

## History / Achievement

### 1976-1988

#### 1976

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- [ Establishment of Large Scale Integrated Memory Division ]
- Corroboration of Long Wave Length Band Optical

#### 1977

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- Fabrication of a 64 kbit Memory (DRAM)
- Fabrication of Optical Fiber by Vapor-phase Axial Deposition



#### 1978

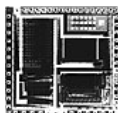
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- Invention of SIMOX Technology

#### 1979

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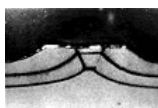
- Development of a Single-chip LSI for PARCOR Speech Synthesis
- Fabrication of a 256 kbit Memory (DRAM)
- Development of 0.2 dB/km very low loss Optical Fiber



#### 1980

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- Development of Super-High-Purity Optical Fiber
- Invention of Master Key Method of Public Key Cryptosystem
- Sustained Room Temperature Operation of 1.55  $\mu\text{m}$  Semiconductor Laser



#### 1981

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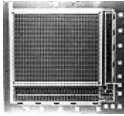
- Fabrication of CMOS 32 Bit VLSI Processor\* Sustained Room Temperature Operation of DFB Laser

#### 1982

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- [ Establishment of Functional Device Research Department ]
- Measurement of Soliton transmission on Joseffson transmission line

- Fabrication of 1 Mbit Memory (DRAM)



- Gallium Arsenide 1Kbit LSI Memory

## 1983

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- [ Establishment of Atsugi Electrical Communications Laboratories ]



## 1984

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- [ Establishment of Information Communications and Materials science basic Research Department ]
- Achievement of a dislocation-free 2inch Gallium Arsenide Crystal

## 1985

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- [ Privatization, the Birth of Nippon Telegraph and Telephone Corporation ]
- [ Establishment of Basic Research Laboratories ]
- Invention of Migration Enhanced Epitaxy (MEE)



## 1986

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- Development of High-Speed Fabrication of Single-mode Optical Fiber using the Full VAD Synthesis Process
- Invention of Phonocode Speech Encoding Method
- Development of Travelling Wave Semiconductor Optical Amplifier
- Invention of 1.5μm band Zero Dispersion Fiber
- Development of Planar Light Wave Circuit (PLC) Design and Fabrication Technology
- Development of DS Type Optical Connectors



## 1987

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- [ Establishment of LSI Laboratories, and Opto-electronics Laboratories ]
- Development of Ballistic Carrier Transistor (BCT)
- Fabrication of 16 Mbit Level DRAM TEST Devices
- Fabrication of Oxide Superconductor Thin Films
- Generation of Amplitude Squeezed Light in Semiconductor Lasers
- Successful control of Neurite Growth Orientation
- Successful Emission of SOR Light



1988

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- Development of High Speed LSI Probing Technology (EOS)
- Fabrication of Narrow Spectrum Line Width Multi-electrode DFB Laser
- Practical Use of SC Type Optical Connectors