0.25	2.55±0.15	6	29	45	6000	2
FBCA-K58-302540-L-T	3.0±0.2	1.45±0.10	4.00±0.25	2.55±0.15	4	30	45	10000	2
FBCA-K58-302540-L1-T	4.5±0.4	3.0±0.2	2.60±0.25	1.50±0.15	4	30	50	9000	1
FBCA-A78-302585-L-T	3.0±0.2	1.45±0.10	8.50±0.30	2.55±0.15	9	54	85	6000	2
FBCA-78-302585-L1-T	3.00±0.30	1.50±0.50	8.50±0.40	2.50±0.30	9	58	100	13000	3
FBCA-A78-473078-L-T	4.75±0.20	1.45±0.10	7.80±0.30	3.00±0.15	9	69	97	6000	2

ⓂAll the data listed in this catalogue are for reference only, King Core reserves the right to alter or revise the specifications without prior notification.

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