|  |  |  |  |
| --- | --- | --- | --- |
| 1 | 00:00:00,160 --> 00:00:02,280 | 对于在RISC-V这个阵营里头 |  |
| 2 | 00:00:03,084 --> 00:00:05,356 | 我们看到这个趋势还在持续的增长之中 |  |
| 3 | 00:00:08,118 --> 00:00:11,040 | 任何一个技术上跟产业如果有很好的结合 |  |
| 4 | 00:00:11,137 --> 00:00:13,100 | 对它的发展是比较有利的 |  |
| 5 | 00:00:13,600 --> 00:00:15,240 | 我们可以看到整个物联网 |  |
| 6 | 00:00:15,240 --> 00:00:16,318 | 它的碎片化 |  |
| 7 | 00:00:16,318 --> 00:00:17,259 | 以及它的多样化 |  |
| 8 | 00:00:17,537 --> 00:00:18,740 | 这块的需求 |  |
| 9 | 00:00:18,780 --> 00:00:20,320 | 跟RISC-V这样一个指令 |  |
| 10 | 00:00:20,321 --> 00:00:21,693 | 以及它整个产业的特点 |  |
| 11 | 00:00:21,693 --> 00:00:22,871 | 是比较吻合的 |  |
| 12 | 00:00:23,420 --> 00:00:24,500 | 像物联网 半导体 |  |
| 13 | 00:00:24,501 --> 00:00:25,860 | 我们预计在2027年 |  |
| 14 | 00:00:25,900 --> 00:00:27,280 | 也就大概在几年以后 |  |
| 15 | 00:00:27,420 --> 00:00:30,280 | 总体可以做到一千多亿美元的市场份额 |  |
| 16 | 00:00:30,320 --> 00:00:32,120 | 在18年就已经到三百六十六亿了 |  |
| 17 | 00:00:32,240 --> 00:00:34,200 | 所以整个复合增长率在百分之二十不到 |  |
| 18 | 00:00:34,437 --> 00:00:35,520 | 百分之十六点几 |  |
| 19 | 00:00:35,865 --> 00:00:37,700 | 所以他对于碎片化 差异化 |  |
| 20 | 00:00:37,701 --> 00:00:39,700 | 同时但是对功耗和成本这块 |  |
| 21 | 00:00:39,880 --> 00:00:42,340 | 也有着极其严格要求的情况下 |  |
| 22 | 00:00:42,340 --> 00:00:44,060 | 对于可修改的RISC-V |  |
| 23 | 00:00:44,100 --> 00:00:46,300 | 以及说可以扩展的RISC-V |  |
| 24 | 00:00:46,775 --> 00:00:49,035 | 是有很大的一个促进的 |  |
| 25 | 00:00:49,335 --> 00:00:50,415 | 实际上大家可以知道RISC-V |  |
| 26 | 00:00:50,455 --> 00:00:51,955 | 基本指令实际上就这么多 |  |
| 27 | 00:00:52,131 --> 00:00:55,315 | 它关键是有很多可以拓展的定制和差异 |  |
| 28 | 00:00:55,653 --> 00:00:56,595 | 并且是开源 |  |
| 29 | 00:00:56,655 --> 00:00:57,756 | 大家可以在一个阵营里面 |  |
| 30 | 00:00:57,756 --> 00:00:59,960 | 去互相的支撑和进展 |  |
| 31 | 00:01:00,340 --> 00:01:02,000 | 所以虽然有些技术上我们是 |  |
| 32 | 00:01:02,040 --> 00:01:03,600 | 可以在RISC-V的基础上 |  |
| 33 | 00:01:03,820 --> 00:01:04,820 | 可以实现一些扩展 |  |
| 34 | 00:01:04,821 --> 00:01:05,887 | 针对像互联网 |  |
| 35 | 00:01:05,887 --> 00:01:08,060 | 或者说工业控制应用里面的一些需求 |  |
| 36 | 00:01:08,340 --> 00:01:09,560 | 我们待会有一些汇报 |  |
| 37 | 00:01:10,740 --> 00:01:11,553 | 所以我们也看到 |  |
| 38 | 00:01:11,553 --> 00:01:12,900 | 除了刚才说的物联网这一块 |  |
| 39 | 00:01:12,901 --> 00:01:14,860 | 也对人工智能异构架构预算 |  |
| 40 | 00:01:15,020 --> 00:01:15,912 | 因为我们看到是 |  |
| 41 | 00:01:15,912 --> 00:01:18,510 | 随着整个处理器技术的不断迭代 |  |
| 42 | 00:01:18,511 --> 00:01:20,136 | 以及对应用处理器这块的 |  |
| 43 | 00:01:20,136 --> 00:01:21,110 | 一些升级之后 |  |
| 44 | 00:01:21,170 --> 00:01:23,810 | 我们已经从传统的把所有应用和计算 |  |
| 45 | 00:01:23,850 --> 00:01:26,210 | 包括控制集中在CPU一端上 |  |
| 46 | 00:01:26,470 --> 00:01:27,630 | 已经逐步的拓展出来 |  |
| 47 | 00:01:27,631 --> 00:01:28,793 | 我们称之为叫DPU |  |
| 48 | 00:01:28,793 --> 00:01:30,230 | 也叫数字处理单元 |  |
| 49 | 00:01:30,330 --> 00:01:32,430 | 包括GPU也好 AI也好 包括vivo |  |
| 50 | 00:01:32,960 --> 00:01:34,500 | 甚至说我们讲的是一些图形 |  |
| 51 | 00:01:34,501 --> 00:01:35,643 | 图像处理技术上 |  |
| 52 | 00:01:35,643 --> 00:01:37,587 | 都可以作为整个芯片 |  |
| 53 | 00:01:37,587 --> 00:01:40,520 | 和整个电子处理设备上的一些数据 |  |
| 54 | 00:01:40,521 --> 00:01:42,012 | 有的关键节点的一些技术 |  |
| 55 | 00:01:42,012 --> 00:01:43,300 | 都可以跟RISC-V |  |
| 56 | 00:01:43,560 --> 00:01:44,320 | 做一些整合 |  |
| 57 | 00:01:44,412 --> 00:01:46,321 | 这样RISC-V开放架构 |  |
| 58 | 00:01:46,381 --> 00:01:47,555 | 对人工智能 |  |
| 59 | 00:01:47,555 --> 00:01:49,168 | 像异步集成这块的需求上 |  |
| 60 | 00:01:49,168 --> 00:01:50,595 | 也能契合起来 |  |
| 61 | 00:01:51,455 --> 00:01:52,855 | 所以我们看到像碎片化 |  |
| 62 | 00:01:52,856 --> 00:01:53,815 | 多样化这种需求 |  |
| 63 | 00:01:53,816 --> 00:01:55,495 | 实际上都是在整个产业方里面 |  |
| 64 | 00:01:55,775 --> 00:01:57,155 | 我们所需要解决的一些问题 |  |
| 65 | 00:01:57,215 --> 00:01:59,615 | 由于在iot这个时代 |  |
| 66 | 00:02:00,790 --> 00:02:03,500 | 那商业模式我想这也是很重要的一点 |  |
| 67 | 00:02:03,670 --> 00:02:06,350 | 就是一个技术如果没有好的商业模式推广 |  |
| 68 | 00:02:06,710 --> 00:02:09,090 | 那可能它的进展会比较的困难 |  |
| 69 | 00:02:09,150 --> 00:02:10,950 | 但是我看RISC-V这块 |  |
| 70 | 00:02:10,951 --> 00:02:11,970 | 它的一些新的模式 |  |
| 71 | 00:02:11,971 --> 00:02:14,770 | 比如说指令集是开源的 |  |
| 72 | 00:02:14,890 --> 00:02:15,890 | 另外商业模式下 |  |
| 73 | 00:02:15,930 --> 00:02:17,810 | 以前传统的模式是说我去找供应商 |  |
| 74 | 00:02:17,811 --> 00:02:19,790 | 然后去拿起它的授权 |  |
| 75 | 00:02:19,821 --> 00:02:21,190 | 才能做相应的开发 |  |
| 76 | 00:02:21,410 --> 00:02:23,368 | 但是RISC-V在core资源上 |  |
| 77 | 00:02:23,368 --> 00:02:24,850 | 是有极大的自由度的 |  |
| 78 | 00:02:26,603 --> 00:02:28,862 | 如果说看我国国内 |  |
| 79 | 00:02:28,862 --> 00:02:30,267 | 中国自己的CPU里面 |  |
| 80 | 00:02:30,430 --> 00:02:31,690 | 我们简单做一个汇总 |  |
| 81 | 00:02:32,150 --> 00:02:33,270 | 大家可以看到 |  |
| 82 | 00:02:34,221 --> 00:02:36,670 | 像X86的ARM |  |
| 83 | 00:02:36,671 --> 00:02:39,270 | 其他一些不需要授权的alphaGo也好 |  |
| 84 | 00:02:39,271 --> 00:02:41,045 | 或者说其他的core好 |  |
| 85 | 00:02:41,046 --> 00:02:43,445 | 做出来的CPU在国内有自己品牌的 |  |
| 86 | 00:02:44,105 --> 00:02:45,085 | 有很多 |  |
| 87 | 00:02:45,705 --> 00:02:48,125 | 但是我们可以看到 |  |
| 88 | 00:02:48,165 --> 00:02:49,705 | 整个CPU的一个发展历程 |  |
| 89 | 00:02:49,706 --> 00:02:51,665 | 我们需要一个国家自主可控 |  |
| 90 | 00:02:52,010 --> 00:02:52,818 | 但是我们可以看到 |  |
| 91 | 00:02:52,818 --> 00:02:54,130 | 针对X86的 |  |
| 92 | 00:02:54,170 --> 00:02:56,134 | 或者说IP授权 |  |
| 93 | 00:02:56,134 --> 00:02:56,990 | 架构授权 |  |
| 94 | 00:02:57,190 --> 00:02:59,570 | 甚至说基于一些开源的一些M-core也好 |  |
| 95 | 00:02:59,728 --> 00:03:02,153 | 做了一些不同的分析来看 |  |
| 96 | 00:03:02,153 --> 00:03:05,230 | 在自主 可控 繁荣和以及创新上 |  |
| 97 | 00:03:05,685 --> 00:03:07,134 | 只有RISC-V可以实现 |  |
| 98 | 00:03:07,134 --> 00:03:09,505 | 整个这四点的一个完美的支撑 |  |
| 99 | 00:03:11,420 --> 00:03:12,965 | 所以国内现在整个RISC-V 产业 |  |
| 100 | 00:03:12,965 --> 00:03:14,060 | 我们做一些汇总 |  |
| 101 | 00:03:14,120 --> 00:03:15,993 | 包括全球的 |  |
| 102 | 00:03:15,993 --> 00:03:17,360 | 国际上的 |  |
| 103 | 00:03:17,420 --> 00:03:19,340 | 我们可以看到整个公司列表里面 |  |
| 104 | 00:03:19,700 --> 00:03:21,380 | 这些全球顶尖的这些 |  |
| 105 | 00:03:21,660 --> 00:03:23,181 | 芯片设计企业商都有在 |  |
| 106 | 00:03:23,181 --> 00:03:25,040 | 积极的往RISC-V这块去推进 |  |
| 107 | 00:03:25,300 --> 00:03:29,490 | 尤其是异步架构的计算 |  |
| 108 | 00:03:29,900 --> 00:03:31,180 | 物联网这一块的应用 |  |
| 109 | 00:03:31,181 --> 00:03:32,920 | 会推广的更为更为迅速 |  |
| 110 | 00:03:33,740 --> 00:03:35,000 | 所以国内做的也不错 |  |
| 111 | 00:03:35,080 --> 00:03:37,020 | 像这里如果知可能比较小 |  |
| 112 | 00:03:37,420 --> 00:03:39,500 | 像芯片和IP以及软件这三块 |  |
| 113 | 00:03:39,500 --> 00:03:40,560 | 我们看到有很多进展 |  |
| 114 | 00:03:40,720 --> 00:03:42,080 | 在芯片领域 |  |
| 115 | 00:03:42,140 --> 00:03:43,637 | 从最早中国蓝讯用它 |  |
| 116 | 00:03:43,637 --> 00:03:45,003 | 来做一些蓝牙的 |  |
| 117 | 00:03:45,003 --> 00:03:47,090 | 一些低端的一些芯片之后 |  |
| 118 | 00:03:47,170 --> 00:03:49,631 | 现在逐步的向AloT的 |  |
| 119 | 00:03:49,631 --> 00:03:51,371 | 一些新兴设备的企业上嘉楠 |  |
| 120 | 00:03:51,425 --> 00:03:52,775 | 包括时擎 |  |
| 121 | 00:03:52,775 --> 00:03:55,250 | 都有在采用他们做一些AloT的芯片 |  |
| 122 | 00:03:55,490 --> 00:03:56,771 | 然后一些新的企业 |  |
| 123 | 00:03:56,771 --> 00:03:58,828 | 比如像汇顶 展锐 |  |
| 124 | 00:03:58,828 --> 00:04:01,450 | 甚至之前的海思和晶晨翱捷也好 |  |
| 125 | 00:04:01,725 --> 00:04:02,562 | 包括君正 |  |
| 126 | 00:04:02,563 --> 00:04:06,126 | 都陆续有推出他们基于RISC-V的一些AloT的芯片 |  |
| 127 | 00:04:06,126 --> 00:04:08,345 | 所以整个龙头到新兴企业 |  |
| 128 | 00:04:08,346 --> 00:04:10,471 | 到一些在Aiot领域里面 |  |
| 129 | 00:04:10,471 --> 00:04:12,565 | 做的比较好的这些公司 |  |
| 130 | 00:04:12,566 --> 00:04:14,585 | 都有在这块逐步的推出他们 |  |
| 131 | 00:04:14,765 --> 00:04:18,425 | 全面铺开他们一些物联网的这种RISC-V的芯片IP |  |
| 132 | 00:04:18,426 --> 00:04:21,665 | 这块芯来对标ARM这种一系列处理器搭配结合 |  |
| 133 | 00:04:22,005 --> 00:04:23,145 | 我想这个增长也很快 |  |
| 134 | 00:04:23,146 --> 00:04:26,537 | 像昨天好像是他们有一个专场在这里 |  |
| 135 | 00:04:26,537 --> 00:04:27,580 | 成立三周年 |  |
| 136 | 00:04:27,581 --> 00:04:31,960 | 我们也有幸的参与了芯来的一些成长 |  |
| 137 | 00:04:31,961 --> 00:04:34,420 | 我们非常高兴看到他们这三年之中 |  |
| 138 | 00:04:34,460 --> 00:04:36,500 | 从客户基础到他们整个技术的演进 |  |
| 139 | 00:04:36,820 --> 00:04:37,820 | 是非常迅速的 |  |
| 140 | 00:04:38,631 --> 00:04:41,175 | 软件这一块 整个产业这块有很多公司 |  |
| 141 | 00:04:41,176 --> 00:04:42,475 | 包括编译器 操作系统 |  |
| 142 | 00:04:42,535 --> 00:04:45,035 | 甚至一些开源社区的软件都有做代码 |  |
| 143 | 00:04:45,036 --> 00:04:46,675 | 都有在往这块就倾斜 |  |
| 144 | 00:04:47,955 --> 00:04:49,531 | 接下来我想讲一下 |  |
| 145 | 00:04:49,531 --> 00:04:50,775 | 整个我们对RISC-V |  |
| 146 | 00:04:50,776 --> 00:04:52,315 | 整个产业的一个大概的总结 |  |
| 147 | 00:04:52,684 --> 00:04:54,305 | 今天我讲一下 |  |
| 148 | 00:04:54,685 --> 00:04:55,446 | 在这样一个情况下 |  |
| 149 | 00:04:55,446 --> 00:04:56,865 | 我们能做些什么事情 |  |
| 150 | 00:04:57,465 --> 00:04:58,605 | 实际上我们先看一下 |  |
| 151 | 00:04:58,606 --> 00:04:59,746 | 整个半导体产业 |  |
| 152 | 00:04:59,746 --> 00:05:02,485 | 与中国的芯片设计行业的增长是非常快的 |  |
| 153 | 00:05:02,525 --> 00:05:04,495 | 我们称之为叫黄金十年 |  |
| 154 | 00:05:04,835 --> 00:05:06,375 | 从整个设计项目 |  |
| 155 | 00:05:06,435 --> 00:05:08,975 | 我们整个中国自己本土的芯片设计项目 |  |
| 156 | 00:05:09,315 --> 00:05:11,275 | 在整个全球芯片上占比 |  |
| 157 | 00:05:11,375 --> 00:05:13,075 | 就是底下看到红色那一块 |  |
| 158 | 00:05:13,135 --> 00:05:14,415 | 是中国的芯片设计项目 |  |
| 159 | 00:05:14,455 --> 00:05:18,193 | 以及我们整个设计产业的所贡献的 |  |
| 160 | 00:05:18,346 --> 00:05:19,710 | 市场的收入 |  |
| 161 | 00:05:19,711 --> 00:05:21,590 | 在整个中国的半导体的产业里面 |  |
| 162 | 00:05:21,591 --> 00:05:22,665 | 包括我们的设计 |  |
| 163 | 00:05:22,665 --> 00:05:24,470 | 制造和材料这一块 |  |
| 164 | 00:05:24,471 --> 00:05:25,097 | 封测这一块 |  |
| 165 | 00:05:25,097 --> 00:05:27,170 | 红色这块的占比也在提升 |  |
| 166 | 00:05:27,610 --> 00:05:30,090 | 所以说我们中国设计企业在数量上 |  |
| 167 | 00:05:30,150 --> 00:05:30,703 | 项目上 |  |
| 168 | 00:05:30,703 --> 00:05:33,350 | 以及它的整个产业之上的增长 |  |
| 169 | 00:05:33,390 --> 00:05:35,970 | 都是在持续的一个可观的趋势 |  |
| 170 | 00:05:36,450 --> 00:05:37,530 | 所以整个设计产业 |  |
| 171 | 00:05:37,531 --> 00:05:39,970 | 销售规模也在逐步增长 |  |
| 172 | 00:05:39,971 --> 00:05:40,890 | 基本能够实现 |  |
| 173 | 00:05:40,950 --> 00:05:42,490 | 年增长率的百分之二十及以上 |  |
| 174 | 00:05:42,491 --> 00:05:44,110 | 是非常可观的一个数字 |  |
| 175 | 00:05:44,965 --> 00:05:46,025 | 但是这样的情况之下 |  |
| 176 | 00:05:46,085 --> 00:05:48,825 | 咱国家整个在产业基金 |  |
| 177 | 00:05:48,885 --> 00:05:50,785 | 包括整个地方的基金 |  |
| 178 | 00:05:50,786 --> 00:05:52,505 | 以及各个投资机构也好 |  |
| 179 | 00:05:52,506 --> 00:05:55,625 | 包括企业自己本身的整并和融合也好 |  |
| 180 | 00:05:55,809 --> 00:05:58,306 | 我们在实现在整个半导体产业的 |  |
| 181 | 00:05:58,306 --> 00:06:00,785 | 各个环节都就能实现一个突破 |  |
| 182 | 00:06:01,075 --> 00:06:04,010 | 芯原作为我们一个大基金投资企业之一 |  |
| 183 | 00:06:04,011 --> 00:06:05,310 | 我们在去年上市 |  |
| 184 | 00:06:05,311 --> 00:06:07,630 | 我们主要是在设计和IP这一块 |  |
| 185 | 00:06:07,690 --> 00:06:09,678 | 像我们的中芯国际做制造 |  |
| 186 | 00:06:09,890 --> 00:06:13,090 | 常见做封装以及材料的沪硅 安集和中微 |  |
| 187 | 00:06:13,250 --> 00:06:15,310 | 我们在国家政策指导下 |  |
| 188 | 00:06:15,311 --> 00:06:17,025 | 逐步打造了中国一个完整 |  |
| 189 | 00:06:17,025 --> 00:06:21,810 | 和具有竞争力的一个半导体产业规模 |  |
| 190 | 00:06:22,090 --> 00:06:23,365 | 但这里面设计这一块 |  |
| 191 | 00:06:23,365 --> 00:06:24,330 | 实际上我们看到 |  |
| 192 | 00:06:24,735 --> 00:06:26,315 | 尤其是在整个产业过程中 |  |
| 193 | 00:06:26,316 --> 00:06:28,368 | 从产业的一开始 |  |
| 194 | 00:06:28,635 --> 00:06:30,262 | 我们称之为整个半导体产业上 |  |
| 195 | 00:06:30,262 --> 00:06:31,490 | 有三代的一个画面 |  |
| 196 | 00:06:31,937 --> 00:06:34,489 | 从最早的IBM到后来的【】 |  |
| 197 | 00:06:34,615 --> 00:06:35,606 | 就出现了高通 |  |
| 198 | 00:06:35,606 --> 00:06:37,195 | 或者叫博通这样子做设计 |  |
| 199 | 00:06:37,353 --> 00:06:39,250 | 到中芯国际和台积电做生产 |  |
| 200 | 00:06:39,251 --> 00:06:41,316 | 这样一个Fabless的模式 |  |
| 201 | 00:06:41,316 --> 00:06:42,521 | 到后来手机 |  |
| 202 | 00:06:42,521 --> 00:06:44,195 | 尤其是物联网碎片化以后 |  |
| 203 | 00:06:44,455 --> 00:06:45,295 | 设计难度加大 |  |
| 204 | 00:06:45,355 --> 00:06:47,995 | 设计成本投入急剧增长的情况下 |  |
| 205 | 00:06:47,996 --> 00:06:49,895 | 都在5nm 7nm之下之后 |  |
| 206 | 00:06:50,059 --> 00:06:53,155 | 对整个行业又进一步的细化分工 |  |
| 207 | 00:06:53,525 --> 00:06:54,725 | 所以这时候我们常常可以看到 |  |
| 208 | 00:06:54,726 --> 00:06:55,940 | 像轻涉及 |  |
| 209 | 00:06:55,940 --> 00:06:57,985 | 芯片设计主要做出【】的主要设计 |  |
| 210 | 00:06:58,085 --> 00:06:59,725 | 它把一部分东西可以挪出来 |  |
| 211 | 00:06:59,921 --> 00:07:01,825 | 尤其像IP和设计服务这块 |  |
| 212 | 00:07:01,826 --> 00:07:03,645 | 就是我们芯原主要关注的事情 |  |
| 213 | 00:07:03,865 --> 00:07:05,705 | 所以今天我主要讲这两部分 |  |
| 214 | 00:07:05,706 --> 00:07:07,485 | 我们怎么跟RISC-V做一些结合 |  |
| 215 | 00:07:08,350 --> 00:07:08,910 | 简单汇报一下 |  |
| 216 | 00:07:08,911 --> 00:07:12,170 | 我们在去年8月18号在科创板成功上市 |  |
| 217 | 00:07:12,390 --> 00:07:13,890 | 我们大部分的 |  |
| 218 | 00:07:13,931 --> 00:07:15,590 | 研发的资源都在国内 |  |
| 219 | 00:07:15,590 --> 00:07:16,351 | 百分之九十五 |  |
| 220 | 00:07:16,410 --> 00:07:17,940 | 但是我们有一半的营收 |  |
| 221 | 00:07:18,312 --> 00:07:19,445 | 是来自于境外 |  |
| 222 | 00:07:19,725 --> 00:07:23,525 | 所以我们也希望能够立足于国内的研发的团队 |  |
| 223 | 00:07:23,565 --> 00:07:26,725 | 结合我们服务全球一流企业的这种经验 |  |
| 224 | 00:07:26,785 --> 00:07:28,037 | 能够把我们一些优秀技术 |  |
| 225 | 00:07:28,037 --> 00:07:32,645 | 能够跟RISC-V生态做些深度的融合 |  |
| 226 | 00:07:33,265 --> 00:07:34,490 | 那我可以简单汇报一下 |  |
| 227 | 00:07:34,490 --> 00:07:35,485 | 这一部分的内容 |  |
| 228 | 00:07:36,025 --> 00:07:38,245 | 首先是IP 我们主要做IP |  |
| 229 | 00:07:38,605 --> 00:07:40,365 | IP的话就传统业务模式 |  |
| 230 | 00:07:40,366 --> 00:07:41,945 | 就只有IP可以授权给客人 |  |
| 231 | 00:07:42,265 --> 00:07:44,765 | 他们可以用于使用它他们芯片里面去 |  |
| 232 | 00:07:45,145 --> 00:07:46,046 | 同时 |  |
| 233 | 00:07:46,150 --> 00:07:49,270 | 我们收取一定的授权费和他的 一个【】 |  |
| 234 | 00:07:49,706 --> 00:07:51,785 | 但IP这块技术怎么跟RISC-V要结合 |  |
| 235 | 00:07:51,890 --> 00:07:53,610 | 尤其是在RISC-V这块的一个增长 |  |
| 236 | 00:07:53,665 --> 00:07:55,345 | 当然整个IP的增长还是很快的 |  |
| 237 | 00:07:55,346 --> 00:07:56,885 | 我们再看全球增长是不错的 |  |
| 238 | 00:07:57,459 --> 00:08:03,615 | 我们在2020的整个全球IP排名里面 |  |
| 239 | 00:08:03,616 --> 00:08:05,031 | 我们在全球排第七 |  |
| 240 | 00:08:05,031 --> 00:08:06,235 | 中国还是第一 |  |
| 241 | 00:08:06,595 --> 00:08:08,895 | 但是我们看到在全球前七名里面 |  |
| 242 | 00:08:09,380 --> 00:08:11,220 | 我们的增长还是相当快的 |  |
| 243 | 00:08:11,280 --> 00:08:14,860 | 这也得支助于整个技术的演进 |  |
| 244 | 00:08:14,861 --> 00:08:16,006 | 以及中国整个半导体市场的 |  |
| 245 | 00:08:16,006 --> 00:08:17,160 | 一个快速增长 |  |
| 246 | 00:08:17,300 --> 00:08:19,015 | 所以我相信在中国的 |  |
| 247 | 00:08:19,015 --> 00:08:22,390 | 这些本土的这些RISC-V的企业 |  |
| 248 | 00:08:22,550 --> 00:08:24,750 | 也应该能够享受到这个黄金时代的红利 |  |
| 249 | 00:08:25,350 --> 00:08:28,390 | 实际上从整个IP的丰富度来看 |  |
| 250 | 00:08:28,391 --> 00:08:30,610 | 我们还是在整个全球前七名里面 |  |
| 251 | 00:08:30,830 --> 00:08:31,850 | 我们是最为丰富的 |  |
| 252 | 00:08:31,890 --> 00:08:33,590 | 尤其在像素处理这一块 |  |
| 253 | 00:08:33,730 --> 00:08:34,778 | 也就是说 |  |
| 254 | 00:08:35,410 --> 00:08:37,256 | 从你的摄像头进 |  |
| 255 | 00:08:37,256 --> 00:08:39,250 | 到显示屏出这个过程中 |  |
| 256 | 00:08:39,251 --> 00:08:40,750 | 所有的大家能看到 |  |
| 257 | 00:08:41,270 --> 00:08:43,230 | 关键的这些处理器模块里面 |  |
| 258 | 00:08:43,310 --> 00:08:45,210 | 我们都有自己的自研技术可以提供 |  |
| 259 | 00:08:45,230 --> 00:08:46,970 | 所以我想讲的内容就是说RISC-V |  |
| 260 | 00:08:46,990 --> 00:08:48,870 | 如果说能够跟这些技术做整合 |  |
| 261 | 00:08:48,871 --> 00:08:50,270 | 做差异化 做定制化 |  |
| 262 | 00:08:50,510 --> 00:08:52,630 | 那就会发现很多他们的异构架构 |  |
| 263 | 00:08:52,830 --> 00:08:54,678 | 计算上这块的一个能力 |  |
| 264 | 00:08:54,678 --> 00:08:55,910 | 会得到更大的一个提升 |  |
| 265 | 00:08:57,115 --> 00:08:57,795 | 所以大家可以看到 |  |
| 266 | 00:08:57,796 --> 00:08:59,415 | 这是我们很丰富的一些IP的序列 |  |
| 267 | 00:08:59,475 --> 00:09:00,755 | 我待会大家讲讲一讲 |  |
| 268 | 00:09:01,015 --> 00:09:03,737 | 所以去年我们大概整个IP的收入增比 |  |
| 269 | 00:09:03,737 --> 00:09:06,295 | 大概将近百分之四十六点几 |  |
| 270 | 00:09:06,515 --> 00:09:10,090 | 整个全年营收大概做到十六亿人民币 |  |
| 271 | 00:09:11,855 --> 00:09:14,595 | 数量和我们的授权次数都有大幅增加 |  |
| 272 | 00:09:15,815 --> 00:09:17,685 | 其中我们有一个关键的IP称之为 |  |
| 273 | 00:09:17,686 --> 00:09:19,265 | 我们的神经处理器叫AI |  |
| 274 | 00:09:19,731 --> 00:09:21,565 | AI处理器我们实际上 |  |
| 275 | 00:09:21,565 --> 00:09:22,925 | 在今天为止 |  |
| 276 | 00:09:23,305 --> 00:09:27,770 | 应该是说在全球的四十家客户里面 |  |
| 277 | 00:09:27,771 --> 00:09:30,250 | 已经有六十多个芯片是基于我们的AI |  |
| 278 | 00:09:30,790 --> 00:09:31,810 | 在商用 |  |
| 279 | 00:09:31,870 --> 00:09:32,770 | 在出货 |  |
| 280 | 00:09:33,170 --> 00:09:35,246 | 从最早我们开始从安防开始 |  |
| 281 | 00:09:35,246 --> 00:09:36,570 | 从一六年到现在 |  |
| 282 | 00:09:36,571 --> 00:09:39,390 | 可以看到这八十几颗芯片都会在 |  |
| 283 | 00:09:39,840 --> 00:09:42,000 | 不同的领域里面得到应用和推广 |  |
| 284 | 00:09:42,040 --> 00:09:42,700 | 但其中 |  |
| 285 | 00:09:42,960 --> 00:09:45,320 | 有一部分我们商业跟RISC-V做一些结合 |  |
| 286 | 00:09:45,340 --> 00:09:46,320 | 尤其在物联网 |  |
| 287 | 00:09:46,480 --> 00:09:48,780 | 甚至包括像安防这一块的一些部分 |  |
| 288 | 00:09:49,340 --> 00:09:51,460 | 所以我们希望接下来的智能家居这块 |  |
| 289 | 00:09:51,461 --> 00:09:55,190 | 也能够逐步跟RISC-V做更深度一些结合 |  |
| 290 | 00:09:56,070 --> 00:09:57,230 | 这次像博康 |  |
| 291 | 00:09:57,231 --> 00:09:58,990 | 恩智浦在我们可以公开的一些客户 |  |
| 292 | 00:09:58,991 --> 00:10:00,270 | 在我们四十几家客户里面 |  |
| 293 | 00:10:00,387 --> 00:10:02,430 | 他们的AI都跟我们有深度的一些整合 |  |
| 294 | 00:10:02,509 --> 00:10:03,490 | 和合作 |  |
| 295 | 00:10:04,446 --> 00:10:05,885 | 当然说做端以外的 |  |
| 296 | 00:10:06,165 --> 00:10:07,365 | 我们在云里面有很大是 |  |
| 297 | 00:10:07,365 --> 00:10:08,645 | 我们可以做单核 |  |
| 298 | 00:10:08,796 --> 00:10:12,705 | 就是一个处理器里面有四个核 |  |
| 299 | 00:10:12,940 --> 00:10:15,145 | 可以做到两百个TOPs这样的一个性能 |  |
| 300 | 00:10:15,225 --> 00:10:17,805 | 这个主要用的像【】或者云计算 |  |
| 301 | 00:10:18,085 --> 00:10:19,845 | 以及智慧驾驶这块的一些处理 |  |
| 302 | 00:10:21,046 --> 00:10:24,415 | video它是另外一个核心技术之一 |  |
| 303 | 00:10:24,796 --> 00:10:27,235 | 我们从10年开始跟谷歌合作 |  |
| 304 | 00:10:27,236 --> 00:10:29,295 | 开始设置到视频的开发 |  |
| 305 | 00:10:29,335 --> 00:10:30,835 | 到今天为止十年之后 |  |
| 306 | 00:10:31,056 --> 00:10:34,111 | 今天三代全球的二十大云服务提供商里面 |  |
| 307 | 00:10:34,111 --> 00:10:36,820 | 有十二家已经采用了我们的视频技术 |  |
| 308 | 00:10:36,881 --> 00:10:40,121 | 尤其是像这种短视频 |  |
| 309 | 00:10:40,121 --> 00:10:41,250 | 像那些互联网公司 |  |
| 310 | 00:10:41,250 --> 00:10:43,280 | 以及提供这种视频云服务企业里面 |  |
| 311 | 00:10:43,680 --> 00:10:45,620 | 从互联网型的五大里面的三大 |  |
| 312 | 00:10:45,660 --> 00:10:46,960 | 也采用我们视频技术 |  |
| 313 | 00:10:47,400 --> 00:10:48,990 | 所以我们想说我们把整个硬件的视频 |  |
| 314 | 00:10:48,990 --> 00:10:51,171 | 就做好之后 |  |
| 315 | 00:10:52,575 --> 00:10:53,221 | 所以我想说 |  |
| 316 | 00:10:53,221 --> 00:10:54,475 | 我们把整个硬件的视频 |  |
| 317 | 00:10:54,675 --> 00:10:55,375 | 做好之后 |  |
| 318 | 00:10:56,718 --> 00:10:58,445 | 穿进了一些声音 |  |
| 319 | 00:10:58,584 --> 00:11:01,545 | 我们把整个技术整合在video这个平台上之后 |  |
| 320 | 00:11:01,546 --> 00:11:02,803 | 通过RISC-V可以做一些 |  |
| 321 | 00:11:02,803 --> 00:11:04,734 | 像一些 former |  |
| 322 | 00:11:04,734 --> 00:11:06,225 | 或者底层【】的整合之后 |  |
| 323 | 00:11:06,245 --> 00:11:09,025 | 甚至把一些视频指令可以给合在一起 |  |
| 324 | 00:11:10,705 --> 00:11:11,945 | 就是我们做的一个项目 |  |
| 325 | 00:11:12,485 --> 00:11:14,965 | 你看左边这个是传统用英特尔CPU |  |
| 326 | 00:11:14,965 --> 00:11:16,965 | 去做了一个视频转码的方案 |  |
| 327 | 00:11:17,285 --> 00:11:18,565 | 但是后来我们定制一个芯片 |  |
| 328 | 00:11:18,566 --> 00:11:20,945 | 就中间这一颗小小的一个卡 |  |
| 329 | 00:11:20,946 --> 00:11:21,931 | 这是MD的卡 |  |
| 330 | 00:11:21,931 --> 00:11:22,965 | 里面绿色那个 对 |  |
| 331 | 00:11:22,966 --> 00:11:23,885 | 就是这个芯片 |  |
| 332 | 00:11:24,720 --> 00:11:26,180 | 实现了六倍的转码能力提高 |  |
| 333 | 00:11:26,181 --> 00:11:27,850 | 但是需要十三分之一的功耗 |  |
| 334 | 00:11:28,631 --> 00:11:30,600 | 所以我们如果不在【】里面 |  |
| 335 | 00:11:30,601 --> 00:11:32,320 | 你可以看到在同样的机柜里头 |  |
| 336 | 00:11:32,740 --> 00:11:34,993 | 就以前差这么多 |  |
| 337 | 00:11:35,520 --> 00:11:37,000 | 插卡的里面插CPU卡 |  |
| 338 | 00:11:37,000 --> 00:11:38,260 | 会插GPU |  |
| 339 | 00:11:38,850 --> 00:11:40,606 | 插那种APJ接卡的插槽 |  |
| 340 | 00:11:40,606 --> 00:11:41,710 | 我们把它转过来 |  |
| 341 | 00:11:41,711 --> 00:11:44,450 | 用这种转码方案来做的话 |  |
| 342 | 00:11:44,531 --> 00:11:45,810 | ASIC方案来做 |  |
| 343 | 00:11:46,230 --> 00:11:48,430 | 同样的机柜我们可以实现性能三十六倍 |  |
| 344 | 00:11:48,970 --> 00:11:51,070 | 但是需要一半的功耗 |  |
| 345 | 00:11:51,130 --> 00:11:52,610 | 所以说这种【】的运营商 |  |
| 346 | 00:11:52,611 --> 00:11:54,330 | 他们只需要几个月电费 |  |
| 347 | 00:11:54,590 --> 00:11:55,484 | 省下的电费 |  |
| 348 | 00:11:55,484 --> 00:11:57,130 | 就可以开一个 14nm的soc了 |  |
| 349 | 00:11:57,670 --> 00:12:00,130 | 所以这个是非常可观的一些进展 |  |
| 350 | 00:12:00,820 --> 00:12:02,500 | 所以实际上我们看到一个技术 |  |
| 351 | 00:12:02,501 --> 00:12:03,409 | 我们可以举个例子 |  |
| 352 | 00:12:03,409 --> 00:12:04,840 | 比如说我们像快手 |  |
| 353 | 00:12:04,841 --> 00:12:06,240 | 抖音这样做云服务厂商 |  |
| 354 | 00:12:06,241 --> 00:12:08,560 | 他可能不需要是芯片 |  |
| 355 | 00:12:08,680 --> 00:12:10,060 | 它可能更多的不会用板卡 |  |
| 356 | 00:12:10,100 --> 00:12:11,340 | 他需要说你给我一套solution |  |
| 357 | 00:12:11,341 --> 00:12:12,280 | 我拿用就可以 |  |
| 358 | 00:12:14,455 --> 00:12:17,355 | 但是像一些能够做芯片厂商 |  |
| 359 | 00:12:17,415 --> 00:12:18,575 | 他可能需要这些IP |  |
| 360 | 00:12:18,655 --> 00:12:20,695 | 或者说有些是提供服务器厂商 |  |
| 361 | 00:12:20,696 --> 00:12:21,615 | 它需要是板卡 |  |
| 362 | 00:12:21,715 --> 00:12:23,875 | 我们都可以用这个技术把整个串在一起 |  |
| 363 | 00:12:25,450 --> 00:12:27,050 | 这是我说明一个IP价值 |  |
| 364 | 00:12:27,185 --> 00:12:28,605 | 所以这样当然除了硬件以外 |  |
| 365 | 00:12:28,606 --> 00:12:29,445 | 还有软件性东西 |  |
| 366 | 00:12:29,446 --> 00:12:31,005 | 比如说iphone PG的这种【】 |  |
| 367 | 00:12:31,005 --> 00:12:33,425 | 到整个开源组织架构里面去 |  |
| 368 | 00:12:33,625 --> 00:12:35,125 | 大家可以从里面去直接下载 |  |
| 369 | 00:12:35,126 --> 00:12:37,845 | 到我们提供这样一些视频的软件解决方案 |  |
| 370 | 00:12:38,025 --> 00:12:39,243 | 就可以在一些市场上 |  |
| 371 | 00:12:39,243 --> 00:12:41,560 | 买到这样不同的硬件的一个平台 |  |
| 372 | 00:12:41,561 --> 00:12:43,280 | 去实现它的一个应用的支撑 |  |
| 373 | 00:12:43,320 --> 00:12:44,980 | 所以这样对于我们整个 |  |
| 374 | 00:12:46,050 --> 00:12:47,850 | 技术这块的一个提供来说 |  |
| 375 | 00:12:47,851 --> 00:12:49,150 | 通过这种开源模式也好 |  |
| 376 | 00:12:49,151 --> 00:12:50,450 | 这种开源社区也好 |  |
| 377 | 00:12:50,730 --> 00:12:53,510 | 我想就结合一下RISC-V这种架构 |  |
| 378 | 00:12:53,690 --> 00:12:55,290 | 我也希望把这个技术能够跟他们能够 |  |
| 379 | 00:12:55,330 --> 00:12:56,430 | 做一些深度的整合 |  |
| 380 | 00:12:57,434 --> 00:12:59,475 | 这个就不用讲 |  |
| 381 | 00:13:00,278 --> 00:13:01,285 | GPU是另外一个 |  |
| 382 | 00:13:01,325 --> 00:13:03,228 | 虽然我们称之为GPU |  |
| 383 | 00:13:03,228 --> 00:13:04,153 | 或者AI GPU |  |
| 384 | 00:13:04,153 --> 00:13:06,485 | GPU我们实际上做了十年了 |  |
| 385 | 00:13:07,371 --> 00:13:09,485 | 在我们整个GPU市场占领的全球排第三 |  |
| 386 | 00:13:09,834 --> 00:13:12,605 | 主要从小的手机到大的智慧驾驶都有 |  |
| 387 | 00:13:12,678 --> 00:13:14,885 | 现在做PC级的显卡 |  |
| 388 | 00:13:14,886 --> 00:13:15,865 | 这个做的比较多 |  |
| 389 | 00:13:18,045 --> 00:13:19,105 | 实际上我们在汽车里面 |  |
| 390 | 00:13:19,106 --> 00:13:20,945 | 全球大概有七千多万辆汽车 |  |
| 391 | 00:13:21,250 --> 00:13:24,375 | 都是用我们的GPU技术做可重构仪表盘 |  |
| 392 | 00:13:24,375 --> 00:13:27,492 | 以及里面的中央智慧屏这个设计 |  |
| 393 | 00:13:27,550 --> 00:13:28,470 | 这个里面实际上 |  |
| 394 | 00:13:28,712 --> 00:13:32,931 | 也是利用了像CPU和GPU技术 |  |
| 395 | 00:13:32,931 --> 00:13:34,610 | 可以重点看了一些市场 |  |
| 396 | 00:13:35,612 --> 00:13:36,550 | 这是我们一个案例 |  |
| 397 | 00:13:36,551 --> 00:13:38,790 | 这个是全球应该是很大的一家 |  |
| 398 | 00:13:39,165 --> 00:13:39,965 | 不好点名 |  |
| 399 | 00:13:39,966 --> 00:13:42,212 | 因为他们只做应用处理器 |  |
| 400 | 00:13:42,293 --> 00:13:45,565 | 6系列 7到8 到现在9系列 |  |
| 401 | 00:13:45,745 --> 00:13:47,665 | 咱们从一个IP到一系列IP |  |
| 402 | 00:13:47,945 --> 00:13:50,125 | 到最后提供整个完整的多媒体平台 |  |
| 403 | 00:13:50,305 --> 00:13:52,445 | 包括他们第一颗基于14nm的【】 |  |
| 404 | 00:13:52,762 --> 00:13:54,425 | 也出自我们之手 |  |
| 405 | 00:13:54,475 --> 00:13:57,145 | 芯原是没有自己品牌的芯片在外面 |  |
| 406 | 00:13:57,146 --> 00:13:59,565 | 但我们主要是做设计 服务和IP授权 |  |
| 407 | 00:13:59,566 --> 00:14:01,165 | 所以我们只做幕后英雄的角色 |  |
| 408 | 00:14:01,645 --> 00:14:02,965 | 但是我们可以看到 |  |
| 409 | 00:14:03,295 --> 00:14:04,855 | 从一个IP技术包括 |  |
| 410 | 00:14:05,195 --> 00:14:07,271 | 到一个整合的一套东西多媒体系统 |  |
| 411 | 00:14:07,271 --> 00:14:08,335 | 到一个IP子系统 |  |
| 412 | 00:14:08,559 --> 00:14:12,315 | 结合到CPU或者说这样一些整合之后 |  |
| 413 | 00:14:12,316 --> 00:14:14,035 | 提供到一站式方案给用户 |  |
| 414 | 00:14:14,275 --> 00:14:16,615 | 可以极大的促进整个合作的深度和广度 |  |
| 415 | 00:14:17,578 --> 00:14:19,612 | DSP是我们另外一个核心处理下【】 |  |
| 416 | 00:14:19,612 --> 00:14:23,390 | 就是我们在16年从LSI Logic收购的部门 |  |
| 417 | 00:14:23,568 --> 00:14:25,130 | 主要当时因为通信这一块 |  |
| 418 | 00:14:25,170 --> 00:14:28,030 | 现在我们主要发展做Lot的一些技术 |  |
| 419 | 00:14:28,031 --> 00:14:31,945 | 比如像BOE或者说NBLT |  |
| 420 | 00:14:31,946 --> 00:14:34,725 | 【】等等这种低功耗的 |  |
| 421 | 00:14:34,785 --> 00:14:36,785 | 它是以物联网连接为基础的一些技术 |  |
| 422 | 00:14:36,786 --> 00:14:38,105 | 甚至把连接技术 |  |
| 423 | 00:14:38,145 --> 00:14:39,745 | 和像素处理这些多媒体技术 |  |
| 424 | 00:14:40,060 --> 00:14:42,500 | 可以作为一站式的一套方案提供 |  |
| 425 | 00:14:43,328 --> 00:14:45,000 | ISP是我们另外一个核心数据 |  |
| 426 | 00:14:45,001 --> 00:14:46,600 | 五大处理器其中之一 |  |
| 427 | 00:14:46,720 --> 00:14:49,400 | 这是在14年开始收购一家团队之后 |  |
| 428 | 00:14:49,560 --> 00:14:51,940 | 最早从安防开始着地 |  |
| 429 | 00:14:52,059 --> 00:14:54,179 | 现在我们逐步向一些智慧家居 |  |
| 430 | 00:14:54,705 --> 00:14:56,445 | 包括像手机这块做一些拓展 |  |
| 431 | 00:14:56,505 --> 00:14:57,985 | 因为ISP技术上我们发现 |  |
| 432 | 00:14:58,165 --> 00:15:00,321 | 最早开始从机器看得准 |  |
| 433 | 00:15:00,321 --> 00:15:01,385 | 到人看的美 |  |
| 434 | 00:15:01,425 --> 00:15:02,845 | 这过程中提出要求也不一样 |  |
| 435 | 00:15:02,885 --> 00:15:05,605 | 所以我们也在不断的在演进之中 |  |
| 436 | 00:15:06,335 --> 00:15:07,455 | 还有很多模拟IP |  |
| 437 | 00:15:07,535 --> 00:15:11,165 | 我们现有一千四百多个基于全球各大【】 |  |
| 438 | 00:15:11,395 --> 00:15:13,955 | 不同工艺节点的这些模拟IP |  |
| 439 | 00:15:14,555 --> 00:15:16,555 | 所以我们需要通过这个模拟IP结合 |  |
| 440 | 00:15:16,615 --> 00:15:18,555 | 我们这些大的处理器IP |  |
| 441 | 00:15:18,556 --> 00:15:22,335 | 以及我们 CPU的一些联盟的一些整合之后 |  |
| 442 | 00:15:22,680 --> 00:15:24,740 | 能够打造一个更完整的一个方案给大家 |  |
| 443 | 00:15:25,175 --> 00:15:27,240 | 刚才我提到说我们在连接这一块 |  |
| 444 | 00:15:27,680 --> 00:15:29,500 | 我们主要在22nm来说 |  |
| 445 | 00:15:29,501 --> 00:15:32,100 | 曾有完整的双模蓝牙 |  |
| 446 | 00:15:32,101 --> 00:15:34,080 | 包括NB-loT项目【】 |  |
| 447 | 00:15:34,570 --> 00:15:36,390 | 包括像【】这些技术 |  |
| 448 | 00:15:36,470 --> 00:15:37,510 | 所以基本上就说 |  |
| 449 | 00:15:37,830 --> 00:15:40,150 | 在这里面实际上我们就跟RISC-V走的比较近 |  |
| 450 | 00:15:40,210 --> 00:15:41,370 | 有很多项目的合作 |  |
| 451 | 00:15:41,390 --> 00:15:43,650 | 就比如说我们把整个【】做完之后 |  |
| 452 | 00:15:43,651 --> 00:15:46,030 | 但是我把整个【】这一块 |  |
| 453 | 00:15:46,031 --> 00:15:50,720 | 甚至把【】这一块都可以弄到RISC-V上去执行 |  |
| 454 | 00:15:51,260 --> 00:15:54,100 | 这实际上就是一个【】的一个物联网连接技术 |  |
| 455 | 00:15:54,101 --> 00:15:55,480 | 这个平台就打造出来了 |  |
| 456 | 00:15:57,878 --> 00:16:00,110 | 我们做一些量产的项目 |  |
| 457 | 00:16:00,170 --> 00:16:01,762 | 这是一个基于蓝牙做的 |  |
| 458 | 00:16:01,762 --> 00:16:04,450 | 一个健康检测的一个方案 |  |
| 459 | 00:16:05,071 --> 00:16:07,070 | 我们实际上有一个赛道 |  |
| 460 | 00:16:07,071 --> 00:16:09,010 | 我们说技术也要走赛道 |  |
| 461 | 00:16:09,011 --> 00:16:10,210 | 尤其是你的技术和产品 |  |
| 462 | 00:16:10,645 --> 00:16:12,345 | 要能够踩上去主干的赛道之后 |  |
| 463 | 00:16:12,346 --> 00:16:14,065 | 才能跟着赛道和产业增长 |  |
| 464 | 00:16:14,445 --> 00:16:15,785 | 你可以大方规模的发展 |  |
| 465 | 00:16:15,786 --> 00:16:17,805 | 所以刚刚为什么强调物联网这一块儿 |  |
| 466 | 00:16:18,265 --> 00:16:19,065 | 因为实际上我们看到 |  |
| 467 | 00:16:19,066 --> 00:16:20,245 | 实际上手机接下来 |  |
| 468 | 00:16:20,485 --> 00:16:23,550 | 逐步会有一个新的一个产道出来【】 |  |
| 469 | 00:16:24,145 --> 00:16:25,485 | 手机是最大量的一个市场 |  |
| 470 | 00:16:25,685 --> 00:16:28,665 | 但是慢慢的我想手机拿出来的次数 |  |
| 471 | 00:16:28,865 --> 00:16:32,025 | 他之后会被三个东西足以去替代掉一些 |  |
| 472 | 00:16:32,205 --> 00:16:32,985 | 比如说我们的耳机 |  |
| 473 | 00:16:32,986 --> 00:16:34,685 | 我想现在用蓝牙耳机越来越多 |  |
| 474 | 00:16:34,745 --> 00:16:36,585 | 还有手表 还有眼镜 |  |
| 475 | 00:16:36,870 --> 00:16:38,730 | 技术里面小的设备 |  |
| 476 | 00:16:38,770 --> 00:16:40,630 | 你RISC-V去做个手机 |  |
| 477 | 00:16:41,475 --> 00:16:42,910 | 去做ARM那块的东西 |  |
| 478 | 00:16:42,911 --> 00:16:44,470 | 尤其是比较难的 |  |
| 479 | 00:16:44,710 --> 00:16:46,009 | 但是做物联网这块技术 |  |
| 480 | 00:16:46,009 --> 00:16:46,650 | 比如说耳机 |  |
| 481 | 00:16:46,651 --> 00:16:48,468 | 像手表 像眼镜这块 |  |
| 482 | 00:16:48,468 --> 00:16:49,670 | 就有很多的空间 |  |
| 483 | 00:16:49,710 --> 00:16:51,110 | 但是这是一个市场 |  |
| 484 | 00:16:51,465 --> 00:16:54,165 | 里面带了三个产品乘以三百个这种概率 |  |
| 485 | 00:16:54,285 --> 00:16:55,605 | 这个是一个很大的一个赛道 |  |
| 486 | 00:16:57,600 --> 00:16:58,920 | 所以我们可以看到整个智慧 |  |
| 487 | 00:16:58,921 --> 00:17:00,040 | 可穿戴里程碑的事件 |  |
| 488 | 00:17:00,041 --> 00:17:01,520 | 这里就不再一一赘述 |  |
| 489 | 00:17:01,600 --> 00:17:02,796 | 但是我们可以看到从眼镜 |  |
| 490 | 00:17:02,796 --> 00:17:04,960 | 包括两条线 |  |
| 491 | 00:17:04,961 --> 00:17:06,620 | 一个是像我们走的手表 |  |
| 492 | 00:17:06,955 --> 00:17:09,035 | 像耳机或者耳机这个 |  |
| 493 | 00:17:09,235 --> 00:17:10,325 | 蓝耳机这个市场增长率 |  |
| 494 | 00:17:10,325 --> 00:17:11,155 | 实际大家可以看到 |  |
| 495 | 00:17:11,156 --> 00:17:12,975 | 是整个物联网 |  |
| 496 | 00:17:12,976 --> 00:17:14,935 | 可穿戴设备里面增长最快的一部分 |  |
| 497 | 00:17:15,195 --> 00:17:16,315 | 尤其是苹果这块的 |  |
| 498 | 00:17:16,455 --> 00:17:18,235 | 它从耳机这块的销售额增长 |  |
| 499 | 00:17:18,415 --> 00:17:19,975 | 百分之四十几是非常厉害的 |  |
| 500 | 00:17:20,335 --> 00:17:21,875 | 我想接下来还有另外一个东西会出现 |  |
| 501 | 00:17:21,915 --> 00:17:22,635 | 逐步的出现 |  |
| 502 | 00:17:23,115 --> 00:17:24,875 | 就是以谷歌与苹果为首的这种 |  |
| 503 | 00:17:24,935 --> 00:17:26,215 | 眼镜的形态出来之后 |  |
| 504 | 00:17:26,255 --> 00:17:28,495 | 这个也是下一个热点 |  |
| 505 | 00:17:29,162 --> 00:17:31,078 | 所以我们再把一些技术的积累 |  |
| 506 | 00:17:31,184 --> 00:17:32,015 | 朝这个领域 |  |
| 507 | 00:17:32,016 --> 00:17:33,995 | 包括从刚刚说一些物联网连接技术也好 |  |
| 508 | 00:17:34,035 --> 00:17:37,215 | 包括一些这种像素处理的这些技术也好 |  |
| 509 | 00:17:37,216 --> 00:17:40,135 | 包括AI 包括DSP包括GPU |  |
| 510 | 00:17:40,136 --> 00:17:41,109 | 包括Video等等 |  |
| 511 | 00:17:41,429 --> 00:17:42,635 | 跟它整合在一起之后 |  |
| 512 | 00:17:42,675 --> 00:17:45,800 | 结合RISC-V这种CPU的这种平台 |  |
| 513 | 00:17:45,840 --> 00:17:48,053 | 就可以打造出一系列这样的一些设备出来 |  |
| 514 | 00:17:49,290 --> 00:17:51,370 | 当然整个全球可穿戴设备增长是很快的 |  |
| 515 | 00:17:51,930 --> 00:17:53,290 | 百分之四十几的复合增长率 |  |
| 516 | 00:17:53,291 --> 00:17:56,650 | 作为消费者来说这是非常诱人的 |  |
| 517 | 00:17:56,696 --> 00:17:58,010 | 一个趋势 |  |
| 518 | 00:17:58,687 --> 00:18:00,140 | 中国增长也比较很快 |  |
| 519 | 00:18:00,180 --> 00:18:01,360 | 不到百分之四十 |  |
| 520 | 00:18:01,361 --> 00:18:03,446 | 百分之二十还是几 |  |
| 521 | 00:18:03,825 --> 00:18:04,620 | 它整个量大 |  |
| 522 | 00:18:04,700 --> 00:18:06,280 | 所以整个机会非常好 |  |
| 523 | 00:18:07,437 --> 00:18:08,500 | 我们看眼镜 |  |
| 524 | 00:18:08,640 --> 00:18:09,740 | 除了现在我们大家可能 |  |
| 525 | 00:18:09,741 --> 00:18:11,809 | 普遍都看到手表也好 |  |
| 526 | 00:18:12,160 --> 00:18:13,890 | 包括这个耳机也好 |  |
| 527 | 00:18:13,891 --> 00:18:14,540 | 像眼镜 |  |
| 528 | 00:18:14,600 --> 00:18:16,520 | 应该是下来这样的一个主要的一个增长 |  |
| 529 | 00:18:16,560 --> 00:18:18,487 | 但它对于功耗这块的要求 |  |
| 530 | 00:18:18,487 --> 00:18:21,430 | 也是你把眼睛里面的【】要剪掉 |  |
| 531 | 00:18:21,670 --> 00:18:24,430 | 你不能拿根线连到下面去 |  |
| 532 | 00:18:24,431 --> 00:18:26,450 | 这种不行 不合适的 |  |
| 533 | 00:18:26,696 --> 00:18:29,330 | 他对设计里面的低功耗的技术要求很难 |  |
| 534 | 00:18:29,800 --> 00:18:31,320 | 所以我们也在做这样一些事情 |  |
| 535 | 00:18:32,015 --> 00:18:34,818 | 我们现在正看到像GLASS |  |
| 536 | 00:18:34,818 --> 00:18:36,340 | 这块的一个消费级别这块增长 |  |
| 537 | 00:18:36,341 --> 00:18:39,200 | 从之前在工业领域先到社会端 |  |
| 538 | 00:18:39,201 --> 00:18:40,180 | 这个趋势 |  |
| 539 | 00:18:40,525 --> 00:18:42,985 | 应该会在接下来几年会逐步显现出来 |  |
| 540 | 00:18:44,170 --> 00:18:46,690 | 所以国际巨头 像谷歌 微软 |  |
| 541 | 00:18:46,770 --> 00:18:47,871 | 包括像苹果 |  |
| 542 | 00:18:48,100 --> 00:18:49,610 | 都有在做这样的一些事情 |  |
| 543 | 00:18:51,320 --> 00:18:53,980 | 所以可穿戴这块是全球的 |  |
| 544 | 00:18:54,300 --> 00:18:56,280 | 我们可以看到在这个供应商里面 |  |
| 545 | 00:18:56,580 --> 00:19:00,220 | 中国的小米 华为上都是在名列其中 |  |
| 546 | 00:19:00,596 --> 00:19:02,980 | 尤其是手机厂商现在开始逐步 |  |
| 547 | 00:19:03,100 --> 00:19:05,060 | 不管是手机设备厂商也好 |  |
| 548 | 00:19:05,280 --> 00:19:07,230 | 还是手机芯片提供商也好 |  |
| 549 | 00:19:07,231 --> 00:19:10,120 | 都有在很关注在可穿戴设备这块 |  |
| 550 | 00:19:10,380 --> 00:19:11,300 | 要做这些布局 |  |
| 551 | 00:19:11,301 --> 00:19:11,860 | 就刚刚说了 |  |
| 552 | 00:19:11,861 --> 00:19:13,340 | 一个手机的一个使用次数上 |  |
| 553 | 00:19:13,340 --> 00:19:15,140 | 会逐步的被眼镜 |  |
| 554 | 00:19:15,180 --> 00:19:16,431 | 手表 还有耳机 |  |
| 555 | 00:19:16,431 --> 00:19:17,320 | 所替代掉 |  |
| 556 | 00:19:17,731 --> 00:19:19,260 | 但手机还是会存在 |  |
| 557 | 00:19:19,300 --> 00:19:20,760 | 但你掏出来次数会少了 |  |
| 558 | 00:19:20,820 --> 00:19:21,880 | 因为你有这些设备了 |  |
| 559 | 00:19:22,446 --> 00:19:26,180 | 从这些物联网技术 |  |
| 560 | 00:19:26,181 --> 00:19:27,640 | 这种AloT的设备上 |  |
| 561 | 00:19:27,720 --> 00:19:29,320 | 尤其是采购这种主赛道里面 |  |
| 562 | 00:19:29,321 --> 00:19:31,346 | 增长里面这些趋势 |  |
| 563 | 00:19:31,346 --> 00:19:33,280 | 对于RISC-V来说 |  |
| 564 | 00:19:33,612 --> 00:19:34,478 | 都是一些机会 |  |
| 565 | 00:19:34,478 --> 00:19:36,040 | 都是很好的一些主赛道的机会 |  |
| 566 | 00:19:37,390 --> 00:19:39,630 | 所以我们在低功耗上做了很多工作 |  |
| 567 | 00:19:39,650 --> 00:19:42,770 | 我们称之为叫FLEXA API也好 |  |
| 568 | 00:19:42,790 --> 00:19:43,993 | 或者说DDR-LESS也好 |  |
| 569 | 00:19:43,993 --> 00:19:44,850 | 这样技术 |  |
| 570 | 00:19:45,350 --> 00:19:48,880 | 大家可以看到我刚才有列了一下 |  |
| 571 | 00:19:48,881 --> 00:19:52,340 | 像我们的AI技术就成为NPU成了DSP GPU |  |
| 572 | 00:19:52,341 --> 00:19:53,040 | 包括视频 |  |
| 573 | 00:19:53,041 --> 00:19:55,534 | 音频以及图形处理 |  |
| 574 | 00:19:55,534 --> 00:19:56,700 | GPU技术也好 |  |
| 575 | 00:19:56,935 --> 00:19:57,975 | 我们都有提供一个接口 |  |
| 576 | 00:19:57,976 --> 00:19:59,915 | 我们称之为叫FLEXA API |  |
| 577 | 00:20:00,962 --> 00:20:05,055 | 在流水线里面它做出硬件的一些开放接口 |  |
| 578 | 00:20:05,056 --> 00:20:08,675 | 才可以跟外面的这些RISC-V做一些 |  |
| 579 | 00:20:08,875 --> 00:20:11,335 | 指令集的一些扩展和深度融合 |  |
| 580 | 00:20:11,535 --> 00:20:15,034 | 说白了就打造了一套深度订购的一堂课 |  |
| 581 | 00:20:15,300 --> 00:20:17,075 | 管道是集成的一些IP技术 |  |
| 582 | 00:20:17,135 --> 00:20:19,455 | 在软件和硬件达到什么目的呢 |  |
| 583 | 00:20:19,755 --> 00:20:21,395 | 就是你可以在一个终端设备上 |  |
| 584 | 00:20:21,810 --> 00:20:22,530 | 不需要抵押 |  |
| 585 | 00:20:22,590 --> 00:20:24,428 | 因为你说的数据和分配数据 |  |
| 586 | 00:20:24,428 --> 00:20:26,350 | 都是在整个【】耦合在一起的 |  |
| 587 | 00:20:26,550 --> 00:20:28,130 | 这就是我们为什么喜欢RISC-V |  |
| 588 | 00:20:28,210 --> 00:20:29,871 | 因为它可以实现在处理器 |  |
| 589 | 00:20:29,871 --> 00:20:32,370 | 和我们这些 DPU上的一些深度整合 |  |
| 590 | 00:20:32,580 --> 00:20:34,546 | 把控制信号 数据 通信 |  |
| 591 | 00:20:34,900 --> 00:20:36,320 | 都直接对接在一起 |  |
| 592 | 00:20:36,321 --> 00:20:38,220 | 实现真正的低延时和低带宽 |  |
| 593 | 00:20:38,300 --> 00:20:39,780 | 这个对于像眼镜这种 |  |
| 594 | 00:20:39,820 --> 00:20:41,253 | 大的这种行业里面的 |  |
| 595 | 00:20:41,253 --> 00:20:42,440 | 应用的一个趋势来说 |  |
| 596 | 00:20:42,820 --> 00:20:43,871 | 都是非常好的一个技术 |  |
| 597 | 00:20:43,871 --> 00:20:44,740 | 一个布局 |  |
| 598 | 00:20:45,280 --> 00:20:46,096 | 所以可以看到 |  |
| 599 | 00:20:46,096 --> 00:20:46,660 | 整个一个总结 |  |
| 600 | 00:20:46,661 --> 00:20:48,620 | 你们看到像我们skill level系列 |  |
| 601 | 00:20:48,690 --> 00:20:50,560 | 我们叫很小的【】 |  |
| 602 | 00:20:50,640 --> 00:20:54,600 | 从我们的3D到视频 到DSP到视觉 |  |
| 603 | 00:20:54,985 --> 00:20:56,359 | 包括做了一些手表里面 |  |
| 604 | 00:20:56,359 --> 00:20:57,465 | 这种矢量处理器 |  |
| 605 | 00:20:57,505 --> 00:20:58,745 | 它不是3D 也不是2D |  |
| 606 | 00:20:58,825 --> 00:20:59,750 | 称之为2.5D |  |
| 607 | 00:21:00,037 --> 00:21:01,405 | 在一些GPU技术很小 |  |
| 608 | 00:21:01,585 --> 00:21:04,005 | 功耗是核心之一等等 |  |
| 609 | 00:21:04,006 --> 00:21:05,325 | 我们打造一套level系列 |  |
| 610 | 00:21:05,485 --> 00:21:07,045 | 通过他们通过【】 |  |
| 611 | 00:21:07,462 --> 00:21:09,570 | 跟RISC-V对接在一起 |  |
| 612 | 00:21:11,241 --> 00:21:12,481 | 所以这样我们可以看到 |  |
| 613 | 00:21:12,481 --> 00:21:13,961 | 整个从IP角度来看 |  |
| 614 | 00:21:13,961 --> 00:21:14,812 | 也还有很大的机会 |  |
| 615 | 00:21:14,812 --> 00:21:15,820 | 就是称为芯粒 |  |
| 616 | 00:21:15,856 --> 00:21:16,587 | 芯粒就说 |  |
| 617 | 00:21:16,587 --> 00:21:18,340 | 实际上你不是所有的东西【】 |  |
| 618 | 00:21:18,820 --> 00:21:20,160 | 像MD塞克做得非常好 |  |
| 619 | 00:21:20,161 --> 00:21:21,340 | MD现在趋势也非常好 |  |
| 620 | 00:21:21,341 --> 00:21:22,703 | 大家可以看到MD实际上 |  |
| 621 | 00:21:23,010 --> 00:21:24,106 | 跟英特尔一样 |  |
| 622 | 00:21:24,106 --> 00:21:24,943 | 是做大CPU的 |  |
| 623 | 00:21:24,943 --> 00:21:27,065 | 做大这种【】 |  |
| 624 | 00:21:27,425 --> 00:21:29,545 | 但是实际上他们在做小芯片这一块 |  |
| 625 | 00:21:30,165 --> 00:21:32,865 | 做大CPU做的很好 |  |
| 626 | 00:21:32,866 --> 00:21:33,645 | 也是做小芯片 |  |
| 627 | 00:21:33,845 --> 00:21:35,105 | 因为不是所有的芯片都一定 |  |
| 628 | 00:21:35,106 --> 00:21:36,265 | 是要求5nm和7nm的 |  |
| 629 | 00:21:37,560 --> 00:21:39,471 | 那我们称之为叫IP 即芯粒 |  |
| 630 | 00:21:39,471 --> 00:21:40,450 | 也就是说把IP |  |
| 631 | 00:21:40,490 --> 00:21:41,556 | 或者说一些IP |  |
| 632 | 00:21:41,556 --> 00:21:42,910 | 做成一个子系统以后 |  |
| 633 | 00:21:43,250 --> 00:21:45,290 | 通过以大【】的形式 |  |
| 634 | 00:21:45,291 --> 00:21:46,118 | 以硅片的形式 |  |
| 635 | 00:21:46,118 --> 00:21:47,930 | 把它交付到客户的手里面 |  |
| 636 | 00:21:47,970 --> 00:21:50,830 | 也就是说传统你就用IP从授权到最后 |  |
| 637 | 00:21:50,870 --> 00:21:51,570 | 【】的芯片 |  |
| 638 | 00:21:51,571 --> 00:21:53,110 | 大概需要一年半到两年的时间 |  |
| 639 | 00:21:53,560 --> 00:21:55,760 | 但是有了IP即芯粒的这种概念 |  |
| 640 | 00:21:55,760 --> 00:21:57,219 | 称为Chiple这个概念之后 |  |
| 641 | 00:21:57,500 --> 00:21:58,820 | 那实际上就可见即可得 |  |
| 642 | 00:21:59,293 --> 00:22:02,200 | 因为像封装技术已经很领先了 |  |
| 643 | 00:22:02,580 --> 00:22:03,737 | 那通过封装2.5D封装 |  |
| 644 | 00:22:03,737 --> 00:22:04,780 | 或3D封装 |  |
| 645 | 00:22:05,070 --> 00:22:06,150 | 你就可以把不同的IP |  |
| 646 | 00:22:06,150 --> 00:22:06,990 | 或者IP子系统 |  |
| 647 | 00:22:07,070 --> 00:22:08,430 | 比如像RISC-V这样一些 |  |
| 648 | 00:22:08,750 --> 00:22:10,090 | IP的一些硬化的方案 |  |
| 649 | 00:22:10,091 --> 00:22:12,390 | 包括通过【】跟一些 |  |
| 650 | 00:22:12,650 --> 00:22:14,110 | 比如多媒体处理的硬化的方案 |  |
| 651 | 00:22:14,150 --> 00:22:15,490 | 形成一个一套子系统 |  |
| 652 | 00:22:15,590 --> 00:22:16,750 | 就像乐高一样 |  |
| 653 | 00:22:17,390 --> 00:22:18,490 | 把那块手搭在一起 |  |
| 654 | 00:22:18,550 --> 00:22:20,670 | 虽然我们已经投这颗芯片在 |  |
| 655 | 00:22:21,050 --> 00:22:23,030 | 12nm大概做了250个平方 |  |
| 656 | 00:22:23,210 --> 00:22:25,250 | 这大概一个【】已经点亮了 |  |
| 657 | 00:22:25,930 --> 00:22:28,335 | 它里面有一个八核的系统 |  |
| 658 | 00:22:28,335 --> 00:22:29,393 | 有最长的GPU |  |
| 659 | 00:22:29,393 --> 00:22:30,495 | 最强的AI等等 |  |
| 660 | 00:22:30,715 --> 00:22:31,615 | 我们把它做出来之后 |  |
| 661 | 00:22:31,616 --> 00:22:32,675 | 我们先去把它割开 |  |
| 662 | 00:22:33,255 --> 00:22:33,895 | 割开之后 |  |
| 663 | 00:22:34,055 --> 00:22:34,759 | 它里面每一块 |  |
| 664 | 00:22:34,759 --> 00:22:36,135 | 比如说你的显示这一块 |  |
| 665 | 00:22:36,175 --> 00:22:38,190 | 或者说你的GPU这一块儿 |  |
| 666 | 00:22:38,191 --> 00:22:39,430 | 或者AI这一块等等 |  |
| 667 | 00:22:39,431 --> 00:22:41,870 | CPU这块都可以把它割成不同的一些心意芯粒 |  |
| 668 | 00:22:42,030 --> 00:22:43,212 | 你可能继续说12nm的 |  |
| 669 | 00:22:43,212 --> 00:22:44,962 | 可以基于22nm |  |
| 670 | 00:22:45,206 --> 00:22:46,310 | 也许你的CPU强一点 |  |
| 671 | 00:22:46,311 --> 00:22:47,670 | 可能跑7nm或者5nm |  |
| 672 | 00:22:48,190 --> 00:22:48,930 | 当你割开之后 |  |
| 673 | 00:22:48,931 --> 00:22:50,868 | 你就可以通过这种封装的形式 |  |
| 674 | 00:22:50,868 --> 00:22:52,255 | 把它组合在一起 |  |
| 675 | 00:22:52,315 --> 00:22:53,676 | 你看可以做成一个芯片1 |  |
| 676 | 00:22:53,730 --> 00:22:54,530 | 一个芯片2 |  |
| 677 | 00:22:54,570 --> 00:22:56,450 | 这样就很快速的把产品做出来 |  |
| 678 | 00:22:56,830 --> 00:22:58,690 | 但这个东西不是说你有IP就能做出来 |  |
| 679 | 00:22:58,730 --> 00:23:00,310 | 你还有很强的芯片设计能力 |  |
| 680 | 00:23:00,530 --> 00:23:02,190 | 你就把这IP能够做成芯片化 |  |
| 681 | 00:23:02,900 --> 00:23:04,850 | 要提供他的ppi够好 |  |
| 682 | 00:23:05,310 --> 00:23:06,330 | 这就是我说引入 |  |
| 683 | 00:23:06,331 --> 00:23:06,950 | 我们另外一个 |  |
| 684 | 00:23:06,950 --> 00:23:08,570 | 就是我们做芯片设计业务这一块 |  |
| 685 | 00:23:08,770 --> 00:23:09,990 | 实际上我们在很早 |  |
| 686 | 00:23:10,050 --> 00:23:11,350 | 几年前就开始做5nm了 |  |
| 687 | 00:23:11,490 --> 00:23:12,690 | 他们对外也不怎么宣传 |  |
| 688 | 00:23:13,370 --> 00:23:14,430 | 所以在系统这块 |  |
| 689 | 00:23:14,431 --> 00:23:15,970 | 我们上有很多系统厂商 |  |
| 690 | 00:23:15,971 --> 00:23:17,050 | 他们只是提供需求 |  |
| 691 | 00:23:17,090 --> 00:23:19,150 | 我们给它实现这个芯片的设计 |  |
| 692 | 00:23:19,410 --> 00:23:20,478 | 就整个收入这块 |  |
| 693 | 00:23:20,478 --> 00:23:21,890 | 已经占到我们整个百分之三十三以上 |  |
| 694 | 00:23:22,450 --> 00:23:23,870 | 所以我们在整个量产业务这块 |  |
| 695 | 00:23:24,010 --> 00:23:25,730 | 我们把芯片做好就提供给用户 |  |
| 696 | 00:23:25,890 --> 00:23:27,230 | 它增长也是比较快的 |  |
| 697 | 00:23:27,231 --> 00:23:28,330 | 也占了百分之二十几 |  |
| 698 | 00:23:28,430 --> 00:23:29,610 | 因为它底子比较大 |  |
| 699 | 00:23:29,690 --> 00:23:31,303 | 所以它又是占我们整个收入的 |  |
| 700 | 00:23:31,303 --> 00:23:32,330 | 百分之六十左右 |  |
| 701 | 00:23:33,280 --> 00:23:34,840 | 所以我们提供一站式芯片设计服务 |  |
| 702 | 00:23:35,000 --> 00:23:35,862 | 你告诉我规格 |  |
| 703 | 00:23:35,862 --> 00:23:36,740 | 我给你做芯片 |  |
| 704 | 00:23:38,500 --> 00:23:40,600 | 所以这种大概整个设计情况 |  |
| 705 | 00:23:40,681 --> 00:23:42,780 | 尤其在高级工艺上做了很多的设计 |  |
| 706 | 00:23:43,195 --> 00:23:44,221 | 但是我们认为 |  |
| 707 | 00:23:44,222 --> 00:23:44,946 | 实际上这个技术 |  |
| 708 | 00:23:44,946 --> 00:23:45,476 | 我们绿色的 |  |
| 709 | 00:23:45,476 --> 00:23:46,337 | 像比如说国外 |  |
| 710 | 00:23:46,337 --> 00:23:47,215 | 比如美国的技术 |  |
| 711 | 00:23:47,235 --> 00:23:49,335 | 中国技术在紫色条件的逐步增长 |  |
| 712 | 00:23:49,695 --> 00:23:51,000 | 这个趋势在逐步缩小 |  |
| 713 | 00:23:51,156 --> 00:23:52,075 | 但是需要时间 |  |
| 714 | 00:23:52,076 --> 00:23:53,735 | 所以我们一定要在一些关键技术上 |  |
| 715 | 00:23:53,945 --> 00:23:55,625 | 做出追赶或做出跨越 |  |
| 716 | 00:23:55,626 --> 00:23:57,085 | 我们称之像IP的一些技术 |  |
| 717 | 00:23:57,645 --> 00:23:59,405 | 所以我们希望像通过新颖的方式 |  |
| 718 | 00:23:59,406 --> 00:24:00,885 | 通过RISC-V这个机会 |  |
| 719 | 00:24:00,945 --> 00:24:02,165 | 能够实现这样一个超越 |  |
| 720 | 00:24:03,000 --> 00:24:04,220 | 所以我们做一些行业一些推广 |  |
| 721 | 00:24:04,221 --> 00:24:05,393 | 比如在中国松山湖 |  |
| 722 | 00:24:05,393 --> 00:24:06,780 | 做了十一年的这种推广 |  |
| 723 | 00:24:06,781 --> 00:24:07,460 | 所以大家可以看到 |  |
| 724 | 00:24:07,461 --> 00:24:08,680 | 我们列出下面这公司 |  |
| 725 | 00:24:08,920 --> 00:24:10,000 | 什么时候我们推荐他们 |  |
| 726 | 00:24:10,040 --> 00:24:11,220 | 他们什么时候上的市 |  |
| 727 | 00:24:11,280 --> 00:24:12,731 | 没有找一些很好的差异 |  |
| 728 | 00:24:12,918 --> 00:24:15,720 | 来帮助企业做进展 |  |
| 729 | 00:24:15,721 --> 00:24:17,080 | 所以我们芯来的技术 |  |
| 730 | 00:24:17,480 --> 00:24:18,480 | 带来三年的突飞猛进 |  |
| 731 | 00:24:18,481 --> 00:24:19,240 | 我们也乐意 |  |
| 732 | 00:24:19,241 --> 00:24:20,093 | 非常高兴的看到 |  |
| 733 | 00:24:20,093 --> 00:24:21,000 | 他们这样一个成长 |  |
| 734 | 00:24:21,805 --> 00:24:23,385 | 这是我们媒体的报道 |  |
| 735 | 00:24:23,425 --> 00:24:24,665 | 所以我们芯来的目的是这样 |  |
| 736 | 00:24:24,725 --> 00:24:27,705 | 说我们是以产品级的这种要求 |  |
| 737 | 00:24:27,745 --> 00:24:29,765 | 打造这样的IP和设计服务能力 |  |
| 738 | 00:24:29,925 --> 00:24:31,285 | 但是提供一平台的方案 |  |
| 739 | 00:24:31,286 --> 00:24:32,778 | 比如说跟RISC-V的结合 |  |
| 740 | 00:24:32,959 --> 00:24:34,540 | 以及构建这个生态 |  |
| 741 | 00:24:34,541 --> 00:24:35,300 | 比如说我们打造 |  |
| 742 | 00:24:35,356 --> 00:24:37,856 | 组织中国的RISC-V产业联盟 |  |
| 743 | 00:24:38,280 --> 00:24:39,900 | 就需要能够从最小的技术 |  |
| 744 | 00:24:39,901 --> 00:24:42,080 | 一个核心IP到整个生态这块 |  |
| 745 | 00:24:42,120 --> 00:24:43,590 | 为大家整个产业做服务 |  |
| 746 | 00:24:43,590 --> 00:24:44,415 | 好 谢谢 |  |
| 747 | 00:24:44,416 --> 00:24:45,284 | 因为时间比较紧张 |  |
| 748 | 00:24:45,284 --> 00:24:46,095 | 所以长得比较快 |  |
| 749 | 00:24:46,215 --> 00:24:46,795 | 谢谢各位 |  |