

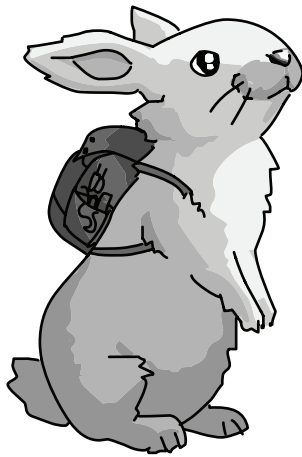
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# Introduction

深圳

(shēn · zhèn)



# Introduction

Hello! This book is designed to help non-Mandarin speakers navigate the sprawling electronics markets of Shenzhen. The markets are locally referred to as the Hua Qiang Bei (HQB) markets, after the road that runs through the heart of the market.

The concept behind this book is to provide a “point-to-translate” interaction that is structured according to a typical transaction in the market:

1. Specifying components
2. Specifying quantity and packaging
3. Payment and delivery
4. Remembering the vendor’s location

The book also includes sections on what to expect, basic survival, and getting around. It does **not** cover topics such as eating, drinking, local attractions, places to stay, or making friends with the locals, as most basic travel guides for the area already provide adequate coverage of these topics.

## Why Point to Translate instead of Phonetic?

The standard phonetic system for transcribing Mandarin is pinyin. However, pronouncing pinyin is very tricky. Consider the phrase, “I’m eating a goose.” The pinyin transcription is “wǒ chī é”, but the pronunciation is closer to “whua chee uh” - and that doesn’t even consider the complication of tonality. Thus, a verbal phrase-book style translation is not effective without at least a few hours of pinyin pronunciation training.

Fortunately, written Chinese is standardized, even across

China's hundreds of regional dialects. Therefore, pointing at written translations is effective at communicating with anyone in China, even to people who speak a dialect other than Mandarin.

## Using the Guide

The book is designed around enabling fast real-time interaction with locals. Translations are organized by component type or scenario, and the spiral binding allows the book to be easily left open to that page, so both parties can view the bilingual phrases with ease. The binding also allows the book to accommodate the extra thickness of business cards, which may be placed in the included pouches for quick access. The pouches are interleaved among several copies of a market map, allowing business cards (which are primarily printed in Chinese) to be easily matched with map annotations. This simplifies the problem of remembering a vendor's location for repeat business.

It's generally recommended to bring printed specification drawings to the market, especially when sourcing switches, connectors, and other components with complex or arbitrary dimensions. While the vendors cannot speak English, most can read enough English characters to interpret a mechanical drawing. Each plastic business card holder sheet also has a larger pouch meant for storing folded up specification drawings.

The tabs along the edge enable fast navigation between sections, and the elastic band on the back functions as a bookmark for quick access. All the pages can be torn out for easy sharing with friends and suppliers.

Finally, this book never runs out of batteries, and is compatible with the most popular API in the market - printed name card, receipts, and drawings. It loads instantly

no matter where you are - the Great Firewall of China can't filter it. You actually *own* your copy of this book - unlike software, it's not licensed to you via a click-through EULA that robs you of all your fair use rights. It also can't be infected with malware, has no pop-up ads, and will never upload confidential notes about pricing, sources, and vendors to the cloud. Your data is your data!

## About Technical Chinese

As my friend Gavin Zhao once quipped, Chinese is a wonderful language for poetry, but difficult for precise technical communications. Fans of Randall Munroe's XKCD may have seen the "Up-Goer Five" blueprint comic (<http://xkcd.com/1133/>), where complex technical concepts are explained using only the "ten hundred" most common English words. Considering that 98% of Chinese is covered with only 2,500 characters, and there are only 7,000 "general use" characters, most technical terms in Chinese have to be decomposed into idioms that are reminiscent of the Up-Goer Five scenario.

For example, a resistor is 电阻, which means "electric obstructor", capacitor is 电容, which means "electric container", and a computer is 电脑, which means "electric brain". On the other hand, some concepts have names which are simply phonetic loan words with no meaning, such as the Schottky diode: 肖特基二极管. The first three characters are "xiào tè jī" (sounds like "shao tuh gee"), which sound somewhat like "Schottky" but the characters mean "resembles particular basis/foundation"; clearly phonetic but no meaning. The last three characters mean "two-pole tube", which does make some sense. And then there are the pronunciation subtleties, such as 芯片号, "xīn piàn hào" (which means an "IC's part number" (literally "core flat item's number"), which with misplaced accents sounds like 性偏好, "xìng piān hào" which means "sexual

# Point-to-Translate Guide: Components

Components



# Resistors - 电阻器

Note: SMT case sizes are on page 31.

## SPECS 详情

tolerance 容差 róng chà	wattage 功率 gōng lǜ	composition 成分 chéng fèn	tempco 温度系数 wēn dù xì shù	cheapest 最便宜的 zuì pián yí de
0.1%	0.05W	thick film 厚膜 hòu mó	1ppm	finest 最好的 zuì hào de
0.5%	0.1W	carbon film 炭膜 tàn mó	5ppm	general use 通用的 tōng yòng de
1%	0.16W	metal film 金属箔 jīn shǔ bó	10ppm	what's in stock 有现货的 yǒu xiàn huò de
5%	0.25W	ceramic 陶瓷 táo cí	25ppm	anything is OK 什么都可以 shèn me dōu kě yǐ
10%	0.5W	wirewound 绕线 rào xiàn	50ppm	
20%	1W	surface mount 贴片式 tiē piàn shì	100ppm	
随便 (any)	2W	bussed 总线式 zǒng xiàn shì	500ppm	
	5W	isolated 隔离 gé lí	1000ppm	
through-hole 插件式 chā jiàn shì	resistor network 电阻器网络, 阵列 diàn zǔ qì wǎng lüè, zhèn liè	convex 凸面 tū miàn	随便 (any)	
		concave 凹面 āo miàn		

## MOUNTING 封装

## OTHER 其他

1.0	1.2	1.5
1.8	2.2	2.7
3.3	3.9	4.7
5.6	6.8	8.2

Table of E12 (10%) standard values.

This is provided for engineering reference. When specifying values, write them down. Vendors will understand the prefixes “ $\mu$ ”, “n”, and “p”.

farad  
法拉  
fǎlā

milli  
毫  
háo

$\mu$  (micro)  
微  
wēi

n (nano)  
纳[诺]  
nà [nuò]

p (pico)  
皮[可]  
pí [kě]



# Capacitors - 电容器

Note: SMT case sizes are on page 31.

## SPECS 详情

tolerance  
容差  
róng chà

- 0.1pF
- 0.25pF
- 0.5pF
- 1pF
- 1%
- 5%
- 10%
- 20%

voltage  
电压-额定  
diàn yā - è dìng

- 2.5V
- 4V
- 6.3V
- 10V
- 16V
- 25V
- 50V
- 高压(HV)

dielectric  
介电材料  
jiè diàn cái liào

- ceramic  
陶瓷  
táo cí
- tantalum  
钽  
tǎn
- aluminum  
铝  
lǚ

thin film  
薄膜  
bó mó

mica  
云母  
yún mǔ

tempco  
温度系数  
wēn dù xì shù

- C0G, NP0
- X5R
- X7R
- X7S
- Y5V
- Z5U

## other terms

temp range  
工作温度  
gōng zuò wēn dù

low ESR  
低等效串联电阻  
(低ESR)

low ESL  
低ESL  
注解: 倒置结构

what brand?  
什么品牌?  
shén me pǐn pái

genuine  
原装正品  
yuán zhuāng zhèng pǐn

critical spec  
关键描述  
guān jiàn miáo shù

## MOUNTING 封装

through-hole  
插件式  
chā jiàn shì

surface mount  
贴片式  
tiē piàn shì

radial  
径向  
jīng xiàng

axial  
轴向  
zhóu xiàng

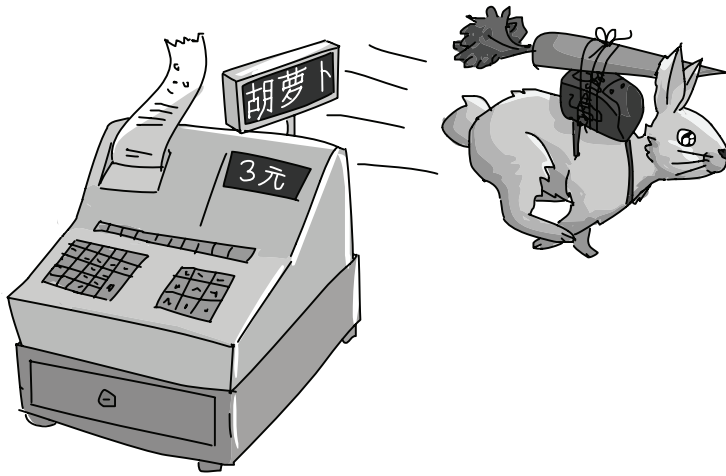
disc  
圆盘  
yuán pán

dipped  
保形涂层  
bǎo xíng tú céng

molded  
模制  
mó zhì

## STYLE 类型

# Point-to-Translate Guide: Sealing the Deal



Sealing the Deal

# This sample is almost right, but I need something different. 这个样品基本上是我想要的，但是我还有一些不同的要求。

**Do you have something like this but...**  
你有类似这个的产品吗，但是.....

smaller?  
更小一点?  
gèng xiǎo yí diǎn?

bigger?  
更大一点?  
gèng dà yí diǎn?

thinner?  
更薄一点?  
gèng báo yí diǎn?

taller?  
更高一点?  
gèng gāo yí diǎn?

longer?  
更长一点?  
gèng zhǎng yí diǎn?

shorter?  
更短一点?  
gèng duǎn yí diǎn?

heavier?  
更重的?  
gèng zhòng de?

lighter?  
更轻的?  
gèng qīng de?

thicker?  
更厚一点?  
gèng hòu yí diǎn?

faster?  
更快的?  
gèng kuài de?

slower?  
更慢的?  
gèng màn de?

stronger?  
更强的?  
gèng qiáng de?

with surface mount feet?  
表面贴片?  
biǎo miàn tiē piàn?

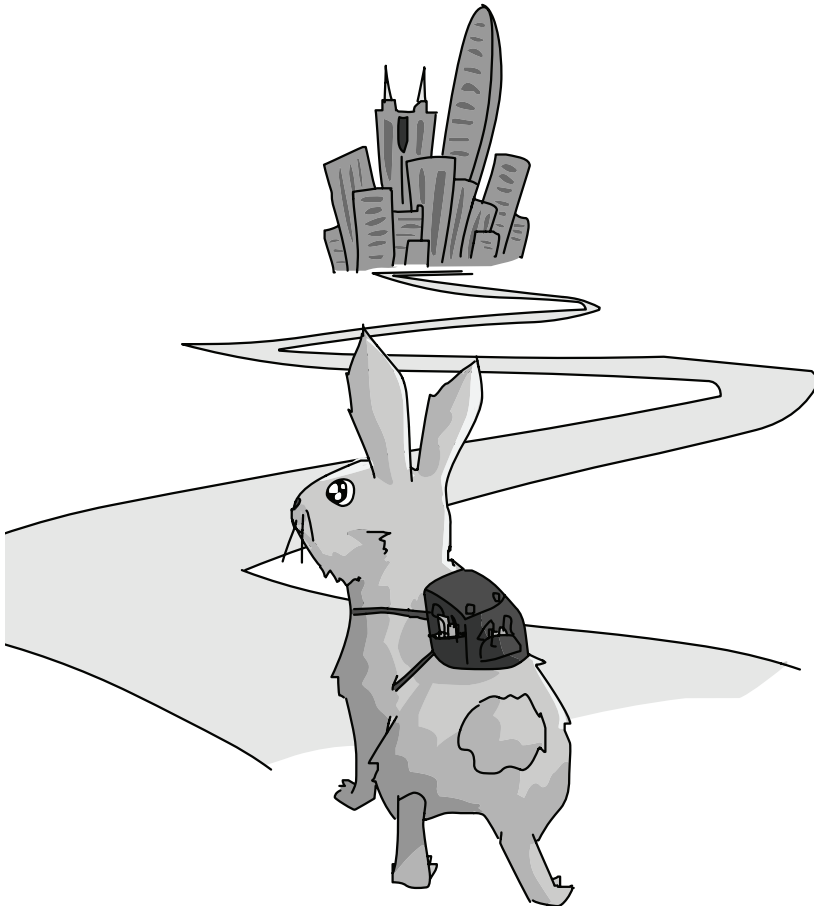
with through hole pins?  
带通孔插脚?  
dài tōng kǒng chā jiǎo?

with alignment pins?  
带定位销的?  
dài dìng wèi xiāo de?

with surface mount signal wires, but through hole mounting feet?  
带有表面贴片信号线，但是是直插件?  
dài yǒu biǎo miàn tiē piàn xìn hào xiàn, dàn shì shí zhí chā jiàn?

in machine-assembly (reel/tube/tray) packaging?  
用于机器组装的包装方式 (如卷状/管状/托盘包装)?  
yòng yú jī qì zǔ zhuāng de bāo zhuāng fāng shì (rú juǎn zhuàng / guǎn zhuàng / tuō pán bāo zhuāng)?

# Getting To Shenzhen, and Back Again



There & Back

## Visas

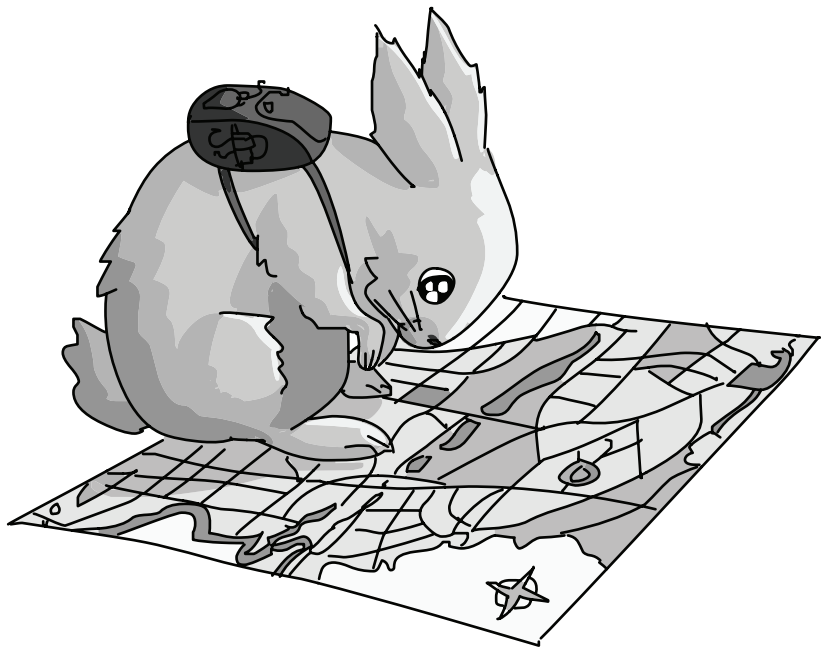
Many nationalities need a visa to enter China, including Americans. Don't rely on getting a visa on arrival – I've heard reports of people having to wait days in Hong Kong while their visas are processed. However, the rules are constantly in flux, so check the Internet and mind the date on the article. If the advice is more than a year or two old, question its validity.

The most recent and very significant development for Americans is the availability of 10-year multiple-entry visas to visit China. It's recommended to apply for a 10-year visa even if the intention is to visit just once; it costs almost the same as the shorter-term visas and it's unclear if and when the 10-year visa option will be terminated.

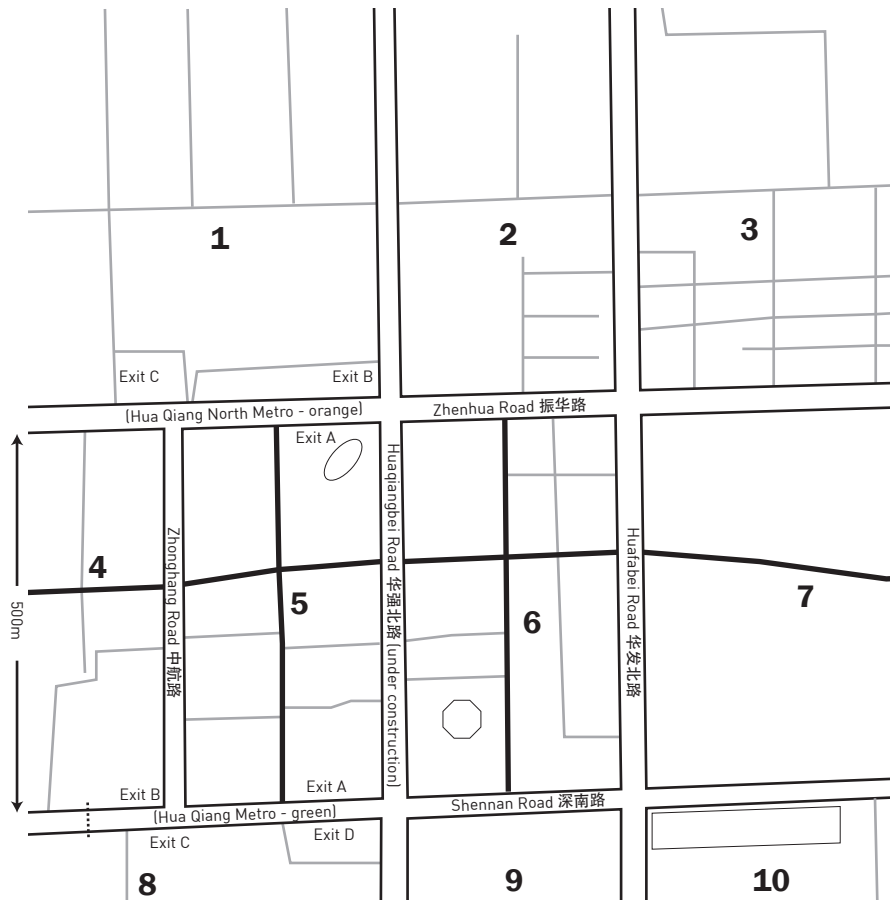
It's also recommended to apply through a visa processing agent instead of directly to the Chinese consulate. Most agents seem to have a special relationship with the consulate that often allow the normally strict requirements for showing itineraries, tickets, and hotel reservations to be bent. The convenience is well worth their nominal markup on the visa cost.

The other important thing to note is that even though the primary purpose for going to China may be to visit markets and factories for "business reasons", that's still technically a "tourist" activity. So apply for a tourist visa, as it's a much easier process than a business visa. A business visa is needed to operate or incorporate a new company in China. Simply inspecting, buying and exporting goods or subcontracting an existing Chinese factory is classified as a tourist type of activity.

# Maps



# Maps of the Hua Qiang District



This section is divided into two parts. The first part is a brief field guide to the market. This guide divides the market into 10 blocks, and touches on the highlights of each block. The second part consists of multiple blank copies of the map. Behind each map is a plastic insert for holding business cards, receipts, datasheets and technical drawings.

Returning to a vendor's stall can be a formidable challenge, given the dearth of English signage. Use the point-to-translate phrases printed on each copy of the map to acquire a business card, and to ask the vendor to mark their stall on the map. This will help you find them again, should you need to buy more products in the future. Once in the correct building, the stalls are numbered using roman numerals and characters; be sure to jot down the stall number if it's not already printed on the business card.

The pages can be torn out for easy sharing with friends and suppliers.