

NEC
SILICON & GaAs
WIRELESS
SEMICONDUCTOR
PRODUCTS

Silicon RFICs

- Wideband Amplifiers
*High Gain, Low Noise
Low Power Consumption*
- Frequency Up
and Down Converters
- Video Amplifiers
- AGC Amplifiers
- IQ Modulators
and Demodulators
- Receiver ICs
*GPS, RKE, Wireless
Security and others*

Small Signal GaAs FETs

- MESFETs
- Hetero Junction FETs
- Dual Gate MESFETs
- HBT Transistors
- Chips and Packaged
Devices
*NF < 0.35 dB @ 12 GHz
Excellent performance
through K-Band
Low Cost Plastic Packages*

Fiber Optic Devices

- Lasers
*Tunable Lasers
w/Wavelength Locker
DWDM CW and
CW w/Wavelength Locker
DWDM 2.5G and 10G EMLs
w/Wavelength Locker
DWDM 10G EML w/Driver IC
10G uncooled DFB DML
FP/DFB in Coaxial and
CAN Packages
CWDM DFB Lasers
3.8mm FP/DFB TOSA
Pumps, OTDR Lasers*

Silicon Transistors

- Bipolars, SiGe, LDMOS
- Low Noise Devices
- Low Cost Devices
- Medium Power LDMOS
Devices (*up to 3W*)
- Twin Transistors
- Chips & Packaged Devices
*f_r's to 60 GHz, NF < 1.0 dB @ 2 GHz
Low Supply Voltage and Current*

Power GaAs FETs

- Medium Power Drivers
Up to 10W
- Surface Mount Devices
UHF through S Band

- Detectors
*InGaAs Avalanche
and PIN Photodetectors
APDs for OTDR
4.6mm PIN+TIA and
APD+TIA ROSA
10G PIN+TIA and
APD+TIA*

Silicon Prescalers

- Bandwidth to 3GHz
- Fixed & Selectable
Divide Ratios
- Low Cost 8 Pin Packages

CATV Hybrid Amplifiers

- GaAs Push-Pull Amplifiers
*50 to 870MHz Bandwidth
18, 22 and 25dB Gain devices*
- GaAs Power Doublers
*50 to 870MHz Bandwidth
18, 22 and 25 dB Gain devices
High output versions*

Optocouplers

- AC and DC Input
*IC, Transistor or
Linear Output
Single and Multi-Channel
High Isolation Voltage
30V – 350V Breakdown
TTL Compatible/High CMRR
High CTR
50 – 6500%
4-Pin DIP, SOP, SSOP,
and ultra-small
"Mini-Flat" Packages*

GaAs Switches

- SPDT Switches
*DC to 3.0GHz
Up to +36 dBm Input P_{1dB}
SOT-26, SOT-363 and
ultra-small "TK" Packages
1.8V and Single Pin Control
versions also available*

GaAs Driver Amplifiers

- TDMA Amplifiers
- TDMA AGC Amplifiers
- CDMA Amplifiers

Solid State Relays

- Optically Coupled MOSFETs
*1 Form A / 2 Form A,
1 Form B / 2 Form B,
and 1 Form C
DIP, SOP, and ultra-small
"Mini-Flat" Packages
High Voltage: 40–1000 V
High Current: to 5A
Low On-Resistance
Low Capacitance
Low C_{xR}
Applicable to 1GHz
Current Limiting*

NEC
OPTOELECTRONIC
PRODUCTS

MORE
INFORMATION

Data Sheets, Application Notes, S-Parameters, and Nonlinear Modeling Data can all be found at www.cel.com

NEC

A Business Partner of NEC Compound Semiconductor Devices, Ltd.

NEC is a trademark of NEC Corporation.

1 Headquarters

4590 Patrick Henry Drive
 Santa Clara, CA 95054-1817
 Tel. (408) 988-3500
 Fax. (408) 988-0279

Japan Branch Office

Shibuya-Ku, Tokyo
 (03)3486-1361

**EXPERIENCED
 ENGINEERING
 & APPLICATIONS
 SUPPORT ARE
 JUST A PHONE
 CALL AWAY.**

CEL Sales Offices

2 Northern California
 Santa Clara, CA
 Tel. (408) 588-2247
 Fax. (408) 588-2213

3 Southern California
 Irvine, CA
 Tel. (949) 829-8300
 Fax. (949) 829-8992

4 Pacific Northwest and Western Canada
 Bellevue, WA
 Tel. (425) 883-9511
 Fax. (425) 883-9656

5 South Central
 Coppell, TX
 Tel. (972) 745-1880
 Fax. (972) 745-1855

6 Mid Central
 Olathe, KS
 Tel. (913) 780-1380
 Fax. (913) 780-1382

 Lakeville, MN
 Tel. (952) 469-3962
 Fax. (952) 469-9428

7 East Central
 Baltimore, MD
 Tel. (410) 682-4111
 Fax. (410) 682-4128

8 Northeast
 Middleton, MA
 Tel. (978) 762-7400
 Fax. (978) 762-7444

9 Southeast
 Snellville, GA
 Tel. (770) 978-4443
 Fax. (770) 978-4262

10 Metro New York
 Hackettstown, NJ
 Tel. (908) 850-7600
 Fax. (908) 850-7696

11 Florida
 Altamonte Springs, FL
 Tel. (407) 774-7682
 Fax. (407) 774-6982

*** Automotive Semiconductor Devices Center**
 Lisle, IL
 Tel. (630) 241-3040
 Fax. (630) 241-3057

14 Indiana/Kentucky
 TMC
 Carmel, IN
 Tel. (317) 844-8462
 Fax. (317) 573-5472

15 Michigan
 TMC
 Sterling Heights, MI
 Tel. (586) 731-3016
 Fax. (586) 731-9652

16 Ohio
 TMC
 Cincinnati, OH
 Tel. (513) 984-6720
 Fax. (513) 936-6515

 Independence, OH
 Tel. (216) 520-0150
 Fax. (216) 520-0190

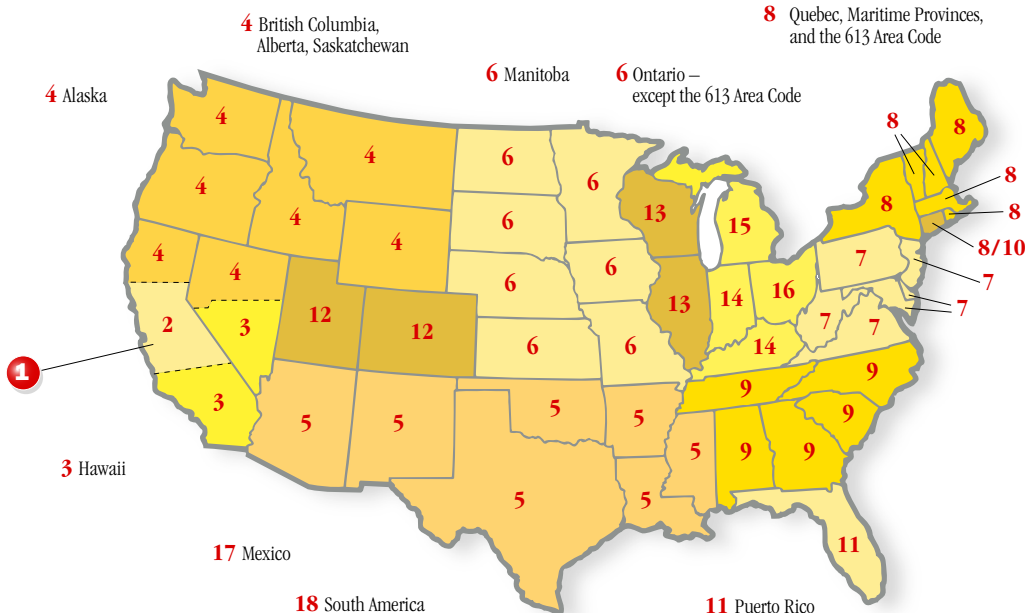
17 Mexico
 Vista Solutions
 Zapopan, Jalisco, Mexico
 Tel. 011-52-333-836-6319
 Fax. 011-52-333-836-6329

18 South America
 Vista Solutions
 Sao Paulo, Brazil
 Tel. 011-55-115-505-8011
 Fax. 011-55-115-505-7160

Representatives

12 Colorado/Utah
 Albright Engineering
 Englewood, CO
 Tel. (303) 877-9524
 Fax. (303) 768-8328

13 Illinois/Wisconsin
 GTSCC
 Hoffman Estates, IL
 Tel. (847) 781-4010
 Fax. (847) 781-4015



A Business Partner of NEC Compound Semiconductor Devices, Ltd.

NEC is a trademark of NEC Corporation.