

XEKERA SYSTEMS

Solutions Simplified

WE BRING THE LEAN STARTUP APPROACH TO INNOVATION IN COMPANIES OF ALL SIZES

SERVING 20 YEARS IN DESIGN,
DEVELOPMENT, HDI PCB & ASSEMBLY
SERVICES

Google

facebook.

byte®

intel®

✓ Symantec™

PROPEL
ORTHODONTICS

F·Prin
First Principles Based Engineering & Design

BROADCOM®

ACCLIVIS
Technology Simplified

Microsoft

dexcom®

FLUIDIGM®

COMET

SAHIL
SEMICONDUCTOR

INVENIO

elastica

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PRODUCT SOLUTIONS AND SERVICES

1. ELECTRONIC DESIGN & DEVELOPMENT SERVICE

Our extensive experience spans a wide range of industries:

- medical, military, telecommunications, entertainment, sports, commercial, and industrial sectors.

-PROJECTS INCLUDE:

- telecommunications
- software development
- power
- re-engineering of obsolete designs
- RF
- EMI/EMC and safety testing
- analog electronics
- CE marking]
- digital electronics
- motor controls

-ADVANTAGES:

- Reduce time to market
- Operate with 3 major steps:
 - Undertake feasibility studies for ensuring economic and engineering viability of project
 - Prepare a comprehensive project specification and consult for an agreement.
 - Deliver on time and within budget
- Provide the Sustained Engineering Contract for a yearlong support
- Integrate all activities under one roof to move forward simultaneously.
- Rapid prototyping and agile production
 - PCB services are leading in the USA
- Extensive range of development equipment

DESIGN SERVICE:

- FORMING THE INITIAL CONCEPT
- MAKING A FEASIBILITY STUDY
- DEVELOPING THE HARDWARE
- DEVELOPING THE FIRMWARE AND SOFTWARE
- DESIGN VERIFICATION THROUGH PRE-PRODUCTION BUILDS
- PRODUCTION PHASE

SYSTEM DESIGN INVOLVES:

- SERIAL COMMUNICATIONS
- BLUETOOTH
- WIRELESS
- USB
- ETHERNET
- DIGITAL CONTROLS
- MICRO-PROCESSORS
- MICRO-CONTROLLERS
- PIC CONTROLLERS



PRODUCT SOLUTIONS AND SERVICES

2. FIRMWARE AND SOFTWARE

- Our competency in algorithm writing is unmatchable
 - Our firmware gurus deliver images that are entirely optimized and scalable
 - Our capabilities to mitigate hardware issues through firmware are unique
- OPERATING SYSTEM & EMBEDDED OS
 - MIDDLEWARE & APPLICATION SOFTWARE
 - FIRMWARE & DEVICE DRIVERS
 - CUSTOM BOOT LOADERS
 - GUI & UX
 - CLOUD DATA MANAGEMENT
 - ALGORITHMS
 - GIS SERVICES & SOLUTIONS
 - MOBILE APP DEVELOPMENT
 - WEB DESIGN
 - PRODUCT DESIGN TOOL
 - WEB DEVELOPMENT
 - CLOUD-BASED DEVELOPMENT

PROJECTS INCLUDE:

- VPRO
- DENTSKAN APP
- CHIPVELOCITY.COM
- GOOGLE AUDIO/VIDEO CALIBRATION ALGORITHMS
- CIRCUIT.PK
- ETHINGZZ.COM

```
self.file = None
self.fingerprints = set()
self.logdups = True
self.debug = debug
self.logger = logging.getLogger(__name__)
if path:
    self.file = open(os.path.join(path, 'fingerprint.log'), 'a')
    self.file.seek(0)
    self.fingerprints.update(self.logger.handlers)

classmethod
from settings(cls, settings):
    debug = settings.getbool('debug', False)
    return cls(job_dir(settings), debug)

def request_seen(self, request):
    fp = self.request_fingerprint(request)
    if fp in self.fingerprints:
        return True
    self.fingerprints.add(fp)
    if self.file:
        self.file.write(fp + os.linesep)
```

PRODUCT SOLUTIONS AND SERVICES

3. TESTING & COMPLIANCE

- Write diagnostics tests:
 - product feature testing, end-to-end product functional testing, regression testing procedures, full stack TCP/IP compliance testing
- Minimize risks in unforeseen product issues in the field, and save design re-spin costs

- TEST PLAN CREATION

- Perform variety of tests to ensure the success of your idea
- Aim to find bugs, rectify them, reduce the development and maintenance costs, improve performance, and improve the user interface.

- TCP/IP PROTOCOL COMPLIANCE

- Ensure TCP/IP protocol compliance by vulnerability and robustness testing using advanced test suites bundled with flexibility, optimization, and customization.

- ATE & PRODUCT TEST

- With Automatic Test Equipment (ATE) & product test solutions:
 - Cut your production, design, life-cycle, and repair costs
- Wafer and package level testing support
 - Develop wafer sort programs for ASIC, memory, & analogic modules.

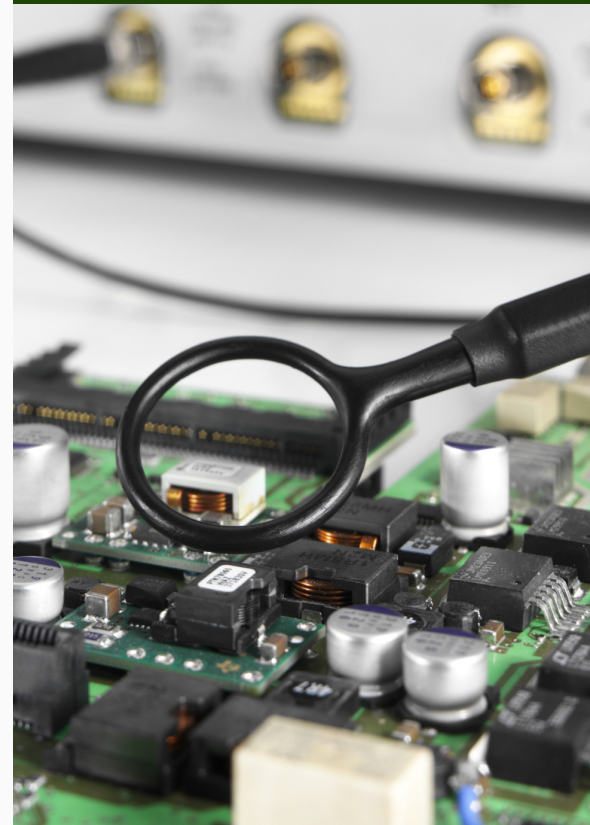
- COMPLIANCE/REGRESSION TESTING

- Provide max test coverage using a minimum cost of assessment/risk
- Terminate the testing after potential risk has been detected

- PRODUCT RELIABILITY TEST

- Ensure product's reliability is not at stake
- Perform a series of reliability tests to ensure quality/durability are consistent
 - Tests are performed at both the design and production levels.

" Due to our strength in the design of core systems of hardware and firmware, we have the expertise to go deeper than the average test plan coverage. "



PRODUCT SOLUTIONS AND SERVICES

4. LABS, REWORKS AND REPAIRS

- On demand fast rework via fast debug and High density work
- We can get the job done and get your circuit boards back to you for a charge that's generally just a fraction of the circuit board's value!

- BGA REWORK

Equipped with the latest Hot air and IR rework stations!

- FINE PITCH COMPONENTS

Xekera offers fine pitch on circuit assembly

- High Density/Flex Connector

Xekera offers full-service, PCB/flex circuit assembly

- QFN

Xekera offers dual row QFN test test

We design it, we build it. With over 20 years of experience manufacturing flex and rigid-flex PCBs, we can build complex jobs like no one else!

Need a flex prototype

built quickly?

Our manufacturing

facilities will get your

PCB design built fast!



PRODUCT SOLUTIONS AND SERVICES

5. FCC CERTIFICATION

Our Compliance Solutions Can Help You With FCC Certification Testing & Product Approval!

- TCB SERVICE

- Our Compliance Solutions can prepare all the necessary forms and electronically file applications/exhibits for FCC and Canadian certifications
- Once completed, we assist the manufacturer in submitting to the TCB for FCC & IC Certification.

- COMPLIANCE SOLUTIONS

- Fast turnaround on reviewing/issuing reports for submission to the TCB
- Guidance on attaining certification through our TCB partners
- Accredited testing against industry and government compliance standards



**Experienced
Staff**

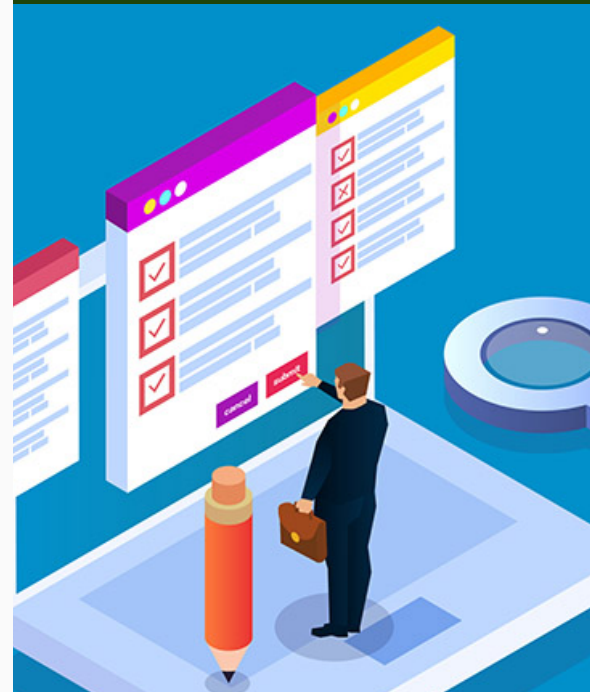


**Fast
Turnaround**



**Comprehensive
Test**

Call 
(408) 915-9849
today for a free
**FCC certification
testing
consultation!**



MICROSOFT CLOUD SOLUTIONS

1. MICROSOFT AZURE CONSULTING

-DATA CENTER MIGRATION:

- REHOST
- REFCATOR
- REARCHITECT
- REBUILD

-DEVELOPMENT SERVICES:

- CREATING WEB APPLICATIONS
- AZURE POCs
- CUSTOMIZATION OF WEB APPS

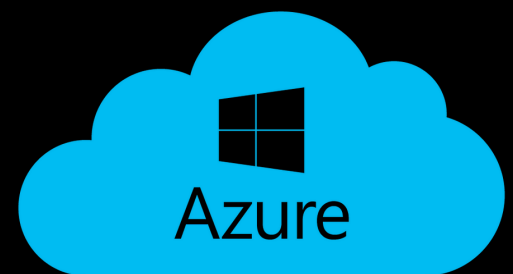
-DATA BACKUP/

DISASTER SITE RECOVERY:

- SECURE DATA & BUSINESS APPLICATIONS TO PREVENT EXPENSIVE BUSINESS INTERRUPTIONS
- LOWERS COST AND INCREASES RELIABILITY & SCALABILITY
- BUSINESS CONTINUITY PLAN THAT COVERS ALL MAJOR IT SYSTEMS

BENEFITS:

- 1. Month-to-Month Contract basis with no upfront costs
- 2. On the fly, add, remove, and scale up or down your resources
- 3. Only you/your trusted ones can access your Data Center from a single web page
- 4. Azure Cloud is trusted by 95% of Fortune 500 companies and has a 99% uptime guarantee from Microsoft.
- 5. For Windows Server and SQL Server, Azure Cloud is 5x less expensive than AWS.



MICROSOFT CLOUD SOLUTIONS

2. TEAMS CONSULTING

We Ensure Risk-Free Migration To Microsoft Teams And Provide Teams Custom Solutions based on your business needs.

-TEAMS CUSTOM & ISV SOLUTIONS:

- Building SaaS or custom apps on top of Teams.
- Extension of the workspace with third-party apps.
- Achieve desired business outcomes.
- 24/7 support.

-MICROSOFT TEAMS FOR EDUCATION:

- Creating Accounts for Teachers and Students
- Establishing Course Teams and Channels with the required permissions
- Training for Teachers
- Testing, Implementation, and Support

-MICROSOFT TEAMS FOR BUSINESS:

- Creating Channels for each Department
- Data migration
- Admin and Employee Training for Teams
- Testing, Implementation, and Support

-CUSTOMIZED APP DEMO:

- Company Communicator APP
- New Employee On-Boarding APP
- Leave Management APP

- Simple Collaboration for Remote Workers to Boost Productivity
- Chat, voice, video, and file-sharing features in real-time
- Integration with Your Existing Phone System
- Documents Can Be Securely Shared And Co-Authored With Automatic Version Control
- Meetings with partners & customers can be scheduled with a single click from inside the Teams app.



MICROSOFT CLOUD SOLUTIONS

3. MICROSOFT OFFICE 365 CONSULTING & MIGRATION

Experienced Office 365 administrators, consultants, and subject matter experts are available for Assistance 24/7.

-DEPLOYMENT:

- License Procurement
- Account creation/adding users
- Common apps are incorporated with other enterprise business applications to meet your needs.

-CUSTOMIZATION/INTEGRATION:

- Workflows
- Branded SharePoint pages
- Personalized add-ins
- Integrating Office 365 with your other business applications

-MIGRATION:

- One drive for business migration
- On-premise, cloud, or hybrid systems are easily converted to Office 365 on time and on budget
- Files, apps, mailboxes, and other items from an on-premise environment to Office 365 in a single successful attempt

No Cost Setup



Migration



Support



ORTHODONTIC PRODUCTS

VPRO

Delivers gentle vibrations to the mouth to improve and accelerate orthodontic treatment.

1. Cortex Arm Architecture/BLE

- Embedded Antenna
- I2C Interface/ Scalable Architecture
- Power Management
- Motor Driver/ Initialization/ Accelerometer
- IFU/LED Monitoring

2. Feature List:

- Device Usage/ Aligner Wear Time Monitoring
- Data Sharing Mechanism using email/cloud
- QR Code for Device Provisioning
- Active Battery Monitoring
- USB-C Charging
- Baked in recipe for vibration/ g-force
- FCC/EMC/CE compliant/60601-B compliant
- Initialization and Reset Mechanism
- Pairs with IOS and Androids for Data Tracking

3. Cortex Arm Architecture/BLE

- Lithium Polymer Battery

4. Cortex Arm Architecture/BLE

- For FW/APPS
- Notification on iOS and Android/Apple Watch



ORTHODONTIC PRODUCTS

VPRO +

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3. Proprietary Wireless Charging Mechanism

- Micro USB Charging Cradle with Optical Interface
- Induction Coil TX/RX Energy Transfer
- Lithium-Polymer Battery Charging

OUR PRODUCTS

THERMAL SENSING BOARD FOR ANDROIDS

Detects temperature by recognizing and capturing different levels of infrared light.

1. No Battery Required:

- Safe Operation Limits
- No Aging Issue
- Portable & Kiosk Modes

2. Bypass Charging/PRS :

- Power Role Swap
- Use phone as a power supply
- Can charge phone if external USB cable is connected
- Support Interface USB-C and USB PD 2.0/3.0

3. JTAG Trouble Shooting:

- Higher test coverage and shorter test times
- Increased diagnostic capability

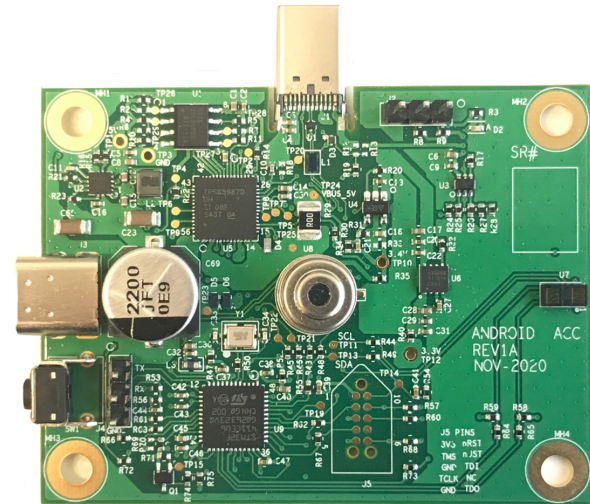
4. I2C:

- Chip addressing to Features
- Supports multi-master, multi-slave communication

5. TOF SENSOR:

- FOV = 27 deg
- Wake-up Mode: Motion detection within 135cm
- Sleep mode: when idle(no motion)

6. FCC part 15 Compliant



APP FEATURES:

- Capture thermal images with details (Time stamp, Max Temp, Min Temp, defect pixels)
- Live streaming and still capture mode
- ML kit does face recognition and mask recognition
- Firmware update feature

IR CAMERA SPECS:

- Measurement Accuracy: +/-3% OR 3K
- Measurement Distance: 0.3m to 0.5m
- Object Temp. Range: 25°C to 45°C
- Ambient Temp. Range: -20°C to 85°C
- IR Camera Resolution: 32*32
- IR FOV: 90°*90°
- OS: FreeRTOS

OUR PRODUCTS

THERMAL SENSING BOARD FOR APPLE PRODUCTS

Detects temperature by recognizing and capturing different levels of infrared light.

1. No Battery Required:

- Safe Operation Limits
- No Aging Issue
- Portable & Kiosk Modes

2. Bypass Charging/PRS:

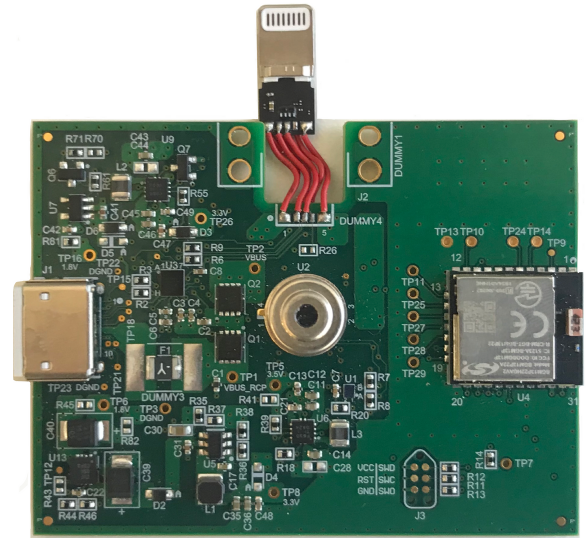
- Power Role Swap
- Use phone as a power supply
- Can charge phone if external USB cable is connected
- Support Interface USB-C and USB PD 2.0/3.0
- Lightning port

3. BLE:

- Offers low power consumption
- Withstand against interference
- Enables Digital life
- Fast Connection and Data Transfer

4. MFI COMPLIANT:

- Hardware approved by Apple
- MFI certified product



APP FEATURES:

- Capture thermal images with details (Time stamp, Max Temp, Min Temp, defect pixels)
- Live streaming and still capture mode
- ML kit does face recognition and mask recognition
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OUR PRODUCTS

DATA TRANSPORTER

Portable high performance device used for transporting data at 9.5+ GB per second across to identical systems

1. Features:

- Storage Server supports Dual Socket Intel CPU'S up to DDR4
- Portable tower with 10x NVMe 2.5" Drives (Rack Mount Option Available)
- (2) PCIe x24 slots for riser card deployment
- Optical Fiber Cable connected via Mellanox with capability to transfer data at appx. 9.5GB per second



2. Specifications:

- Processor Support: Intel Dual Xeon Skylake Silver Processor
- I/O Interface: 2x USB 3.0, 1x USB 2.0; 1x VGA port; 1x COM port;
- Memory supports: Supports up to 16X DIMMs DDR4 RIDIMM/ RIDIMM/RIDIMM 2666/2400 Mhz (Up to 2TB)
- Expansion Slots: (2) PCIe x24 slots for riser card deployment, (1) PCIe Gen3 x16 OCP 2.0 slot (conn. A + conn. B) /(1) PCIe Gen3 x16 storage mezz. slot
- Drive Bay: 10 x2.5" U.2 NVMe SSD drive/Removable canister (2) SATA-III / (1) Mini SAS HD (4-ports)/ Raid 0/1/10/5 (Intel RSTe) /(1) M.2connector(2280/2260/2242) by PCIe interface
- Power: 1+1 800W or 1600W AC/DC 80plus Platinum redundant power supplies, Optional -48VDC available
- Cooling: (6) 60x25mm fans or (4) 60x38mm +(2) 60x25mm; Serviceable Fan Tray, Temperature Sensors
- Multiple Temperature Sensors for thermal management
- Weight: Less than 40 lbs
- Dimension: 17" x 13" x 8"
- Compliance: CE, FCC Class A, RoHS 6/6 Compliant
- Front Loadable Canister
- Customized Re-timmer Switch Boards and Backplane
- Cross Connection across Data Transporters
- Network: 2 Mellanox 100GB Ports, Quad 10GB Ports,1x GBE Port -1
- Supported OS: Windows 2016 64bit, Linux RHEL 7.3, 7.4, 7.5 x64, SUSE 11 SPR x64, Ubuntu 17.04 x64

OUR PRODUCTS

DENT SKAN

Intra-oral scanner which creates a 3-D dental model of the mouth in preparation for ordering clear aligners

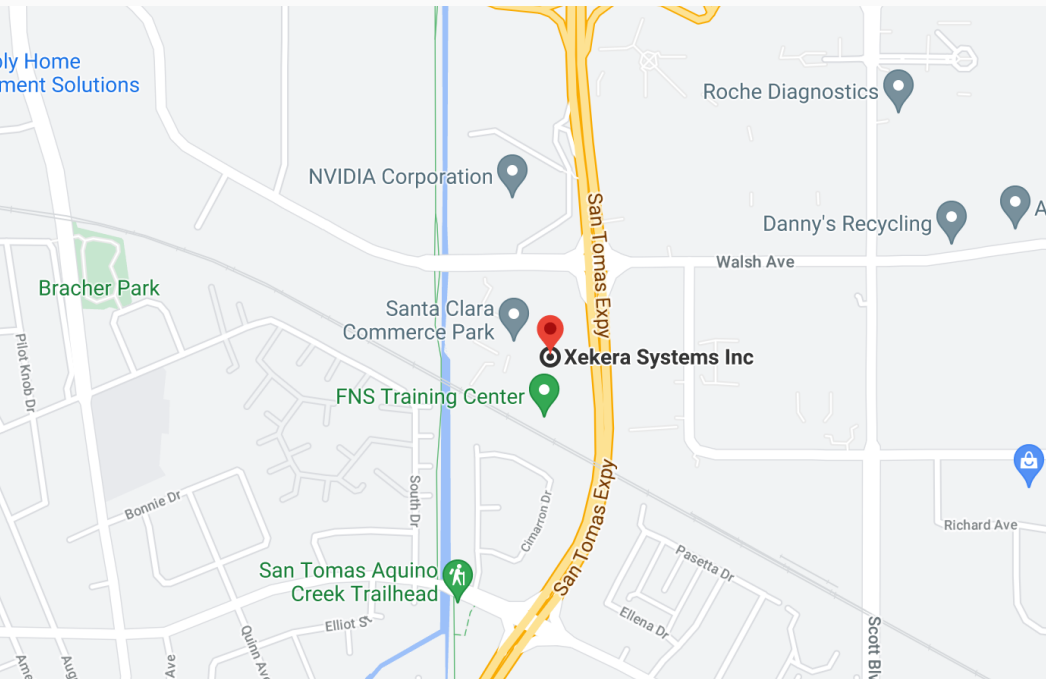
- Features:

- 3D Dental Scanning using Structured Light Technology
- Synchronous projection and capture of grey-code frames on intra-oral scanner POC setup:
 - Frames projected by litecrafter™ 4500 EVM
 - Frames received by FLIR camera
 - Connected by Hirose digital IO connector (HR10A7R-6PB & HR10A-7P-6S(73))
 - Triggering mechanism
- 3D Point cloud generation (single FOV)
 - Reconstruct 3D points using intersection w illumination planes
- Directly streams picture frames to your computing cloud
- Can utilize mobile phone, tablet, laptop, or PC
- Dent Skan App will allow you to resume scanning at any point
- Scan squares directly with clear aligner companies to get quotes



CONTACT US

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