



DOC.IV-7  
EDITION: 2025-Q3

VERTICALLY INTEGRATED SYSTEMS

# PRODUCT CATALOG

FIBER OPTICS & PHOTONICS

# 2025

**SCOPE:** Optoelectronic Components & Solutions

**APPLICATIONS:** Optical Communication, Consumer & Automotive

**KEY TECH:** VCSELs, PIN Photodiodes, SiGe BICMOS



# 01. WELCOME TO VI SYSTEMS

VI SYSTEMS (VIS) DEVELOPS AND MANUFACTURES CUTTING-EDGE OPTOELECTRONIC COMPONENTS FOR COMMUNICATION, CONSUMER, AND AUTOMOTIVE APPLICATIONS. LOCATED IN THE HEART OF BERLIN, WE ARE A FABLESS COMPANY SPECIALIZING IN ULTRA-FAST SOLUTIONS FOR OPTICAL INTERCONNECTS AND SENSORS.

OUR PORTFOLIO INCLUDES VERTICAL CAVITY SURFACE-EMITTING LASERS (VCSELS) AND PIN PHOTODIODES DELIVERING SPEEDS UP TO 224 GBPS PER CHANNEL, ALONGSIDE DRIVER AND AMPLIFIER ICS OPERATING UP TO 56 GBPS. OUR LATEST GENERATION COMPONENTS ENABLE ENERGY-EFFICIENT 400 GBPS PAM-4 TRANSMISSION USING SHORT WAVE DIVISION MULTIPLEXING (SWDM).



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## 03. TECHNOLOGY & SERVICES

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### INTEGRATED OPTICAL SOLUTIONS

WE PAIR STATE-OF-THE-ART SIGE BICMOS INTEGRATED CIRCUITS WITH OUR ULTRAHIGH-SPEED VCSEL AND PIN COMPONENTS TO DELIVER OUTSTANDING PERFORMANCE.

### WAFER MAPPING SERVICES

COMPREHENSIVE ELECTRICAL AND OPTICAL TESTING ON 2" TO 8" WAFERS AT TEMPERATURES UP TO 150°C.

### HIGH-FREQUENCY TEST & CHARACTERIZATION

ELECTRO-OPTICAL PERFORMANCE MEASUREMENT WITH DATA MODULATION ANALYSIS UP TO 128 GBIT/S.



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PRODUCT-GROUP: TRANSMITTERS

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## 04. VCSEL TRANSMITTER MODULES

### V25-850M

DATA RATE 28 GBPS (NRZ)

WAVELENGTH 850 NM

FIBER TYPE 50/125 MM

DATASHEET



### V50-850M

DATA RATE 56 GBPS (PAM-4)

WAVELENGTH 850 NM

FIBER TYPE 50/125 MM

DATASHEET



### VM100-850M

DATA RATE 112 GBPS (PAM-4)

WAVELENGTH 850 NM

FIBER TYPE 50/125 MM

DATASHEET



### T56-850

DATA RATE 56 GBPS (NRZ)

WAVELENGTH 850 NM

FIBER TYPE 50/125 MM

DATASHEET





# 05. OPTICAL RECEIVERS & PHOTODETECTORS

## R50-850

DATA RATE	56 GBPS (NRZ)
WAVELENGTH	700-870 NM
FIBER TYPE	50/125 MM

DATASHEET



## D30-850M

DATA RATE	112 GBPS (PAM-4)
WAVELENGTH	840-1650 NM
FIBER TYPE	50/125 MM

DATASHEET





# 06. INTEGRATED CIRCUITS (ICS)

## HIGH SPEED VCSEL DRIVERS

### A56-230C

DATA RATE            UP TO 56 GBPS

SUPPLY VOLTAGE 3.3 V

POWER                230 MW  
DISSIPATION

DATASHEET



### A56-105C

DATA RATE            UP TO 56 GBPS

SUPPLY VOLTAGE 3.3 V

POWER                105 MW  
DISSIPATION

DATASHEET





# 07. VCSEL & PHOTODIODE CHIPS

## HIGH SPEED VCSEL CHIPS

### V25-850C

DATA RATE	28 GBPS (NRZ)
WAVELENGTH	850 NM
PEAK OUTPUT POWER	4 MW

DATASHEET



### V50-850C

DATA RATE	56 GBPS (NRZ)
WAVELENGTH	850 NM
PEAK OUTPUT POWER	4 MW

DATASHEET







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## 08. CONTACT INFORMATION

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FOR ADDITIONAL INFORMATION OR TO RECEIVE A QUOTATION, PLEASE CONTACT OUR SALES DEPARTMENT.

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