



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

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

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 

V25-1550M


WAVELENGTH	1550 NM
DATA RATE	25 GBPS (NRZ)
FIBER TYPE	9/125 MM

DATASHEET 

05. OPTICAL RECEIVERS & PHOTODETECTORS


R56-850

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

DATASHEET 

D30-850M

3 DB BANDWIDTH > 30 GHZ
WAVELENGTH 840-1650 NM
FIBER TYPE 50/125 MM

DATASHEET 

D60M FC

INPUT 400-1650 NM
WAVELENGTH
3 DB BANDWIDTH > 60 GHZ
FIBER TYPE MMF/SMF

DATASHEET 




06. INTEGRATED CIRCUITS (ICS)

HIGH SPEED VCSEL DRIVERS


A56-230C

DATA RATE	UP TO 100 GBPS
SUPPLY VOLTAGE	3.3 V
POWER DISSIPATION	200 MW

DATASHEET 

A56-105C

DATA RATE	UP TO 56 GBPS
SUPPLY VOLTAGE	3.3 V
POWER DISSIPATION	105 MW

DATASHEET 

T56-250C

DATA RATE	UP TO 56 GBPS (NRZ)
DIFFERENTIAL GAIN	3.0 KΩ
POWER DISSIPATION	150 MW


DATASHEET 

08. ULTRA HIGH-SPEED VCSEL CHIPS

SERIES: VM100 (MM / MA-SM / QSM)

VM100 850

CHIP TYPE	MULTI-MODE
WAVELENGTH	840-860 NM
CONTACT	GSG

DATASHEET 


VM100 880

CHIP TYPE	MULTI-MODE
WAVELENGTH	870-890 NM
CONTACT	GSG

DATASHEET 


VM100 910

CHIP TYPE	MULTI-MODE
WAVELENGTH	900-920 NM
CONTACT	GSG

DATASHEET 


VM100 940

CHIP TYPE	MULTI-MODE
WAVELENGTH	930-950 NM
CONTACT	GSG

DATASHEET 


VM100 850 MA-SM

CHIP TYPE	MA-SM
WAVELENGTH	840-860 NM
CONTACT	GSG

DATASHEET 

VM100 850 QSM

CHIP TYPE	QSM
WAVELENGTH	840-860 NM
CONTACT	GSG

DATASHEET 



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PRODUCT-GROUP: CHIPS

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09. HIGH-SPEED VCSEL CHIPS

SERIES: V50 / VM50 / V25

V50 850

CHIP TYPE	MULTI-MODE
WAVELENGTH	840-860 NM
CONTACT	SG / GS

DATASHEET 


VM50 940

CHIP TYPE	MULTI-MODE
WAVELENGTH	930-950 NM
CONTACT	GSG

DATASHEET 


V25 940 HP MA

FEATURE	HIGH POWER (LIFI)
WAVELENGTH	930-950 NM
CONTACT	SG / GS

DATASHEET 


VM50 850

CHIP TYPE	MULTI-MODE
WAVELENGTH	840-860 NM
CONTACT	GSG

DATASHEET 

V25 850 HT

FEATURE	HIGH TEMP (125°C)
WAVELENGTH	840-860 NM
CONTACT	SG / GS

DATASHEET 

10. HIGH-SPEED PHOTODIODES (PDS)

SWDM-OPTIMIZED


D40 SWDM

CONTACT TYPE	GSG
DIAMETER	20 MM
BANDWIDTH	~40 GHZ

DATASHEET 


D35 SWDM

CONTACT TYPE	GSG
DIAMETER	25 MM
BANDWIDTH	~35 GHZ

DATASHEET 


D30 SWDM

CONTACT TYPE	GSG
DIAMETER	~23 MM
BANDWIDTH	~30 GHZ

DATASHEET 


D70 SWDM

CONTACT TYPE	GSG
DIAMETER	~25 MM
BANDWIDTH	~70 GHZ

DATASHEET 

D400G

CONTACT TYPE	GSG
DIAMETER	~16 MM
BANDWIDTH	~60 GHZ (25Ω)

DATASHEET 



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CONTACT & INFORMATION

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11. 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