



NEXUS APPLIED RESEARCH, INC.

Nexus Product Development Services for OEMs



Background

- **OEM services from conception to production since 1987**
- **U.S. based, with international support staff and manufacturing yielding average design costs less than \$65/hour**
- **Millions of Nexus designed units deployed.**



Nexus Clients

- ADC
- Adtran
- AFC
- Alcatel/DSC
- Alcatel/ITT
- Broadcom/Epigram
- Calix
- CAC
- Coastcom
- Illuminant/NEC
- Infinitec
- InterDigital
- Jetstream
- Next Level
- Palomar
- Pairgain
- Penntech
- Pliant
- PowerWan
- Shoreline
- Tekelec
- Teledata
- Tellabs
- UTStarcom



Product Development Services

- **Turn-key**
- **Project Management**
- **System Architecture and Design**
- **Specification Development**
- **Analog/Digital Circuit Design**
- **Software**
- **PCB Design**
- **Product Test and Verification**
- **Documentation**
- **Prototype and Production manufacturing**



Agency Certification Services

- **Analyze, Modify and Certify to Agency Standards**
 - EMI/EMC
 - Safety
 - RoHS (Restrictions on Hazardous Substances)
- **Moving international products into US**
- **Moving US products overseas**



Services: Analog/Digital Circuit Design

- **Analog**
 - Telecom line interface, DC to light: copper, coax, fiber
 - Switching power supply
 - High speed backplane
 - Design for ESD/EMC
- **Digital**
 - FPGA/CPLD
 - VHDL
 - Verilog



Services: Printed Circuit Board Design

- Staffed with engineers
- Designed to meet requirements:
 - High speed signal integrity
 - EMC/ESD
 - Crosstalk
 - Current carrying capacity
 - High voltage
 - UL/CSA
 - Thermal
- Material selection
- Design for Manufacturability (DFM)
- Design for Testability (DFT)
- Prototype/Production manufacturing



Custom Products: Subscriber Line Cards

- POTS
- UVG
 - Loop start
 - Ground start
 - DID
 - PLAR
- FXO/FXS
- Coin
- T1
- VoIP
- ADSL/ADSL2+
- VDSL/VDSL2
- G.SHDSL
- ISDN
- EBS (P-Phone)
- DDS
- E&M
- TO



Custom Products: Line and System Test Cards

- **Fits in Line Card Slot**
- **Line (“Drop”) Tests per Telcordia Specs**
 - Foreign Voltage, Resistance, Capacitance, Etc.
 - Compatible with MLT
- **Channel Unit Tests**
 - Battery, Ringing, Etc.
- **Telephone Tests**
 - DTMF, Dial Pulse, Etc.
- **Service Availability Tests**
 - Dial Tone, Digit Receiver, Level, Etc.



Custom Products: Gateways

- **Residential IADs**
- **GR-303/TR-08 to MGCP/SIP/H.248 VoIP**
- **VoIP over POTS Line Access Gateway**
- **VoIP over DSL Line Access Gateway**



Nexus Strengths

- **Commitment to client satisfaction**
- **Flexibility**
- **Experience**
- **Proven design excellence**
- **Longevity**



Nexus Benefits

- **Shorter time to market**
- **Lower cost to develop**
- **Lower recruitment requirements**
- **More efficient use of in-house resources**
- **Immediate access to new technologies**
- **Reduced investment in specialized tools**
- **Long term support**



Contact Us

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