



EPCI Overview

& Six Month Operation Review Report

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INTRODUCTION

The European Passive Component Institute (EPCI) was founded in July 2015 with target to build bridge between European passive component manufacturers, testhouses and universities and the end users of passive components. The aim is to support awareness about the European passive component industry and give some room for growth to small enterprises' new ideas. There is also a number of passive component projects at European universities and testhouses' special capabilities that are not widely known but it may worth its attention.

VISION, TARGETS & MISSION

The electronic and component industry has been going through a fast dramatic change period since 90th of last century driven by the growth of information society on one side and the growth of consumer application segment power with its typical requirements for flexibility and cost down pressure.

Issue of today's information society is that we are surrounded by a wide range of information with diverse quality and precision levels. Thus, more time and resources have to be paid to validate the source and truth of information obtained, then to get the specific information itself. Misleading information however, can cause significant delay in reaction, complaints and eventually high related cost to fix the false conclusions/actions. The experienced HW engineers, for example, are more and more cautious about the manufacturer's presentation that can be misleading in some statements to drive their attention to the manufacturer's product portfolio rather than supporting the engineers with the best solution to his/her issues. The independent sources of validated and objectively presented information are growing its importance to save time and cost of the design-in process. **EPCI target in this field is to become a valuable, easy to work with, independent technical information resource on passive components.**

The long tradition of components manufacturing in Europe (and USA) is usually from the beginning of its invention by pioneers and the "later pioneers" that moved the initial thoughts into a high volume manufacturing technologies and products. The whole industry had to co-operate many times in both horizontal and vertical directions to fix some of the "technology challenges". This process has brought an enormous level of experience that worth to keep and share with younger generation. **The aim of EPCI here is to provide an easy accessible overview of European passive components industry capabilities.** (Including manufacturers, testhouses, distributors and universities with continuous passive components research programs).

The EPCI mission is to become a source of validated independent technical information on passive components and incentive for European passive component industry experience growth.

The EPCI target is to create and present easy to use tools supporting passive components industry such as the e-PassiveBook (with open access passive handbook, application guidelines, simulation and modelling topics ...) or e-Symposium (custom compiled symposium)– useful and attractive for EEE component engineers, quality & reliability engineers, HW designers, strategic buyers etc.

EPCI TEAM

The EPCI has been founded by its president, **Dipl. Ing. Tomas Zednicek, Ph.D.**, based in Lanskroun, Czech Republic, that has more than 21 years of experience in capacitor industry in a position of the worldwide technical marketing manager at a global leading passive component manufacturer. He has a wide experience with intercultural communication and special applications such as space, medical, automotive etc.

Two external co-operators **Mrs. Dominique Vignolo** located in France and **Dipl. Ing. Reiner W. Kuehl** from Germany have expressed their strong support to the EPCI vision, mission and targets by offering their active assistance to EPCI, especially in their home regions and precise resistors fields. The both external co-operators are long-term recognised industry experts with a deep level of knowledge and respect in their fields.

More info about the team CV can be found at the EPCI website / about / people.

KEY PROJECTS

The EPCI has introduced 3 key projects in the first 6month of its operation:

- **European passive component industry database**
- **e-PassiveBook – the online passive components handbook**
- **e-Symposium. – the online technical article database**

[European Passive Components Industry Database](#)

Databases of European manufacturers, testhouses, distributors and universities with continuous research programs on passive components have been established on the EPCI website. The first database inputs of more than 120 companies have been entered based on the public sources. This information are presented without guarantee. The companies will be contacted in the next phase with offer to register and thus present verified information.

the database benefits for / why register:

- End-customers searching for a specific passive components that could not be found easily on the market or using a quick web search.
- End-customers looking for specifically EU sourced parts for various reasons:
 - high rel or unique parts typically with low volume, but high degree of add value/know-how/design flexibility
 - parts for a government initiated project with guaranteed geographic return requirements
 - new parts / obsolescent parts / automotive parts upgrade option etc for ESA European Space Agency programs (EU origin mandatory for ESA qualified parts)
- Identification of potential partners in other EU countries for joint EC funded projects such as Horizon 2020
- Government, agencies, or other institution representatives searching for a local passive component manufacturing, testing and evaluation capabilities (testhouses) and/or research

projects (universities) for strategic institutional support programs, statistics, international industry co-operation support offers etc.

- Review supplier capability overview for end customers / integrators offering industry offset as incentive for local government tenders
- Contact database to create a communication link between manufacturers and university's research programs for application oriented research, student practice, educational programs, selected students recruitments etc

Current status:

The European passive component industry databases of manufacturers, testhouses, distributors and universities have been established on the EPCI web page. Registration is open using an online registration forms or contact email. More than 120 entities records available to date.

Next steps:

The next phase is to make step by step contacts with the database entities to offer registration and verification of the presented overview and this continuously expand the database records.

[e-PassiveBook](#)

EPCI has established an online Passive Components Handbook: e-PassiveBook. The e-PassiveBook aims to become the favourite independent up-to date online handbook on passive components structure, technologies, behaviour, characteristics, applications guidelines, simulation & modelling etc.

e-PassiveBook benefits:

Independent source of passive component technical information for the industry specialists, component & reliability engineers, circuit designers, graduate students and all wide public with interest in the passive components industry.

Current status:

EPCI obtained rights to use an industry famous P-O.Fagerholt's CLR Passive Components Handbook from CTI Inc. (USA) as the core information source for the online e-PassiveBook. The handbook has to be transformed and re-edited to fit into the web format in order to offer the complete search function, structure, formatting and quality of pictures. However, this process is time and resources consuming. The first sub-chapter of the P-O.Handbook has been already digitalised and it is available on the EPCI website to illustrate the form, structure and content of the e-PassiveBook. EPCI is currently looking for sponsors that would financially support creation of the e-PassiveBook. The sponsor's logo will be shown in a sidebar of the e-PassiveBook as an acknowledgement.

Next steps:

The e-PassiveBook is intended to be created in four following phases:

- Phase one: **transformation** of complete P-O Fagerholt's CLR handbook into the website (upon sponsorship)
- Phase two: content review and **update** it in order to reflect the latest stage of the industry and technology.
- Phase three: **expansion** of information by other passive components, application guidelines, simulation&modelling etc.
- Phase four: **keep updated**

e-Symposium

e-Symposium is an intended electronic form of a Passive Components Technology Symposium with a collection of technical articles about passive components that can be searched for a dedicated topic or items of interest. All articles are reviewed by EPCI before it is add to the paper database and articles with sales pitch or at a low quality level are rejected. This is not the place for sales type press releases but for a technical papers/presentations with more details on technical benefits / processes/ issues / innovations / new approaches / materials or applications. The custom selected articles will be provided in a form of conventional style conference/symposium proceedings in electronic or hard prints upon the users order. Company annual registration for an unlimited access to their employees will be considered.

Why e-Symposium

The aim is to support mainly regular technical engineering staff to get access to needed information about passive components in situations such as:

- It is difficult to justify expenses on technical conference (travel, accommodation, entrance fee).
- Passive components present only a partial interest of the job duties and it is out of efficiency to attend a full day conference.
- The existing live symposium is in a conflict with other events
- Industry specialist with a feeling of wasted time & money at a full conference hearing all papers out of interest.
- Preference to study a technical paper in a comfortable time and environment

Current status

e-Symposium outlines have been defined and announced on the EPCI web page including the call for papers by an online registration form. A leading passive component manufacturers and universities have been contacted with a request to provide rights to use their available technical papers for the e-Symposium database.

Next steps

- completion of the e-Symposium operating software
- building and expansion of the e-Symposium database of technical articles

OTHER PROJECTS & SERVICES

There are more functions and services implemented or under preparation side of the main projects above.

Company's Flash News

available

It is a commercial advertisement platform where a passive component industry entities can promote their technical advantages and hot/best product benefits.

The form is a short Q&A for two questions:

Q1: What is the technical advantage or innovation/service of the company that everyone should know about ?

Q2: What is the latest or hot product/service that worth everyone's attention?
There are next projects under planning upon the completion of the current phase.

Industry Interviews

coming soon

The intention is to prepare a monthly based short Q&A interview with passive component industry fellows about their view about the technology, trends, direction, news etc. The questioned people will be from wide range of applications and supply chain – manufacturers, distributors, end-users, agencies etc.

Status: under preparation, first interview release about late spring time

Industry News & Passive Components Dossier

available/under preparation

Collection of daily worldwide news about passive components is available under News section. The registered company's website are add to the list to monitor their press release and news to make sure their product news are always included in the news update. The news are categorised per component type, application and focus of the article.

An annual year based collection of commented news will processed into a passive component dossier document that will be possible to purchase via the EPCI web site. The first 2016 dossier will be issued during Q4 2016.

Event Calendar

available

An event calendar showing Passive Component Industry relevant conferences, fairs, etc. is shown on the main page with link to detail information.

Job Fair

upon interest

a passive component industry related job advertisement post can be published upon interest.

Custom Passive Component Seminars

upon interest

A seminar on passive components lectured by industry experts can be prepared based on custom client requirements.

Status: open offer, seminars already lectured for clients. (mostly on capacitor technology)

Custom Passive Component Technology Consultancy

upon interest

Upon request, a consultancy about passive component technologies and trends can be offered. Please note, EPCI is a technology and new technology focus company. It is not a market consulting company, thus price, leadtime, value market trends etc. is not the scope of our expertise.

Source Control Inspection

upon interest

Upon request, a source inhouse/external control inspection on passive components can be organised by EPCI.

Museum

intended

Another intended activity of EPCI after implementation of the main projects is to present history of passive components by collection and structured database of stories, product pictures, historical documentation, manufacturing equipment, catalogues etc. The first inputs will be based on HaS

company's passive component museum that is already physically existing in the Czech Republic. The components will be photographed and add to the database with description.

Communities

[intended / upon interest](#)

The EPCI website open up a space for a regional national community log in zone. The community zone can be operated in a native country language with exchange of local information, regional meetings, notes, information about the local policies & specifications. The communities will be managed and administrated by a regional EPCI co-ordinator. The first community region may be created for the Czech Republic where national passive component industry meetings are already organised as a small workshop. All community members have to declare and accept the anti-trust rules prior registration.

PARTNERSHIP & CO-OPERATION

ESA

EPCI has a close co-operation with ESA European Space Agency on passive component projects. EPCI has been introduced during the ESCCON component conference in March 2016 at ESTEC, Netherlands. EPCI has been invited to serve the programme committee for the next 2nd SPCD Space Passive Components Days that will be held at ESTEC in October 2016. EPCI will be also lecturing capacitor technology seminar for ESA and SPCD attendees during the SPCD.

EPCIA

The EPCI has been introduced to EPCIA European Passive Components Industry Association Operating Committee in March 2016.

IMAPS

EPCI is in partnership with IMAPS Czech & Slovak chapter with a common goals to interact with students and universities for educational purposes and applied research.

TECHNICAL UNIVERSITY of BRNO, Czech Republic

EPCI lectured two seminars on capacitor overview for electro-technology Ph.D. students at Technical University of Brno, Czech Republic in 2015/2016.

SPONSORSHIP, ADVERTISEMENT & HOW TO SUPPORT

EPCI welcomes partners and appreciate all the financial support from the sponsors – the companies that share the values, policy and attitude to support the passive component industry.

How to support

Companies / Institutions

- Registration to the EPCI passive components industry database with suggested small annual registration fee for large/ global companies and distributors (only applies for European passive industry or global companies with at least one site located in a European country)
- Share/submit your passive component technical papers to e-Symposium database
- Share interesting stories, history, opinions about passive components
- Sponsorship of ePassiveBook – the free online passive component handbook

- Register at e-Symposium as a company users (under preparation)
- Sponsorship of the EPCI – bronze, silver, gold sponsorship

Individuals

- Review and recommend EPCI website to colleagues, friends, partners, customers as a valuable independent source of information (if you like it)
- Follow EPCI on LinkedIn and share/likes with your contacts
- Send us your comments / suggestions for improvements / notes

Registration

The European Passive Components industry – manufacturers, distributors, testhouses and universities with continuous research programs are encouraged to register and provide validated information in the EPCI database to their own benefits. Some annual one year registration fee is suggested for large/global companies and distributors.

Suggested One Year Registration Fee:

| | Manufacturers, Testhouses, Universitites | Distributors |
|------------------|--|--------------|
| SME*, University | not set fee | 270,- EUR |
| Large Company* | 180,- EUR | 450,- EUR |
| Global Company* | 540,- EUR | 540,- EUR |

*note: SME is an enterprise with less than 250 employees, with year turnover less than 50M EUR or yearly bal. sum value is less than 43M EUR. Global company is a company with sites on three or more continents.

Advertisement - Company's Flash News

Placement of an advertisement is offered in the form of Company's Flash News located in the EPCI main page and side bar. The form of advertisement is a Q&A PR by answering of two promotion questions about the technical advantage of the company and the new/hot product (see the chapter Other Projects of this document). The answers can include also a link to further detailed information and the company's web site.

price

The Flash News Advertisement placed for a fixed period of 3mnth900,- EUR.
Bronze, Silver and Gold sponsors (see below).....free of charge

Job Offer Advertisement - please contact EPCI

Sponsorship

There are three pre-set sponsorship levels and special acknowledgements-benefits are rewarded for the leading supporters:

Golden Sponsor: support exceeding 9.000,- EUR

- benefits: - Company Flash News presentation free of charge for 12 month period
- Company logo placement at the main EPCI website for 12 month period
- 12month Free access to the e-Symposium database (under preparation)
- EPCI Press Release acknowledgement
- Acknowledgement at public EPCI presentations, conferences and symposiums etc.

Silver Sponsor: support exceeding 5.400,- EUR

- benefits:
- Company Flash News presentation free of charge for 9 month period
 - Company logo placement at the main EPCI website for 9 month period
 - 9 month Free access to the e-Symposium database (under preparation)
 - EPCI Press Release acknowledgement
 - Acknowledgement at public EPCI presentations, conferences and symposiums etc.

Bronze Sponsor: support exceeding 1.800,- EUR

- benefits:
- Company Flash News presentation free of charge for 3 month period
 - Company logo placement at the main EPCI website for 3 month period
 - 12month Free access to the e-Symposium database (under preparation)
 - EPCI Press Release acknowledgement
 - Acknowledgement at public EPCI presentations, conferences and symposiums etc.

There are currently there are two sponsorship options:

- 1) EPCI sponsor – sponsoring of the EPCI projects & activities
- 2) e-PassiveBook project sponsors – sponsoring creation of the open access online passive component handbook.

The sponsorship levels applies to both options. The e-PassiveBook sponsor's logo will be acknowledged at the main side bar of the e-PassiveBook.

WEBSITE VISITOR PROFILE

Please see below the website attendance and visitor profile statistics for the first 6month (10/15 – 03/16) of EPCI website operation.

Website attendance statistics:



During the first 6 month of EPCI website operation there are typically more than 400 new website visitors monthly based with 30% regular return rate. The number of visitors is currently growing in about 25% each month.

In addition, LinkedIn EPCI site articles are typically seen by 300 to 600 people (typical net reach people rate is about 400).

The EPCI website visitor profile:

The estimated visitor entity share within the first 6 month of operation is approximately 7% government/agency, 35% end customers, 45% passive component industry, 10% universities and 3% others.



Source: LinkedIn statistics, Google analytics

FINANCIAL OVERVIEW

The EPCI aim is to become an independent self-financed organisation. The main focus is to introduce open, easy to access technically oriented tools supporting passive components industry. The income is based on some fee based services, suggested registration fee, sponsorship and flash news advertisement.

Engineering community are more and more annoyed with advertisement banners, thus as a friendly EPCI website there are no header / footer / side advertisements banners are allowed. The advertisement opportunity is to present a company in a Q&A hot corner flash introduction of the company's technical benefits and hot products.

Financial Result

The first half year of operation ended with a net loss of 20 532,- EUR.

Financial Outlook

Financial result /net loss/ of the first six month of EPCI operation is in accordance with expectations. There was a high initial cost for the office set up, web administration and website construction with limited income from sponsorship and registration fees. The financial situation is expected to improve during the 2nd half of the financial year based on the built infrastructure, new industry connections and result of promotion. The increased presence in European passive components events, conferences, users visits, filling the databases etc. is expected to increase income from registration fees and sponsorship. New fee based services – e-Symposium and Passive Component news dossier will be introduced that should improve the balance sheet at the end of 2nd half year. However, the high initial infrastructure cost and limited income may still influence the second half year financial results. The goal for the 2nd half year is to end up with balanced financial result around zero profit or with a small loss. The first profit from EPCI operation is expected during 2017.

www.passive-components.eu