



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).



VERTICALLY INTEGRATED SYSTEMS

DOC.IV-7  
TABLE OF CONTENTS

TRANSMITTERS

RECEIVERS

ICS

CHIPS

## 02. TABLE OF CONTENTS

---

02 WELCOME TO VI SYSTEMS

04 TECHNOLOGY & SERVICES

05 VCSEL TRANSMITTER MODULES

06 OPTICAL RECEIVERS & PHOTODETECTORS

07 INTEGRATED CIRCUITS (ICS)

08 VCSEL & PHOTODIODE CHIPS

09 CONTACT INFORMATION



VERTICALLY INTEGRATED SYSTEMS

DOC.IV-7  
SERVICES OVERVIEW

TRANSMITTERS

RECEIVERS

ICS

CHIPS

## 03. TECHNOLOGY & SERVICES

### 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.



## 04. VCSEL TRANSMITTER MODULES

### V25-850M

DATA RATE	28 GBPS (NRZ)
WAVELENGTH	850 NM
FIBER TYPE	50/125 MM

### V50-850M

DATA RATE	56 GBPS (PAM-4)
WAVELENGTH	850 NM
FIBER TYPE	50/125 MM

### VM100-850M

DATA RATE	112 GBPS (PAM-4)
WAVELENGTH	850 NM
FIBER TYPE	50/125 MM

### T56-850

DATA RATE	56 GBPS (NRZ)
WAVELENGTH	850 NM
FIBER TYPE	50/125 MM



# 05. OPTICAL RECEIVERS & PHOTODETECTORS

## R50-850

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

## D30-850M

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



# 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

### A56-105C

DATA RATE            UP TO 56 GBPS

SUPPLY VOLTAGE 3.3 V

POWER                105 MW  
DISSIPATION



# 07. VCSEL & PHOTODIODE CHIPS

## HIGH SPEED VCSEL CHIPS

### V25-850C

DATA RATE            28 GBPS (NRZ)

WAVELENGTH        850 NM

PEAK OUTPUT  
POWER                4 MW

### V50-850C

DATA RATE            56 GBPS (NRZ)

WAVELENGTH        850 NM

PEAK OUTPUT  
POWER                4 MW





VERTICALLY INTEGRATED SYSTEMS

DOC.IV-7  
CONTACT & INFORMATION

TRANSMITTERS

RECEIVERS

ICS

CHIPS

## 08. CONTACT INFORMATION

---

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

**ADDRESS** VI  
SYSTEMS GMBH,  
HARDENBERGSTRASSE  
7, 10623 BERLIN,  
GERMANY

**TELEPHONE** +49 30 3083143 30

**EMAIL** SALES@V-I-  
SYSTEMS.COM

**WEB** WWW.V-I-SYSTEMS.COM