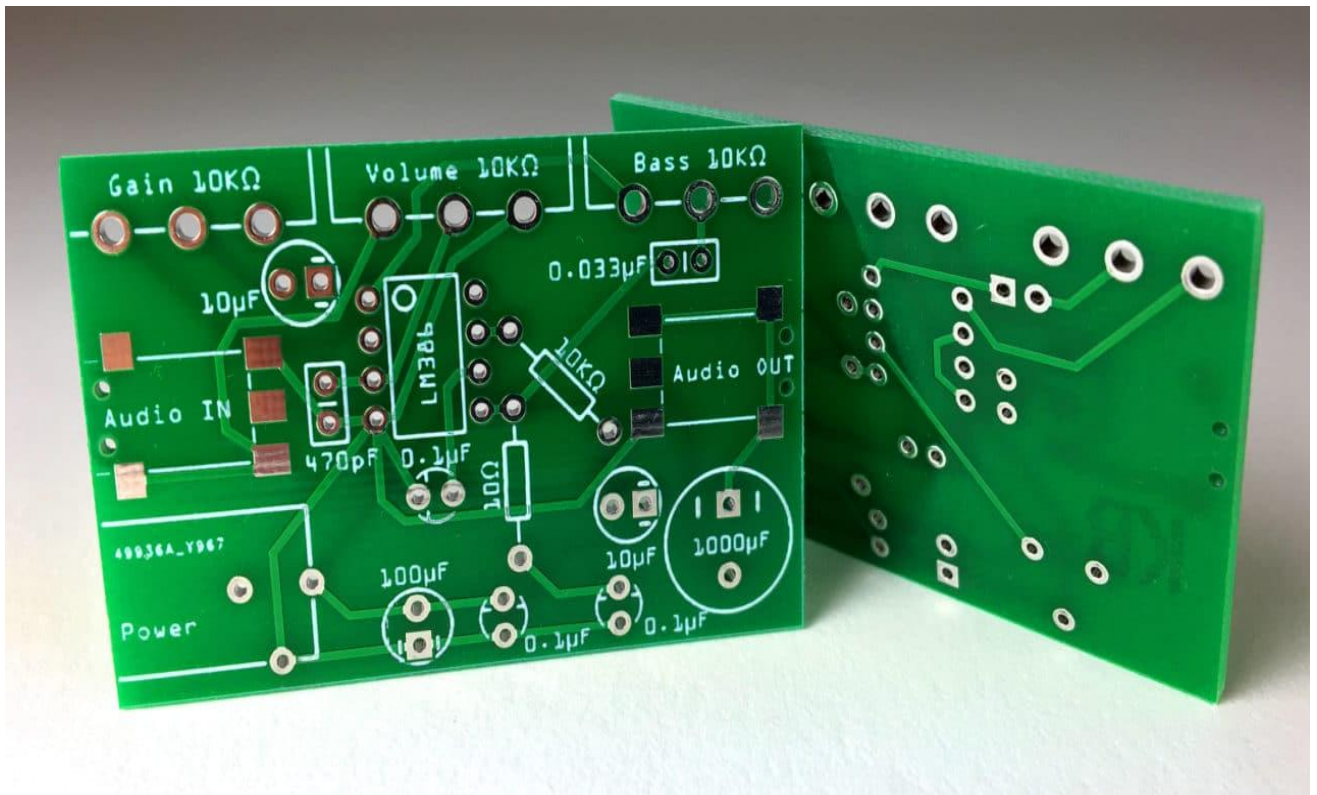


# OPPORTUNITIES FOR SRI LANKAN PRODUCED ELECTRONIC PRINTED CIRCUITS IN USA



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## **CONTENTS**

<b>1. INTRODUCTION</b>	<b>Page 02</b>
<b>2. MARKET TRENDS AND DEMAND</b>	<b>02</b>
<b>3. LOCAL PRODUCERS AND SUPPLIERS IN THE US</b>	<b>03</b>
<b>4. PRINTED CIRCUITS IMPORT DATA TO USA</b>	<b>04</b>
<b>5. COUNTRY REQUIREMENTS FOR IMPORTS</b>	<b>04</b>
<b>6. POSITION OF SRI LANKAN GOODS IN THE MARKET</b>	<b>04</b>
<b>7. CONCLUSION</b>	<b>05</b>

# OPPORTUNITIES FOR SRI LANKAN PRODUCED ELECTRONIC PRINTED CIRCUITS IN USA - HS 8534

## 01 INTRODUCTION

The market for electronic printed circuit boards is a market that is highly competitive in the US. It has seen an immense amount of growth in recent years and the market trends indicate that it will continue to grow. This report will touch on various topics regarding the market situation in 2017, the position of Sri Lankan Printed Circuit Boards (PCBs), the activities of the competition and a final analysis and recommendation.

## 02. MARKET TRENDS AND DEMAND

According to P R News Wire, the global printed circuit board market is expected to reach an estimated \$72.6 billion by 2022 and is forecast to grow at a CAGR of 3.2% from 2017 to 2022. The major drivers of growth for this market are the strong demand for smart phones and tablets along with growing automation in industries, such as automotive and aerospace & defense.

Emerging trends, which have a direct impact on the dynamics of the industry, include the miniaturization of printed circuit boards and development of green PCBs (Printed Circuit Boards).

Asia Pacific is expected to remain the largest and fastest growing region due to the increasing production of electronic components and devices in this region.

There are many different types of PCB in market are categorized by the following;

- Printed circuit board market by substrate type
  - ✓ Rigid 1-2 sided
  - ✓ Standard multilayers
  - ✓ HDI/Microvia/Build-up
  - ✓ IC substrate
  - ✓ Flexible circuits
  - ✓ Rigid-flex
  
- PCB laminate market by type
  - ✓ Paper
  - ✓ FR-4
  - ✓ CEM
  - ✓ Polyimide

➤ PCB laminate market by raw material type:

- ✓ Glass Fabric
- ✓ Epoxy Resin
- ✓ Kraft Paper
- ✓ Phenolic Resin

### 03. LOCAL PRODUCERS AND SUPPLIERS IN THE US

There are many local producers and suppliers in the USA, listed below are some of them;

- ✓ Sanmina Corporation
- ✓ Jabil Circuit
- ✓ Xilinx
- ✓ Flextronics International USA
- ✓ Electronic Assembly Corporation
- ✓ Mercury Systems
- ✓ TTM Technologies
- ✓ Benchmark Electronics
- ✓ Jabil Circuit
- ✓ IEC Electronics Corp.
- ✓ Sypris Solutions
- ✓ Flextronics America
- ✓ Plexus Corp.
- ✓ M C Test Service
- ✓ Express Manufacturing
- ✓ American Technical Ceramics Corp
- ✓ Sigmatron International
- ✓ Magna Electronics
- ✓ Park Electrochemical Corp.
- ✓ Creation Technologies Wisconsin
- ✓ Diamond Multimedia Systems
- ✓ Viasystems Technologies Corp
- ✓ Mid-South Industries
- ✓ Hadco Corporation
- ✓ Kimball Electronics
- ✓ SMTC Manufacturing Corporation of California
- ✓ Flextronics Holding USA
- ✓ Logic Pd
- ✓ Viasystems

## 04. PRINTED CIRCUITS IMPORT TO USA

### HS8534 (value in US \$ '000)

	2014	2015	2016
<b>World</b>	2,046,227	2,121,088	2,148,642
<b>China</b>	1,298,984	1,347,009	1,325,157
<b>Japan</b>	167,638	182,282	215,951
<b>Korea, Republic of</b>	86,945	85,321	100,127
<b>Canada</b>	107,996	102,758	99,289
<b>Sri Lanka</b>	113	159	217

Source: Trade map

## 05. COUNTRY REQUIREMENTS FOR IMPORTS

According to US CBP (Customs and Border Control)

“For the purposes of heading 8534 "printed circuits" are circuits obtained by forming on an insulating base, by any printing process (for example, embossing, plating-up, etching) or by the "film circuit" technique, conductor elements, contacts or other printed components (for example, inductances, resistors, capacitors) alone or interconnected according to a pre-established pattern, other than elements which can produce, rectify, modulate or amplify an electrical signal (for example, semiconductor elements). The term "printed circuits" does not cover circuits combined with elements other than those obtained during the printing process, nor does it cover individual, discrete resistors, capacitors or inductances. Printed circuits may, however, be fitted with non-printed connecting elements.”

### 5.1 IMPORT TARIFFS

Under HS 8534 the import tariff for 'column one countries' is free

## 06. POSITION OF SRI LANKAN GOODS IN THE MARKET

As mentioned above, the demand for Sri Lankan produced PCB is fluctuating. We can also see that the other top countries are suffering a similar fate and the total imports from around the world are in decline. One possible explanation for this is the fact that in recent years more local producers of PCB are starting up in the US and as a result the market is probably shifting their demand to locally produced PCBs.

## 06. CONCLUSION

After looking at the whole market and several factors, it is my conclusion that there are a few options for Sri Lankan produced PCBs to be competitive in the US market.

One possible method is to use competitive prices to help distinguish Sri Lankan PCBs from other countries'. Depending on Sri Lankan produced individual finances and profit margins they would have to determine which countries' product they would be trying to be competitive against specifically.

Another would be to use marketing as a differentiator. By developing better PCBs and advertising as such, firms could see higher demand for their products. If this proves challenging, the producers could use brand imaging and packaging strategies to help boost sales.

The last suggestion would be to partner with local producers of PCB's in the US. By advertising lower labor costs along with (possible) lower production costs, these firms could outsource the production to Sri Lankan firms and as such could help increase exports into the US.

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